

Dressed Up

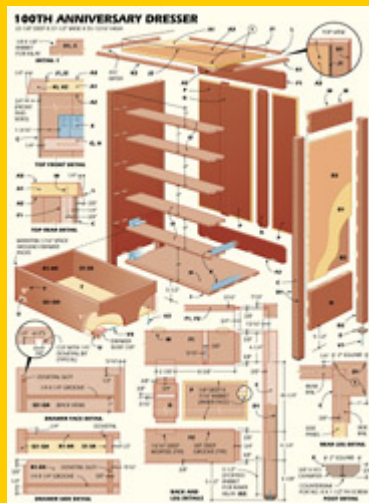
Fine wood and fine lines make this dresser a classic.



Our tall dresser provides a perfect complement to our bedroom suite. Once more, we have combined solid mahogany with figured pomele sapele veneer and wenge. With six spacious drawers, it offers plenty of room for storage. The drawers are mounted on top of the line, full-extension slides that provide complete access to drawer space while remaining almost invisible to the user. In the tradition of the finest furniture, we have included a completely finished back on the case, so you can be proud of this piece when viewing it from any angle.

The dresser's legs, rails, back-panel assembly and drawer fronts are all cut from solid mahogany. If you have trouble finding a local source for this wood, you can order it, as well as the veneer and wenge, from A&M Wood Specialties Inc.,

358 Eagle St. N., Box 32040, Cambridge, Ontario, Canada
 N3H 5M2; 800-265-2759. You also can order the materials
 from the company's Web site: www.forloversofwood.com.



MATERIALS LIST--DRESSER

Key	No.	Size and description (use)
A1	1	3/4 x 20-5/8 x 35-1/4" MDF (top core)
A2	as reqd.	mahogany (bottom veneer)
A3	as reqd.	pomele sapele (top veneer)
B1	2	3/4 x 17 x 34-3/4" MDF (side core)
B2	as reqd.	mahogany (inner veneer)
B3	as reqd.	pomele sapele (outer veneer)
C	4	2 x 2 x 54-1/4" mahogany (leg)
D1	12	1/8 x 1/8 x 54-1/4" wenge (inlay)
D2	4	1/8 x 1/8 x 5-1/2" wenge (inlay)
E	4	3/4 x 2 x 2" wenge (feet)
F1	1	3/4 x 5 x 33-1/2" mahogany (top rail)
F2	1	3/4 x 5 x 33-1/2" mahogany (bottom rail)
G	2	3/4 x 3-5/8 x 41" mahogany (mullion)
H	1	3/4 x 19 x 32" birch plywood (bottom)
I	1	3/4 x 3/4 x 32" mahogany (edge band)
J1	2	1/8 x 1/8 x 20-1/2" wenge (inlay)
J2	1	1/8 x 1/8 x 35-1/4" wenge (inlay)
K1	2	13/16 x 1-1/8 x 22-1/8" mahogany (edge)
K2	1	13/16 x 1-1/8 x 37-1/2" mahogany (edge)
L	1	13/16 x 3/8 x 35-1/4" mahogany (edge)
M	2	1 x 5 x 17" mahogany (rail)
N	2	1 x 9-3/4 x 17" mahogany (rail)
O	5	3/4 x 6 x 32" mahogany (rail)
P	3	1/2 x 9 x 40-1/4" mahogany plywood (panel)
Q1	1	3/4 x 4-7/8 x 31-7/8" mahogany (drawer front)
Q2	1	3/4 x 6-7/8 x 31-7/8" mahogany (drawer front)
Q3	3	3/4 x 7-7/8 x 31-7/8" mahogany (drawer front)

Q4	1	3/4 x 8-7/8 x 31-7/8" mahogany (drawer front)
R1	2	1/2 x 4-1/8 x 18-5/8" maple (drawer side)
R2	2	1/2 x 6-1/8 x 18-5/8" maple (drawer side)
R3	6	1/2 x 7-1/8 x 18-5/8" maple (drawer side)
R4	2	1/2 x 8-1/8 x 18-5/8" maple (drawer side)
S1	1	1/2 x 3-3/8 x 30-7/8" maple (drawer back)
S2	1	1/2 x 5-3/8 x 30-7/8" maple (drawer back)
S3	3	1/2 x 6-3/8 x 30-7/8" maple (drawer back)
S4	1	1/2 x 7-3/8 x 30-7/8" maple (drawer back)
T	6	1/4 x 18-1/8 x 30-7/8" birch plywood (drawer bottom)
U	12	1/2 x 1 x 2-1/2" mahogany (block)
V1	4	1-1/2" No. 8 fh woodscrew
V2	24	1-1/2" No. 8 rh woodscrew
V3	24	5/8" No. 6 fh woodscrew
W	as reqd.	No. 20 plate
X*	6	Drawer slide (pair)
Y*	12	Drawer pull

Misc.: Veneer tape; Titebond Extend glue (No. 38449, Rockler); 120-, 220- and 320-grit sandpaper; 4/0 steel wool; clear shellac, Waterlox Original Sealer/Finish (Waterlox Coatings Corp., 9808 Meech Ave., Cleveland, OH 44105).

* Slide, No. 30845, and pull, No. 35485, available from Rockler Woodworking and Hardware, 4365 Willow Dr., Medina, MN 55340.

Veneered Panels

It's axiomatic in veneer work that a panel should be balanced in its construction. This means that veneer of similar grain and density should be applied to both faces of the panel to keep it from warping. We used pomele sapele on the outer face and mahogany on the inside face. The species are close enough in density and expansion properties to provide a balanced panel.

We used a book-matched grain pattern on our panels. To do this, two adjacent veneer sheets are cut to the same size and grain layout. Then, one of the sheets is turned over to form a mirror image of the first sheet.

First, stack two sheets of veneer so that their grain is aligned. Mark a line across the top sheet and use a veneer saw guided by a straightedge to cut the veneer to size (Photo 1). Cut gently at the sheet's edge to avoid tearing it. It's also important to note that the adjacent sheet edges must meet perfectly. If necessary, join two sheets together and plane their edges so they are smooth and straight.

Next, use perforated paper veneer tape to join two adjacent sheets together. This tape has water-soluble glue that dries to hold the veneer sheets together. Moisten the tape with a damp sponge, and place it across the veneer's seam at 4- to 6-in. intervals (Photo 2). Then, run a continuous piece of veneer tape along the seam's length.

To glue and clamp veneer to a panel, you have to find a way of evenly distributing the pressure from the head of the clamp to the entire surface of the veneer. To do this, make cauls from scrap 2 x 4 lumber and plane a 1/6-in. crown into one edge of each caul. Next, cut two pieces of 3/4-in. plywood to the same dimensions as the panel you are gluing up. These are called platens. The cauls take the force from the clamp and spread it out, the platens further spread the clamping force from the cauls. The result is evenly applied pressure that bonds every square inch of the veneer to the core.

To begin the glue-up process, place scrap wood



Place veneers on a surface into which you can cut. Slice through the stack with a veneer saw guided by a straightedge.



Make the edges of two book-matched veneers perfectly straight and smooth, then join the sheets with veneer tape.



Place the bottom veneer facedown against a sheet of kraft paper on top of a platen, cauls and blocking.

blocking on the workbench to provide clearance for the head of the clamps. On top of the blocking, place the cauls, crown side up. Place a platen on the cauls and a sheet of kraft paper on top of the platen. Finally, place the veneer on the paper, with the veneer tape facing the paper (Photo 3).

Next, use a foam roller to coat one surface of the core panel with glue. We have had good results with Titebond Extend (see Materials List). Place the glue-covered face of the core against the sheet of veneer. Then, apply glue to the other face of the core. Position the sapele veneer, tape side up, over the core. Place a sheet of kraft paper over the veneer and a platen over the paper followed by the cauls, crown side down.

Position clamps at the center of the panel assembly and apply pressure. Place clamps outward from the center and keep applying pressure until the veneer is properly bonded to the panel (Photo 4). Let the glue cure for 2 hours, then remove the panel and let it air-dry. Scrape off the veneer tape and any glue that bled through the veneer face (Photo 5). Use the table saw to cut the panel to finished dimension.



Apply clamping pressure to the veneers and core starting at the center and working outward toward the ends.

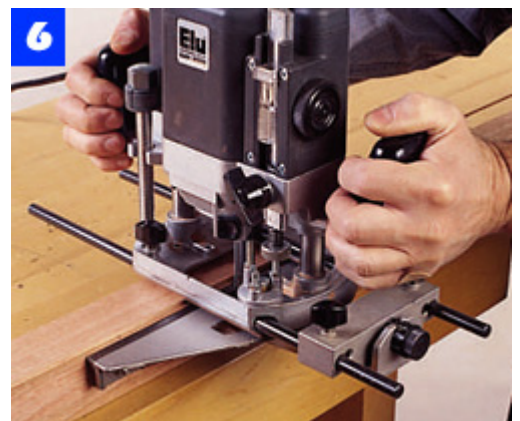


Cut the veneered panel to finished length and width, then remove the veneer tape using a sharp cabinet scraper.

Legs, Rails, Stiles, Panels

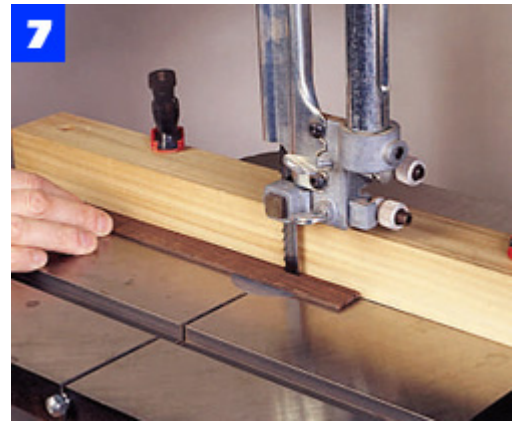
Rip and crosscut the mahogany for the legs. Next, use a router, fence and straight bit to cut the rabbet and stopped rabbet for the leg inlay (Photo 6). Joint one edge of the inlay straight and smooth, then rip the inlay slightly overwidth using a band saw (Photo 7). Glue and tape the inlay to the leg (Photo 8). When the glue has dried, trim the inlay flush using a block plane. Cut the feet to size and fasten them to the legs. Cut the chamfer on the feet using a sharp plane or on the table saw.

Use a plunge router, fence and spiral up-cutting bit to cut the rail mortises in the legs (Photo 9). Then, cut the ends of the mortise square with a chisel (Photo 10). Use the same setup to cut the panel grooves in the legs (Photo 11).



Clamp a leg securely to the bench. Using a router and straight bit, cut a stopped rabbet on the inside of the leg.

Rip and crosscut the material for the backpanel assembly. To cut the tenons on the rails, mullions and panels, install a dado blade in the table saw and an auxiliary fence. Butt the workpiece to the fence and run it over the blade. (Photo 12).



Rip the leg inlay into slightly overwidth strips. Guide the cut with a straightedge clamped to the band saw table.



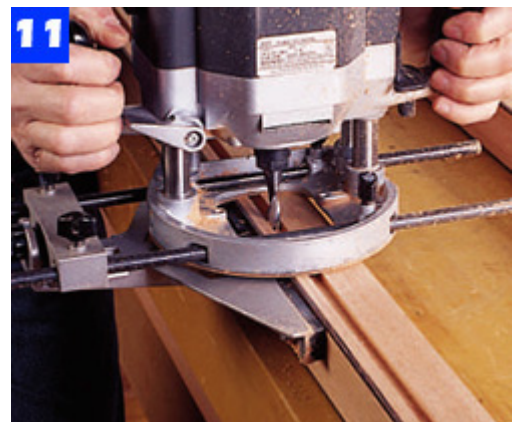
Apply glue to the leg rabbet and then press the inlay into the rabbet. Hold it in place with strips of masking tape.



Cut mortises in the legs after the inlay is trimmed flush. Use a plunge router and spiral up-cutting bit to cut the mortises.



Cut the bulk of each mortise with a router and mortising bit. Cut the ends of each mortise square with a chisel.



Again, use a plunge router and straight bit to cut the panel groove in each rear leg. Make two passes per groove.



Cut the tenons on the rails and stiles using a dado blade in the table saw. Butt the workpiece against a fence.

Case Assembly

Use a plate joiner to cut the necessary slots in those pieces that are joined with plates and glue. Begin the assembly process by gluing and clamping together the side panels and the rails. Next, glue and clamp the legs to the panel/rail assembly (Photo 13). After the glue is dry, cut the plate slots for the bottom assembly and the drawer rails (Photo 14). Use a straightedge to guide the plate joiner.

For the back assembly, glue and clamp the mullions to the bottom rail, then slide the center panel into its groove (Photo 15). Glue and clamp the top rail to this assembly.

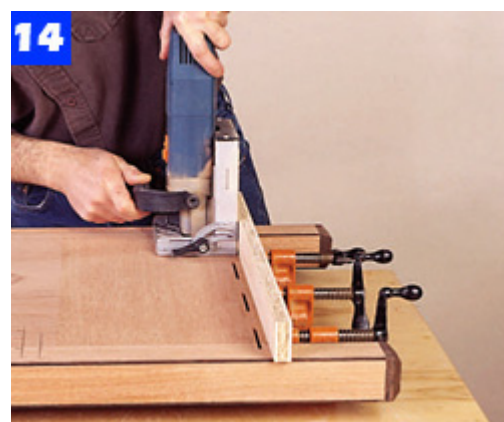
Rip and crosscut the edge banding for the bottom panel, and glue it to the panel's front edge (Photo 16). Trim the banding flush to the panel face. When the bottom is finished, glue and clamp it to the back subassembly and check that the two are square to each other. Next, slide in another back panel, and join the back/bottom assembly to a case side.

With that subassembly completed, use a straight piece of scrap lumber to maintain a square assembly and proper drawer rail spacing, then use plates, glue and clamps to join the drawer rails to the case side (Photo 17). Complete the case by sliding in the remaining panel, then gluing and clamping the second side in position.

Rip and crosscut the edge banding and inlay for the top. After cutting the rabbet in the top, glue the edge banding and inlay in place as was done on the legs. Trim these parts flush to the panel. Next, cut the bevel on the banding using a razor-sharp block plane (Photo 18). Cut the joining plate slots in the top, then join the top to the case with glue, clamps and joining plates.



Glue and clamp together the side panels and rails. Then, test fit this assembly with the legs before gluing.



Cut plate slots in the side assembly using a plate joiner. Hold the joiner along a straight piece of scrap.



Glue and clamp together the two center stiles and one rail. Slide in the center panel before attaching the other rail.



Glue and clamp the edge banding to the case bottom. When the glue is dry, plane the banding flush to the panel.



Use a piece of scrap marked with the drawer divider positions to ensure that the dividers are square to the case side.



After the edge banding is glued and clamped to the top, plane it flush, then cut the bevels with a block plane.

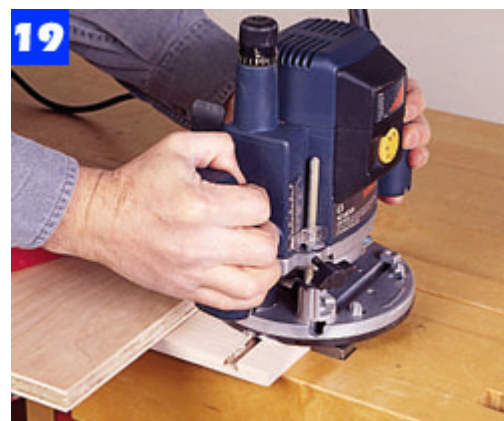
Drawers, Finishing

Rip and crosscut the materials for the drawers, then use a dovetail bit in a router to cut the dado slot for the front and back. Use a straightedge clamped across a workpiece to guide the router when cutting the dovetail slots (Photo 19). Use a straight bit and fence on a plunge router to cut the groove in the front and sides for the drawer bottom (Photo 20). Cut the dovetails on the drawer sides with the same router bit, but install the router in a router table and move the workpiece over the bit. If you use a traditional router table that holds the router vertically, you will also have to fashion a support to hold the drawer pieces upright as they move past the bit. Another option is to mount the router in an upright panel, then slide the workpiece horizontally under the bit. No matter which method you use, cut the dovetails on some long pieces of scrap and fine-tune the setup before cutting an actual workpiece. Dry fit the parts for each drawer after all the parts are cut. Then, glue and clamp the drawer parts together.

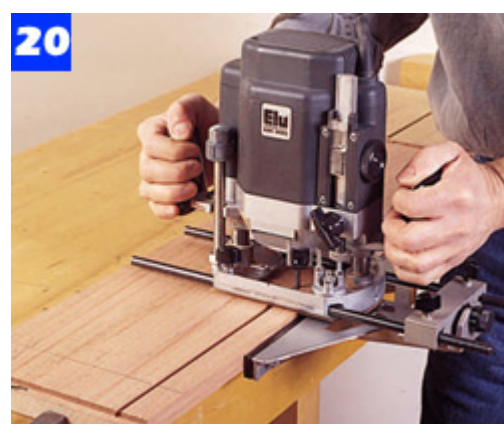
The Blum Tandem drawer slides used on this project require that stopped holes be bored in the drawer back. Use a piece of masking tape wrapped securely around the bit to act as a depth gauge, and then bore the holes (Photo 21). Also, install blocks under each drawer and against each drawer's front. Install the drawer slides per the manufacturer's instructions. Mount the drawers, test fit and adjust them as required. Remove the drawers and drawer hardware before moving on to finishing.

Finish the inside of the case and the drawers with clear shellac. Do not use the Waterlox finish on the inside because the strong odor it imparts to the wood does not dissipate in a closed space and can be transferred to clothing stored in the case. Apply three coats to each surface. Let each coat dry, and sand it with 320-grit sandpaper before applying the next. Smooth the last coat with 4/0 steel wool.

Finish the outside of the case and each drawer face with Waterlox finish (see the Materials List). Apply a liberal coat, and wipe off the excess after about 30 minutes. Leave the surface damp with



Cut the dovetail slots in the drawer front and sides with a router and dovetail bit. Guide the router with a straightedge.



Install a straight bit in the router. Then, using the tool's fence, cut the drawer bottom groove in the front and sides.



Use masking tape on a drill bit to mark a hole's depth, then bore the stopped holes in the back of each drawer.

finish, and let it dry overnight. Scuff the surface with 320-grit sandpaper, and apply a second coat using the same method. Apply the third coat in the same manner, then burnish it with 4/0 steel wool when it is dry.

Install the knobs on the drawers and reinstall the drawer hardware to complete the project.

