Martha's Vineyard Cupboard

A few summers ago my wife and I were traveling through Martha's Vineyard on vacation when we stopped at a small antiques store. On one wall was a simple hanging cupboard with two flat panel doors. Its simplicity and convenience caught my eye, and I had never seen one quite like it before. Rather than buying the piece I took a photo and thanked the storekeeper for her time. Once home I spent some time rethinking the cupboard and redesigned it to add some details, including the beading on the door edges and the back slats. The original had been made of pine, but I opted for a more dramatic bird's-eye maple for the exterior with painted poplar inside.

Here's how the cupboard goes together: sliding dovetails hold the top to the two sides. The center shelf and bottom rest in dadoes cut in the sides. To strengthen the cabinet, I use traditional square pegs to attach the shelf, bottom, face frame and doors. And I've got a great trick to get the pegs to fit easily. See the story "Square pegs, round holes" to learn how.

Construction begins by planing the wood to proper thickness, then cutting the top, sides, bottom and shelf to size. Next, using the diagram, mark the dado locations on the sides and cut the 1/2"-deep dadoes. Cut 3/4"-wide by 3/8"-thick rabbets on the sides to hold the back. The scroll work pattern can be downloaded HERE

The next step is to plough the dovetail slot in the top piece, then form the 1/2"-long sliding dovetail pin on the top end of the sides. Again, find the location for milling the top on the diagrams. A router table works well for both steps, running the top flat on the table, and the sides on end against a fence. Now cut a 1/2" roundover on the front and sides of the top.

With all the pieces milled, assemble the carcase. Dry-fit the pieces and clamp them in place. Unclamp the piece, add glue and reassemble the carcase. Clamp it up, then drill 1/4" clearance holes for the pegs through the sides and into the shelf and bottom and drive the 1-1/2"-long square pegs into the 1/4" holes.

The face frame uses mortise-and-tenon joinery for strength. Once you've cut the 1"-long tenons and the mortises, dry-fit the face frame. Locate and cut the recesses for the hinges on the stiles. Glue and clamp up the face frame. When dry, drill for pinning the mortise and tenon with square pegs. Then fit the frame to the front of the carcase, apply glue and peg the frame in place.

The back pieces use a 5/16" x 3/8" mating rabbet (or shiplapped joint) to allow movement in the pieces while still maintaining a gapless back. The back pieces rest in a rabbet cut in the sides, against the shelves and the hanging strip. The hanging strip is nailed between the sides and flush against the top, 3/4" in from the back edge. Once the back pieces are cut to size, run the mating rabbets on the edges (except for the two outside pieces). As a nice detail I used a moulding cutter head in my table saw to run a single bead on the inside edge of each piece. Test the fit of the back pieces, but leave them unattached at this time to make finishing easier.

The next step is to make the doors. Like the face frame, they are assembled using mortise-and-tenon joinery, with the rails captured between the stiles. The door tenons are 13/8" long. Cut a 1/4" x 3/8" deep groove in the center, inside edge of each door piece to hold the panel, which has a 1/4" x 5/16"-long rabbet on all four sides to form a tongue. Don't forget to cut a bead on the outside edge of each stile.

Assemble the doors using glue in the mortises, but keep the glue out of the panel grooves to allow the panel to float in the door frame. Again, the mortise-and-tenon joints are drilled and square pegs added for strength. After the glue is dry, locate and recess the hinge locations, then fit the doors, allowing space for the hinges.

The last construction detail is to add the intermediate and cove moulding to the underside of the top to finish off the upper section of the cabinet. The diagram shows the orientation of the pieces. Miter the moulding to fit, then nail it in place.

Paint the interior of the cabinet. The exterior is finished with a homemade finish of equal parts boiled linseed oil, varnish and turpentine. I follow that up with a coat of wax. After the finish has dried, attach the hardware, doors and add wall hangers for mounting the cabinet.**PW**