Common wood from a common source creates an uncommon beauty.
I began my study of the Shaker furniture at Pleasant Hill, Ky., with a quick survey of the contents of the enormous Centre Family Dwelling, sticking my head in the door of each room, making a mental note of everything that caught my eye: a table here, a chair there, a little blanket chest, a tripled clothes hanger.

Each item on my mental list had something about it that set it apart from other objects in the Dwelling. In some cases, it was a splash of color, in others a bit of intriguing joinery, in others a form that deviated from Shaker norms. In this manner, I chugged along for maybe half an hour. Looking, storing and getting excited about the prospect of looking more closely later on.

Then, in a room on the second floor, I saw this cupboard hanging from a peg rail above a wash stand. I stuck my head in, caught my breath, released it and then slowly entered the room. The cupboard was familiar (Christian Becksvoort’s book “The Shaker Legacy” [Taunton]), but I had forgotten about it. I know I wasn’t expecting to see it there.

I stepped over the low railing erected to keep the public at a distance. (I had permission from the curator.) I stuck my nose close to the piece to study the pegs that penetrated the joinery of the frame-and-panel door, then backed off. This was something special, something profoundly Shaker, something that – unlike many pieces in the Pleasant Hill collection – could never be attributed to country origins.

The editors at Popular Woodworking had sent me and the magazine’s photographer, Al Parrish, to the Shaker Village to write and illustrate a couple of articles about Western Shaker construction methods and design.

Nobody told me to do any measured drawings, but when I took the job, I was pretty sure I’d end up drawing at least a few pieces, and as soon as I saw this cupboard, “pretty sure” changed to dead certain.

Material from a Home Center

I usually buy lumber from hardwood dealers – businesses that typically require a 100 board feet (bf) minimum order. So I can’t buy, for instance, 75 bf of curly maple or 50 bf of cherry.

In most cases, I don’t mind these minimums. I always need cherry, walnut and curly maple. But sometimes, I don’t really want 100 bf of a particular species, and anyone buying small lots of hardwood at stores catering to woodworking hobbyists will find he needs the support of a full-time cardiologist when they check out at the cash register.

Recently, I’ve been experimenting with another source for poplar: my local home-center store. All the big home-center stores charge more per board foot than hardwood dealers. But there are some good reasons to consider these type of suppliers for poplar (and pine).

For one thing, the material has been surfaced, and let’s face it: One of the more odious chores is flattening and thicknessing material. But here’s a more important reason: I can buy only perfect boards. If there’s a knot, a split, a bit of wane, I don’t buy it. If it’s not perfectly flat – and I mean billiard-table flat – I put it back.

Try that with a hardwood dealer. He might let you set aside a few boards with egregious defects, but if you reject eight boards out of 10, he might decide he doesn’t want your business after all.

Assembling the Case

I chose to use 8d coated nails to assemble the cupboard because the nail heads visible on the original are about the size of 8d nail heads, and I knew 8d nails, which are 21⁄4” long, would result in a solid construction. Eight penny

by Kerry Pierce

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nails are big for this application, and I think you could have good results with a 7d nail as well, but I wouldn’t recommend anything smaller than that.

Initially, the whole nail thing made me uncomfortable. I’ve spent too many years cutting wood-to-wood joinery to embrace this (sac- rilegious?) method of work. But early in the construction process, I had to remove a piece I’d nailed in the wrong location, and let’s just say I’m convinced this little cup- style is worth the trouble. There’s an extra length is in the long cove. The length I give in the materials list is the length of the Shaker original to match the drawing.

* I made the knob 1/2" longer than the original knob. This was a mistake, one I didn’t notice until I prepared the materials list. The extra length is in the long cove. The length I give in the materials list is the length of the Shaker original to match the drawing.

** The hinges on my reproduction also are historically inaccurate. The hinges on the original are 11/2" long (as they appear on my drawing). Here, too, I made a mistake. I marked and mortised for a pair of 2"-long hinges, thinking – for some reason – I was working with 11/2"-long hinges.

Although the bead on the Shaker original was likely made with a scratch stock (because there is evidence of this tool everywhere at Pleasant Hill), I chose an 1/8" side-bead plane.

After nailing the carcase together, fit the shelf and tap it into its dados. The original cupboard has only one shelf, although there are dados for two equally spaced shelves. I thought that an interior divided into only two compart- ments, instead of three, made more sense on this modest-sized cup- board, so I eliminated the sec- ond shelf the original cupboard had at birth. This gave me a fairly small compartment above and a larger compartment below.

After the shelf has been nailed into place, level the cabinet front and back with a plane. The cupboard has 1/8" beads along each of the front corners and around the door frame. The beads on the corners are cut on both the front and side of the vertical parts of the cupboard front.

This produces a bead that’s visible from either perspective.

If you haven’t used a moulding plane, an 1/8" side-bead plane (shows at left) is a great place to start. You can find these relatively common planes at flea markets, antique malls and, of course, on eBay. But you must be sure to pur- chase a plane with a reasonably straight sole. Some have bowed beyond repair in the century and a half since their creation. “Reason- ably” straight, however, doesn’t mean “perfectly” straight. This little 1/8" side-bead plane I’m using here has a bit of a bow but it still works fine.

Unlike most moulding planes, which are designed to be held at an angle (the spring angle), side- bead planes are designed to be held upright, their sides perpendicular to the surfaces being worked. Set the iron so that it’s barely visible when you sight along the sole of the plane, tap the wedge firm, then crowd the plane’s fence against

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### PLEASANT HILL SHAKER CUPBOARD

**NO.** | **ITEM** | **DIMENSIONS (INCHES)** | **MATERIAL** | **COMMENTS**
---|---|---|---|---
1 | Top | 3/8 x 7/12 x 31/16 | Poplar | 
2 | Bottom | 13/16 x 7/12 x 32 | Poplar | Stock can be slightly oversize
3 | Sides | 13/16 x 5/8 x 17 13/16 | Poplar | 
4 | Face frame top rail | 13/16 x 2 1/2 x 20 | Poplar | 
5 | Face frame rail | 13/16 x 1 5/8 x 20 | Poplar | 
6 | Face frame stiles | 13/16 x 5/16 x 17 13/16 | Poplar | 
7 | Sub top/bottom | 7/16 x 5/8 x 29/16 | Poplar | 
8 | Sides | 13/16 x 5/8 x 17 13/16 | Poplar | 
9 | Shelf | 3/4 x 5/8 x 30 | Poplar | In 5/8" x 3/8" dados
10 | Door rails | 13/16 x 2 1/2 x 16 1/2 | Poplar | 2 1/2" tenons on each end
11 | Door stiles | 13/16 x 3 15/16 x 13 1/2 | Poplar | 
12 | Door panel | 3/16 x 8 1/2 x 13 | Poplar | 1/16" gap all around
13 | Hangers | 3/16 x 2 1/2 x 27 | Poplar | 
14 | Backboards | 3/16 x 30 1/2 x 17 13/16 | Poplar | Random widths to fill 30 1/2"
15 | Knob | 1/4 x 1 x 13/16 | Walnut | 
16 | Catch | 1/4 x 1/16 x 3/4 | Walnut |
the edge of the work and push the plane forward. If you have the right amount of iron exposed, a tiny shaving will squirt out the side of the plane. (Test the plane’s setting on scrap before working on the cupboard stock. A rank iron—one set too deep—can tear out the bead.) After a half dozen passes, you will have defined a neat little bead and quirk.

If you prefer routers, there are 1\(\frac{1}{8}\)" bead cutters available that will simulate the work of this plane. Cutting the bead around the door on the face frame stiles of the cupboard front requires a little trickery because you simply can’t do it with a properly set up side-bead plane. This is because the bead doesn’t run all the way to the ends of the boards on the face-frame stiles (although the bead does run from end to end on the face-frame rails so these beads can be cut in the way I’m demonstrating here.)

Caveat: The Shaker maker might have done this with a scratch stock. A scratch stock is nothing more than two pieces of scrap wood between which is sandwiched a small bit of metal filed to the necessary profile. The wood part of the scratch stock provides a way to hold the metal at the necessary angle without damaging the craftsman’s fingers (it also stabilizes the metal), while the metal cuts the bead with a scraping action. It’s simple but effective when properly sharpened.

You can, however, cut the stopped bead on the face-frame stiles of the cabinet front with a side-bead plane if you cheat a little. Tap the iron down so that it hangs an extra \(\frac{1}{8}\)" or so from the sole of the plane. That will allow the iron to engage the work when the sole of the plane is not riding down on the bead you’re cutting. You are in effect, using the side-bead plane as a beading tool. This too is something you should experiment with on scrap before trying it out on the good stuff.

Nail the components of the face frame into place. After the frame has been attached, you’ll then finish the bead around the door with a paring chisel as shown above, followed by sandpaper.

The junction of the horizontal and vertical beads must be completed with a little paring chisel work.

The cupboard top and bottom both have radiused edges. The top has a 180° radius, the bottom only a 90° radius. These radii can be formed with moulding planes (or roundover bits in a router), but I’ve always made this shape with a bench plane as I’m doing above. You’ll be amazed at how quickly you can do this work—much more quickly than you could set up a router to perform the same operation, and of course working with a plane means no dust and no noise. The shop remains quiet enough so you can plan the next few steps in the construction process.

If you choose my method, you’ll first need some pencil lines to plane between. One of these lines should identify the midpoint of the board’s edge. The other line should be placed on an adjacent surface a distance from the edge that is equal to half the thickness of the board.

To create the radius, simply remove shavings in the area between these lines until, working by eye, you’ve established the rounded edge.

You should create the radii on the ends of the board before tacking the long-grain radius to avoid tear-out at the corners.

Nail the shiplapped backboards onto the back of the carcase. Then nail the top and bottom in place.

**Making the Door**

The cabinet took me maybe three hours to assemble. The door took a day and a half to build and fit. In part, this is because the door is the only element with any tra-