

# A Little Masterpiece

Block-front document cabinet will challenge your skills

BY RANDALL O'DONNELL

As much as any known specimen, this 1750s document cabinet displays the creativity of the Rhode Island block-front style. Exquisitely crafted, this small piece possesses the features of the very best furniture made by the very best craftsmen. Most of the techniques are similar to those required to build any Newport block-front case piece. However, while you will save on materials, don't expect to save on time: The details and construction on such a small scale are very challenging (besides carving three fans, there are 271 hand-cut dovetails). This project will push your woodworking skills to a new level, but you will be rewarded with an exquisite piece of furniture.

## Start with the carcass and its dividers

The 15 half-blind dovetails that join each corner of the carcass typify the no-expense-spared tone of the design. The half-pins at the front allow for the mitered corners, and those at the back accommodate the rabbet. The miter is not at 45°, because it starts ¼ in. from the outside edge of the sides.

Once the carcass has been dry-fitted, rout the grooves for the main vertical dividers and the drawer dividers, stopping short of the front edge. The V-shaped terminus for the drawer divider grooves is made with a chisel and a mitered scrap block. Work a fillet and quarter-round on the inside edges of the carcass and on both sides of the vertical dividers.

The base is pine with a front section of mahogany. Unlike the original, I joined these two pieces with the giant dovetail more commonly seen in Boston case work because I think this is a superior construction method. You can cut the front molding on the mahogany either before it is joined to the pine or after the whole base has been dovetailed. I used a router to establish the fillets and flats and then hand-carved the remainder. Once all of the dados and carving are done—but before gluing the carcass together—run a rabbet inside the back edges to accept the back boards.

With the carcass glued, make the partitions. The drawer dividers on both sides of the center compartment are identical. Unlike the original antique, where the dividers are about 7 in. wide, on this piece they run to the back of the case. The front edges of the



vertical dividers in the center compartment have a birdlike profile. The dividers fit in  $\frac{1}{8}$ -in.-deep by  $\frac{1}{4}$ -in.-wide dadoes.

After cutting, profiling, and dadoing the valances and the horizontal and vertical partitions, slide them in from the back of the case. First, dry-fit the two main vertical dividers, marking and trimming them to width. After gluing them in, dry-fit the drawer dividers and the interior partitions and glue them in place.

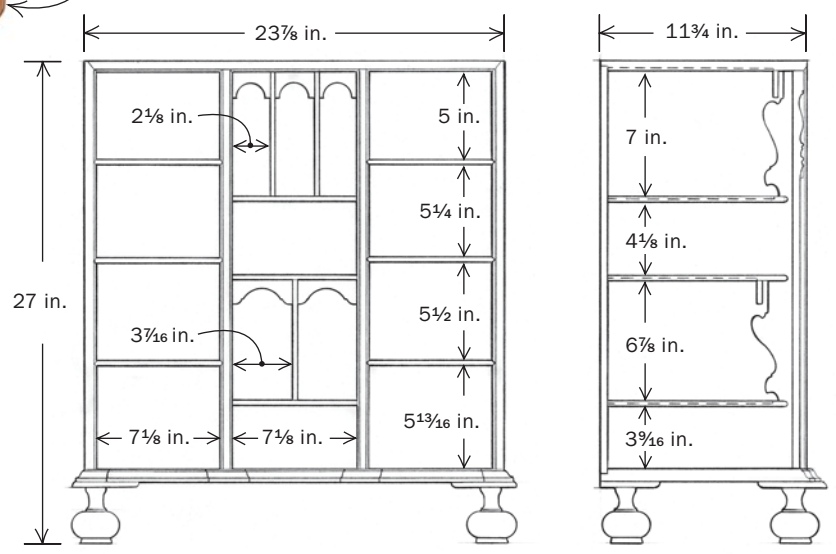
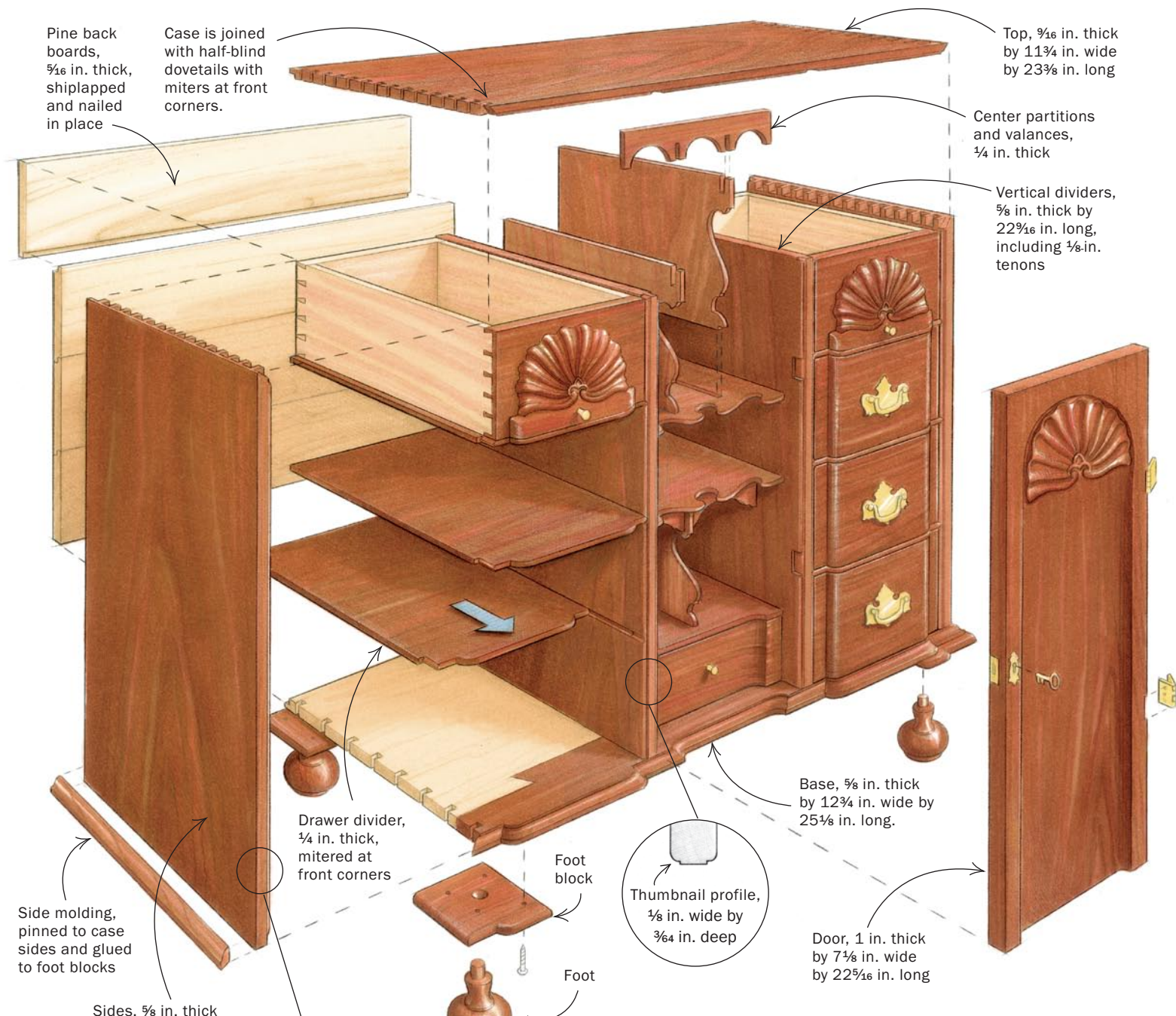
### Drawers require hand-cut dovetails

The sides, backs, and bottoms of the drawers are all  $\frac{3}{16}$  in. thick. I resawed  $\frac{1}{4}$  mahogany stock to economize on lumber and to end up with book-matched drawer sides. The drawer fronts are  $\frac{3}{4}$  in. thick. Carve the quarter-rounds that form the block fronts with a gouge and then file and sand them smooth. The top drawers have an applied convex shell, so resaw the drawer front to  $\frac{3}{8}$  in. thick, saving the other half of the stock for the carved shells, to be reapplied later.

No router will be able to cut the narrow dovetails found on the drawers of the original cabinet. Instead, I used a thin-kerf Japanese saw to cut the joints. Run the rabbet for the drawer

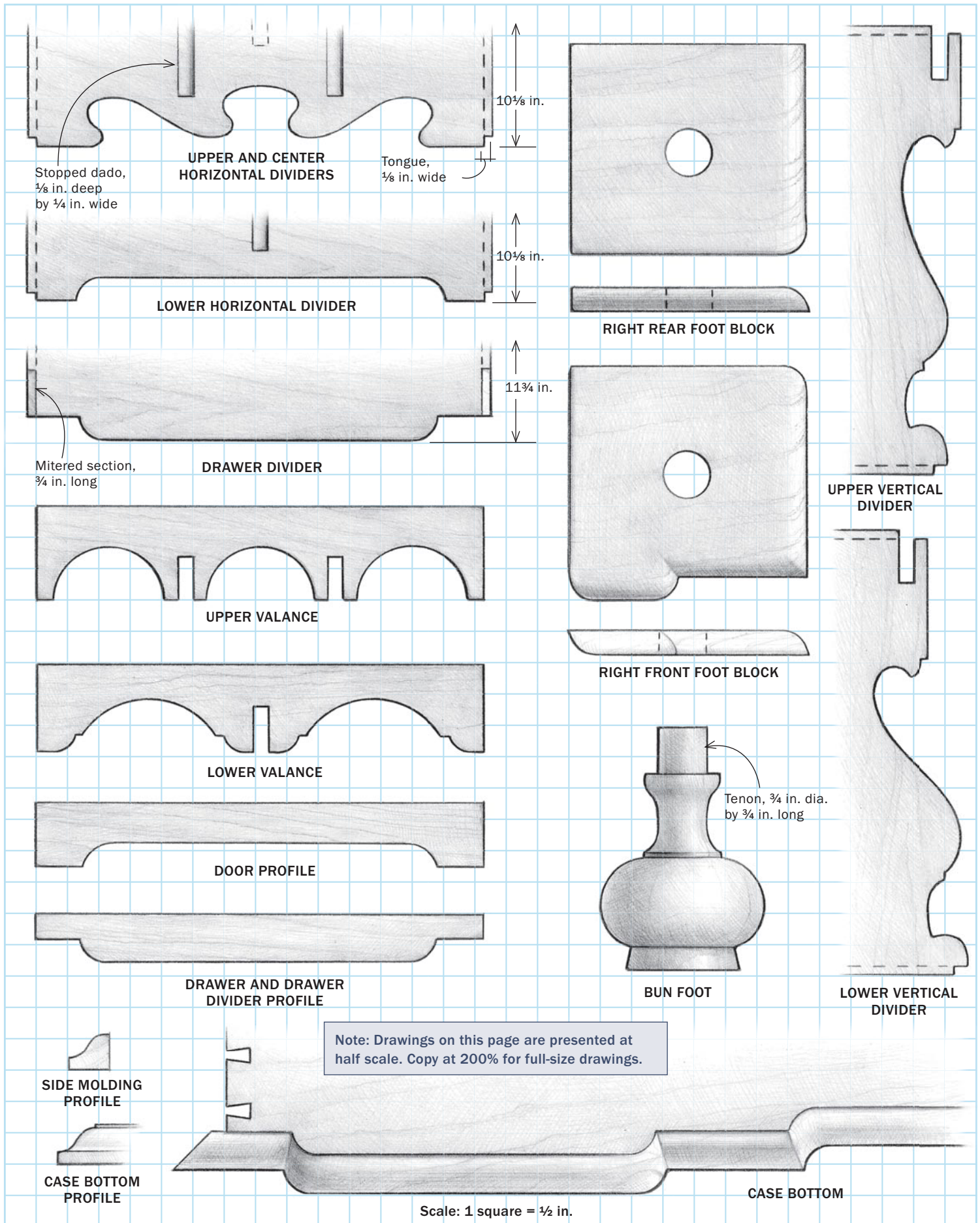


**Inside and outside come together.** After the carcass has been assembled, the dividers and valances are slid in from the back (above). The profiles of the drawer fronts match those of the drawer dividers and the base.



### MAHOGANY DOCUMENT CABINET

The small size of this project allows you to spend money on some really good lumber. The author made the drawer sides from book-matched mahogany, but you can use a secondary wood (as shown here) and be faithful to the original.



bottoms in the drawer front and the sides. Now assemble the drawers.

### Carve the shells

I like to attach the drawing of the shell to the resawn blank using dry-mount adhesive. After establishing the outer profile on the bandsaw and with files, mark out the *fleur-de-lis* with various gouges. Use a ballpoint pen to draw over the rays of the shell on the drawing. Peel away the paper, and then darken the impressions with a pencil. To achieve a perfect match, place the shells back to back toward the end of the process, which will allow you to easily detect any differences.

Carve the door from a 1-in.-thick board, removing the bulk of the concavity with a router. The large shell is carved in the same manner as its smaller cousins. Carve the perimeter of the shell first; work the rays, saving the interior *fleur-de-lis* for last. This *fleur-de-lis* is a carbon copy of those on the convex shells.

### The feet and the finish come last

The small blocks under the base, whose sides are visible as quarter-rounds, can be drilled on the drill press to accept the turned tenon of the bun feet. Once glued on, they serve as a guide to drill the hole deeper into the case bottom. Stop the hole just shy of breaking through. Turn the feet, fit them, and then tape the turned tenon, so you can apply a finish to the feet while they are on the lathe prior to gluing in place.

Finishing begins with a mahogany aniline dye sealed with a thinned coat of shellac. Fill the grain with paste filler, and then apply several coats of shellac until a flat surface is obtained. Rub out the finish with steel wool and wax. □

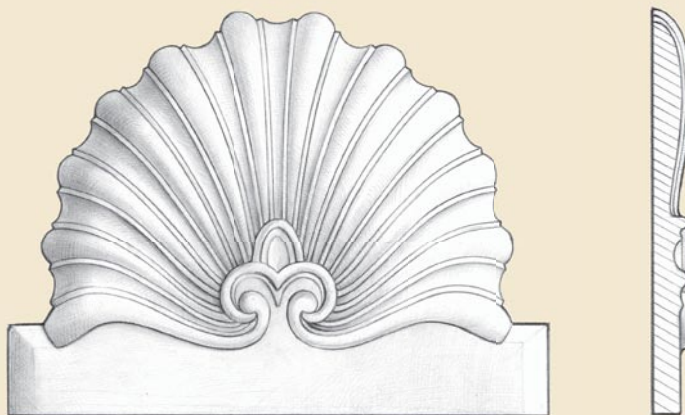
*Randall O'Donnell is a period furniture maker in Brown County, Ind.*

## Carving the shells



The cabinet is graced by two convex shells, which are carved from wood resawn from the top drawer fronts and then reapplied. A third, concave shell is carved into the central door. While the concave and convex shells are similar, only the central *fleurs-de-lis* are identical.

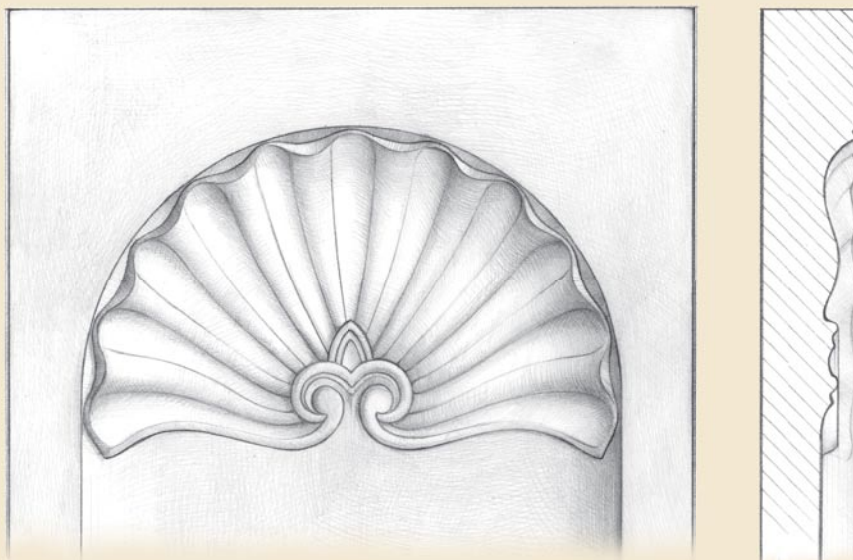
**CONVEX SHELLS ARE APPLIED TO THE DRAWER FRONTS**



Note: Drawings on this page are presented at half scale. Copy at 200% for full-size templates.



**THE CONCAVE SHELL IS CARVED INTO THE DOOR**



### HARDWARE SOURCES

#### BALL & BALL

[www.ballandball-us.com](http://www.ballandball-us.com); 610-363-7330

Part	Catalog No.
2¼-in. boring Chippendale pull	6x C29-081
¾-in.-dia. solid plain knob	2x G17-136
¾-in.-dia. solid plain knob	1x G19-144
1¼-in. x 1½-in. left-hand door lock	1x TCB-010
Escutcheon, 1½ in. high	1x L95-046

#### LONDONDERRY BRASSES

[www.londonderry-brasses.com](http://www.londonderry-brasses.com); 610-593-6239

Part	Catalog No.
1-in. hinge	2x H26



1

**Carve with a template.** Spray-mount the convex shell design to the carving blank. Bandsaw and carve the edge profile and then define the fleur-de-lis with carving tools.



2

**Trace the shell.** With a ballpoint pen, draw over the lines defining the rays of the shell. The pressure will create faint lines in the wood, visible when the template is peeled away.



3

**Form the convex profile.** First establish the basic convex shape of the shell, redraw the lines of the rays, and then relieve the base of the shell.



4

**Define the rays of the shell.** Use a V-parting tool to create the veins that divide the convex and concave rays of the shell.



5

**Form the concave rays.** Use both V-parting tools and sweep gouges to carve the concave rays first.



6

**Round over the convex rays.** An inverted fishtail gouge works well to establish the convex rays.



1

**Shape the cabinet door.** Use a router to remove the bulk of the wood from the recessed center of the door and gouges to create the curves. Use a V-parting tool to define the edge of the shell.



2

**Carve the concave shell.** As with the convex shell, first establish the perimeter profile, then the fleur-de-lis. Establish the main profile, and finally create the rays. Spoon gouges work well in the concave sections.



3

**Alternative shaping tools are useful.** In difficult grain or confined locations, files, rasps, and rifflers come in handy.