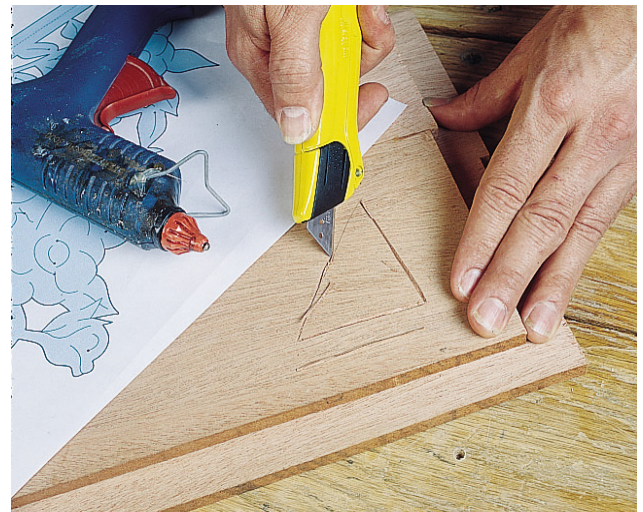




# Rose Inspired Corner Shelf

The best thing about woodworking is there's as much joy in creating a handmade gift as there is in receiving one. And while all the tools in my shop are fun to use, when it comes to gifts, there's something extra special about the scroll saw. A good pattern and a couple of hours on this tool can transform a simple board into something akin to sculpture.

For example, the intermingled flowers and leaves in this corner shelf pattern suggest movement, growth and a measure of depth that goes well beyond the simple planes of the wood itself. I chose Honduras mahogany for this project because of its straight grain, easy availability and structural stability. Mahogany is relatively soft, as hardwoods go, and its regular growth rings and lack of brittleness make it ideal for intricate scrolling. My local lumberyard carries a wide range of mahogany boards in various thicknesses: I found some nice 1/2" stock and planed it down to 3/8" before cutting the four parts to the sizes shown in the Materials List. The two shelf sides (pieces 1 and 2) are



**Photo 1:** The side pieces are sized so you can hot melt glue them together outside of the pattern. Scoring a shallow v-groove with a utility knife holds the glue at bay.

listed larger than their final dimensions; the excess will allow you to attach them to each other later on for stack cutting.

## Attaching the Pattern

The 90° joint used to hold the two sides of this shelf together is a simple butt joint. To keep a symmetrical appearance, the right side is cut 3/8" wider than the left. Before you attach a pattern to the left side, you should joint the edge that meets the right side and dry fit it to make sure you'll have a nice, tight joint.

Make a photocopy of the full-size pattern, then use a spray adhesive to attach it to the blank for the left (narrower) side. The differing dimensions of the side pieces will provide a 3/8" offset when you stack them. This will accommodate the long center butt joint. Remember, the two sides are mirror images of each other, so have the nicer grain patterns facing each other as you cut.

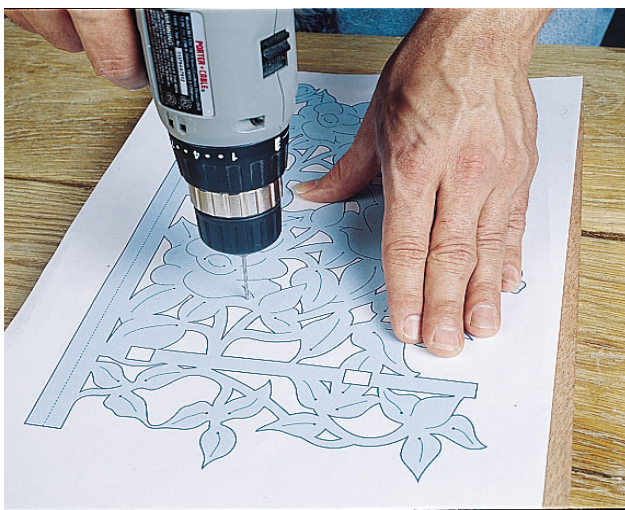
Taking advantage of the excess stock at the top and bottom of each blank, apply a couple of drops of hot melt glue in these areas. Be sure the glue stays in the waste areas, and doesn't migrate into the sides. One way to do this is use a sharp knife to score a shallow V (see *Photo 1*) into each piece of wood just outside the pattern, to act as a glue trap.

## Cutting Sequence

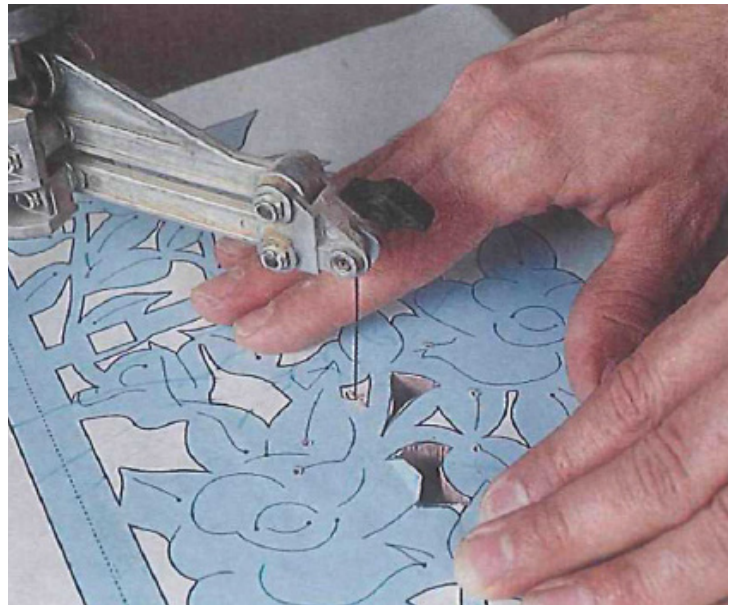
This is a delicate piece and can easily be damaged. Keeping that in mind, work from the center of the pattern out to the edges. Even though you are cutting through 3/4" of lumber, keep in mind that mahogany is a relatively soft material. Practice on scrap before tackling the workpiece to get a feel for the way each blade behaves.

When you're ready to get moving on the actual project, begin each cut by drilling an access hole to insert the blade (find these hole locations on the pattern). Use the smallest drill bit which allows you to insert the blade (see *Photo 2*). This is a good reason to use fret blades rather than standard scroll saw blades: the latter are usually pinned at each end, so inserting them in a very small hole is impossible.

Be careful while cutting out the larger waste areas (see *Photo 3*), as the two layers may suddenly find themselves free of the surrounding stock before you're ready. This release of pressure may cause your blade to jump and cut outside of the pattern. Once the larger waste areas are removed, move on to the delicate veining cuts, again starting at the center and moving outward.



**Photo 2:** Use the smallest drill bit possible when drilling your fret blade insertion holes. This helps you to make the delicate vein-cuts.



**Photo 3:** Stacking the two 3/8" pieces together reduces overall cutting time, but can present problems when waste pieces are freed up. Be sure to keep a steady hand as you reach the end of each cut.

A simple block sander is the most effective way of cleaning up the edges of the pattern, especially the more ragged saw marks. Of course, because you stack cut these two pieces, you will only have to deal with one set of saw marks.



To ensure proper symmetry, the two sides of this piece are stack cut together.



## The Shelves

Use the same procedure for cutting the shelves (pieces 3 and 4) as you did for the sides. Don't stack the shelves (they differ in size), just apply the pattern, install the same type of blade and cut and sand each shelf to its final shape.

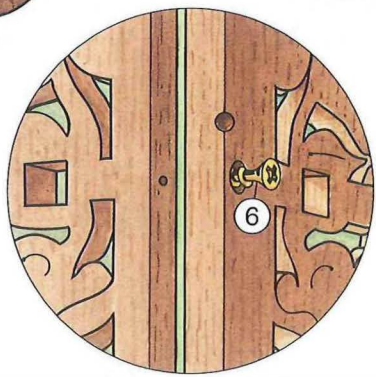
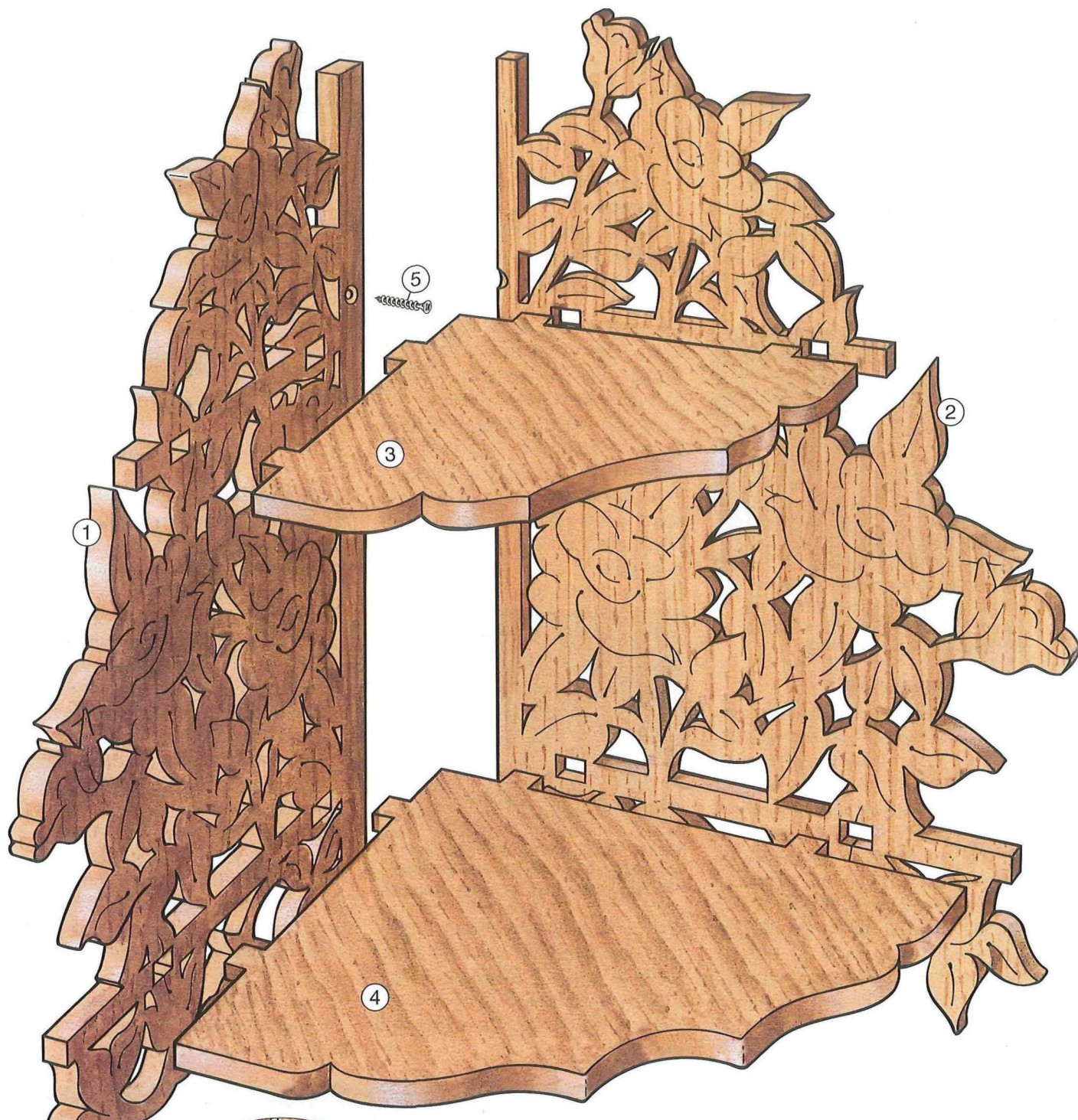
Note there are tenons on the back edges of the shelves. These are part of the pattern, and can be cut with the fret blade. The mortises have already been cut into the shelf sides as a part of the pattern. Good mortise and tenon joinery requires tight fitting joints. Carefully dry fit the mortises and tenons and sand and file until you are satisfied.

## Sealing and Assembly

There are few finishes as suitable for natural, unstained stock as Danish Oil: it gives your work a beautiful, rich luster while sealing it from the elements. To get at all the hard to reach spots you just created, I recommend dipping the pieces in a shallow bath of oil. Remove them after a minute and wipe off the excess. Let each piece dry completely before applying additional coats. After the last application dries, I spray on a topcoat of semigloss polyurethane, for a tough, enduring finish. If you wish to do likewise, make sure the finishes are compatible before proceeding.

Insert the tenons on the two shelves into one side, then slide the second side into place. Secure the sides together with brass screws (countersinking and predrilling first) and then predrill and countersink the hole for the mounting screw (see illustration on pullout pattern). Your scroll sawn shelf is ready for hanging.

One last thought: this is a delicate piece that is somewhat more sturdy after assembly than before. If you're shipping it to someone who won't be very comfortable assembling it, I suggest you ship it already put together. Either way, I guarantee the recipient will be overjoyed with your wonderful new creation.



**Corner Detail**  
(Back View)

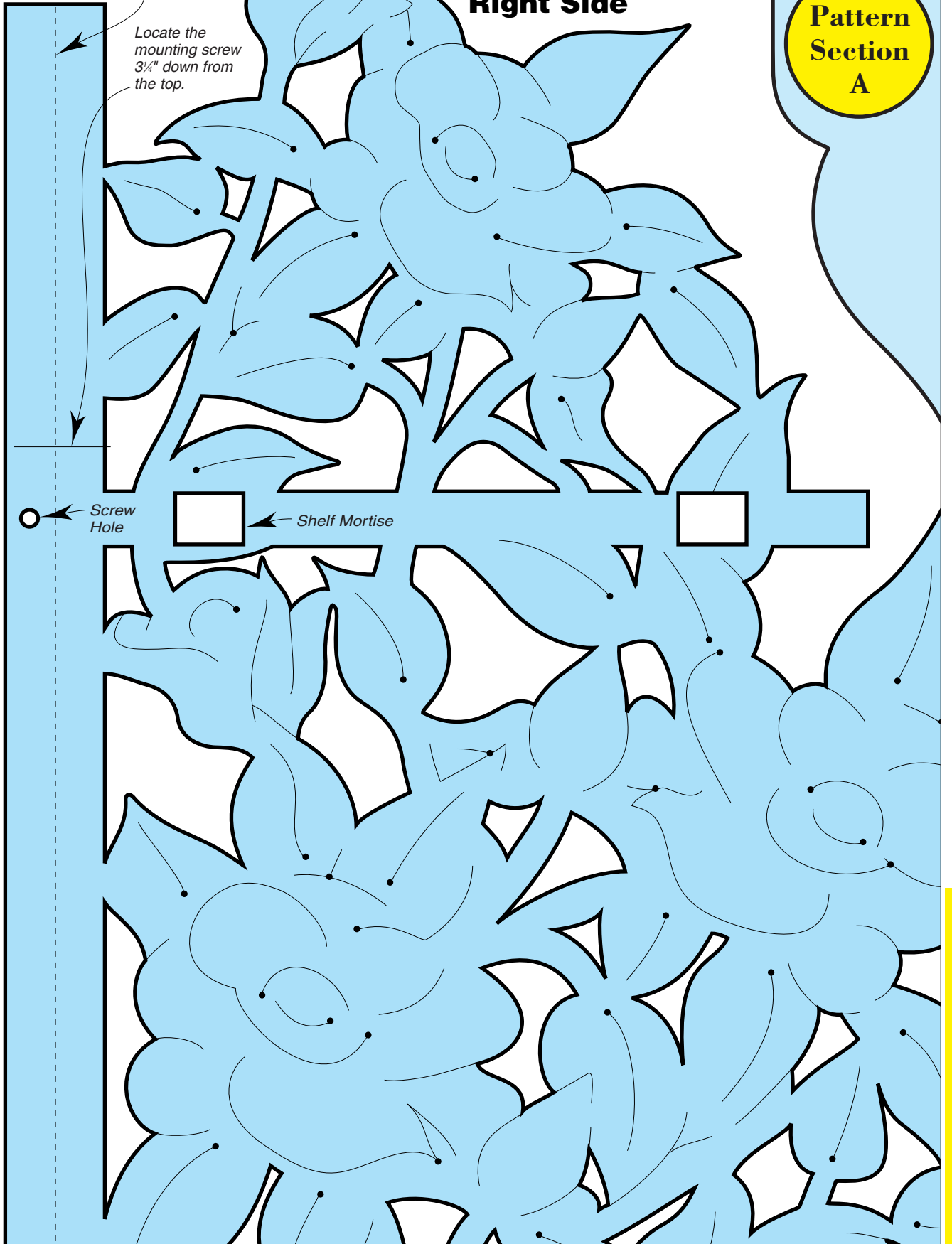
### MATERIAL LIST

	T x W x L
1 Left Side (1)	3/8" x 10 1/2" x 15"
2 Right Side (1)	3/8" x 10 1/2" x 15"
3 Top Shelf (1)	3/8" x 8 3/8" x 6 3/8"
4 Bottom Shelf (1)	3/8" x 11" x 8 1/2"
5 Screw (1)	#4 x 1" Brass
6 Screws (2)	#6 x 1" Brass

To keep a symmetrical appearance and to form a strong corner joint, the shelf's right side (piece 2) is 3/8" wider than the left.

**1 & 2**  
**Left and Right Side**

**Pattern Section A**



Align with Section C Here

Align with Section B Here

Shelf Tenon →

4

**Bottom Shelf**

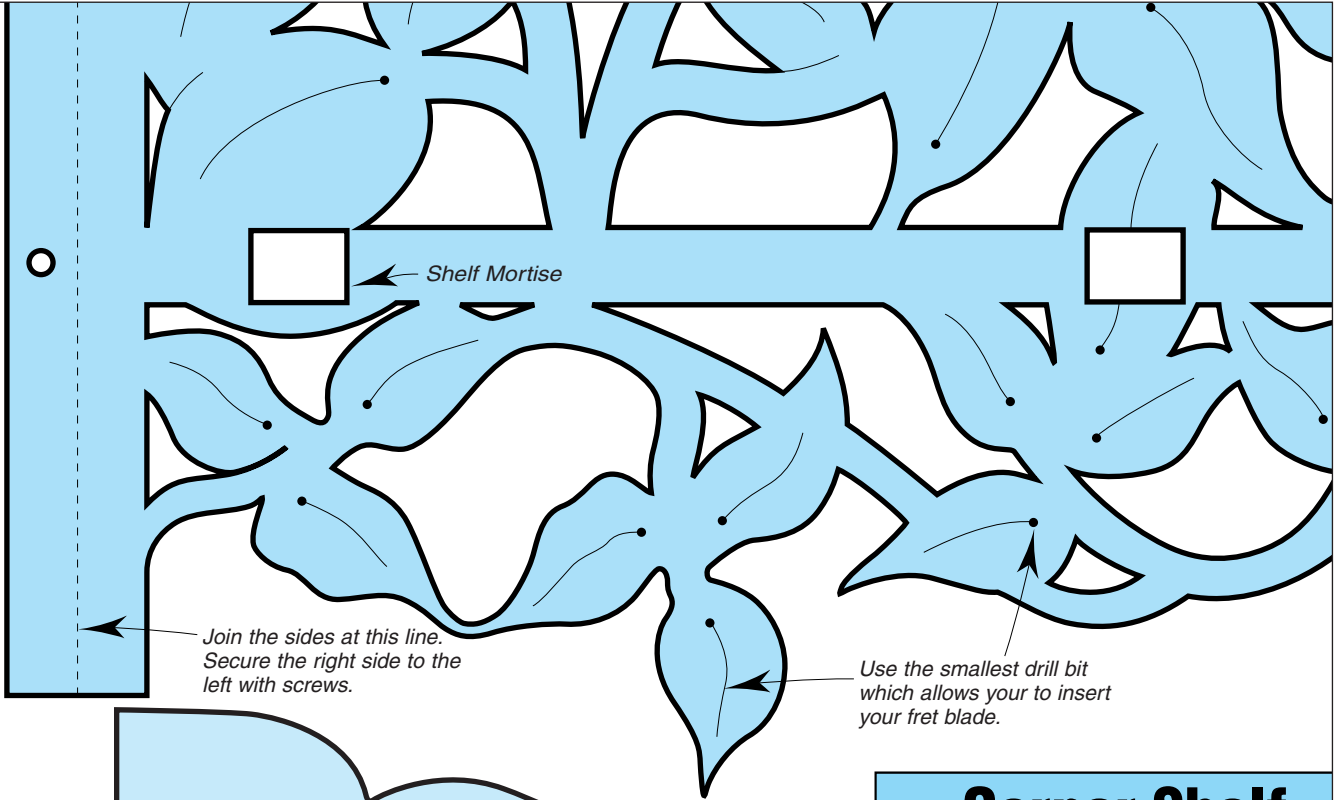
**Pattern  
Section B**

Align with Section A Here

Align with Section D Here



Align with Section A Here



## Corner Shelf

Pattern  
Section C

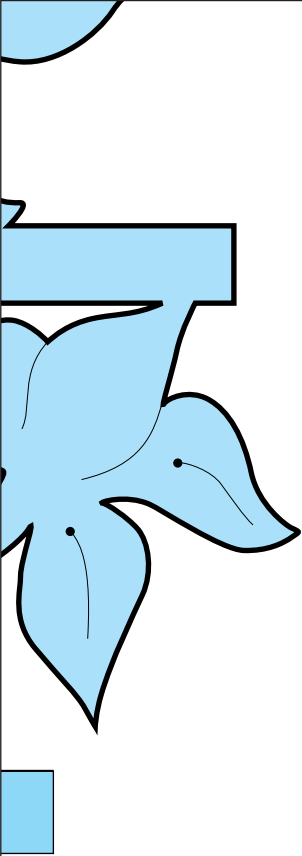
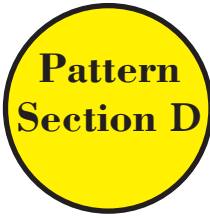
3

Top Shelf

Shelf Tenon

Align with Section D Here

Align with Section B Here



Align with Section C Here