

Figure 15-10. With a little practice the scroll saw can make 180° turns in little more than the width of the blade.

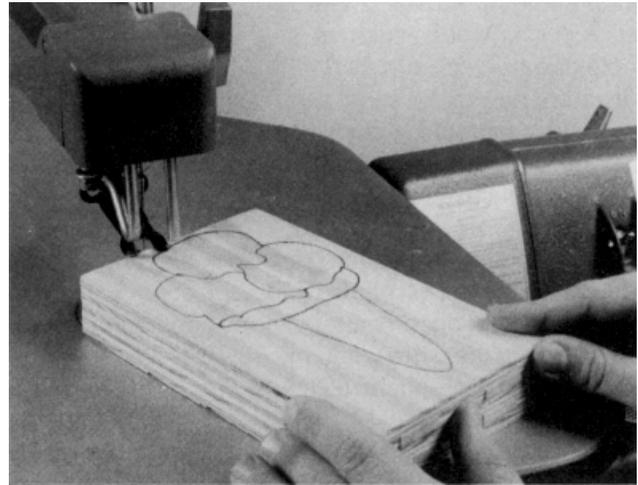


Figure 15-11. Several layers of material can be stacked, fastened together temporarily and cut all at one time for duplicate parts.

blade out through the kerf and approaching the cut from another angle (Figure 15-9A). An alternative is to cut into the corner from one angle, back up slightly and cut across the corner, then come back to clean out the small remaining piece of scrap (Figure 15-9B).

Many scroll saw projects do not require perfectly square corners and a tight radius turn will be all that's required. Unlike a bandsaw or jigsaw, the scroll saw lets you turn almost on-the-spot by spinning the workpiece around the blade. Just hold the stock against the table and spin it smoothly and quickly, being careful not to press sideways and deflect the blade.

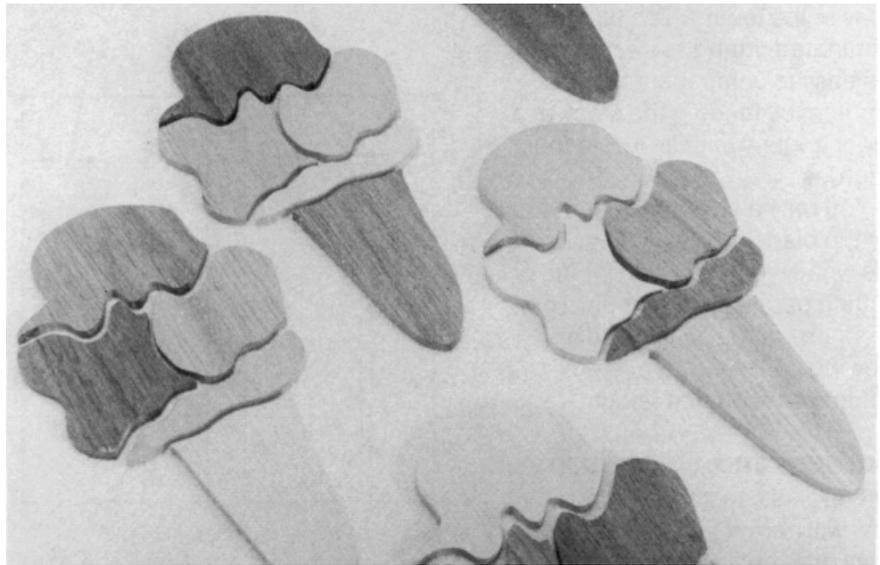


Figure 15-12. Mix woods of different colors and textures to create unique effects.

This spinning technique is easy to learn. Practice making these on-the-spot turns with a scrap piece of 1/4" thick stock until you can make a cut, turn 180° and come back out the original kerf (Figure 15-10).

Planning Complex Cuts

Always take a minute to plan your cuts-especially in delicate or intricately detailed scrollwork. Whenever possible, break complex designs up into several simple curves or shapes and don't hesitate to back up along the kerf or leave the pattern line and cut into the waste area to get a better angle for the next section.

In some cases—such as cutting inlays or matching parts—there will be no waste stock, so the entire shape must be cut in a single pass. In these cases, you may want to simplify the design to make cutting easier or you can practice cutting the shape in scrap stock to locate trouble spots and develop confidence.

PAD SAWING

Pad sawing—or cutting several layers of material at once—is a great way to save time when you need duplicate pieces for a project (Figure 15-11).

You can also create special effects by stacking different types of woods and then mixing colors and textures during final assembly (Figure 15-12).

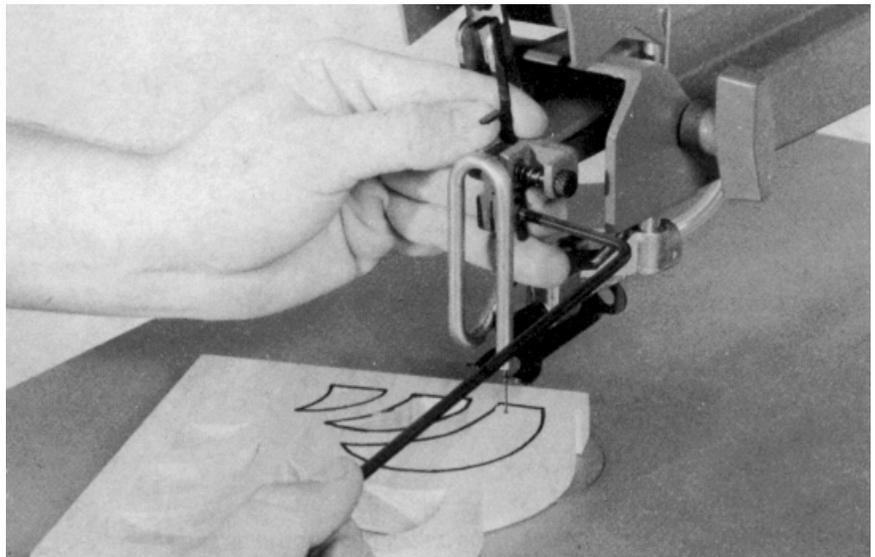


Figure 15-13. For piercing cuts, drill a starting hole close to a corner and thread the blade through it.

For pad sawing, transfer your pattern to the top piece and then stack as many layers as you need—up to 2" thick. You can hold the layers together temporarily with nails or brads in the scrap area, by taping around the outside of the stack, or with double-faced tape between each layer.

It's also a good idea to be sure the table and blade are square before starting the cut. Even a slight angle will result in finished pieces of different sizes.

PIERCING CUTS

One of the most useful features of the scroll saw is its ability to make cutouts in the center of a workpiece. These piercing cuts are made by unclamping one end of the blade, threading it through a starting hole and then reinstalling the blade before making the cut (Figure 15-13).

The starting hole should be located close to the layout line—preferably close to an inside corner to reduce wasted effort cutting across the scrap. The starting hole should also be 3/4" in diameter whenever possible. This saves time because the mounting block and blade can pass through the hole.

On more delicate work the starting hole can be only slightly larger than the width of the blade, but the blade must be removed from the upper blade

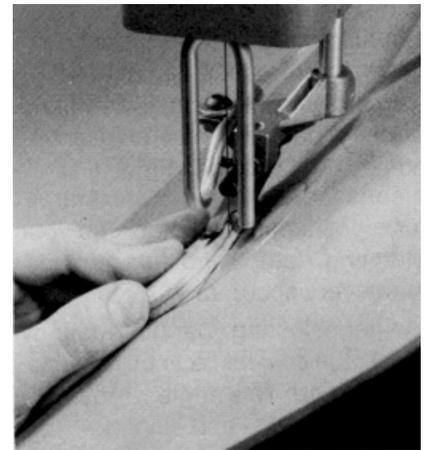


Figure 15-14. When chamfering irregular shapes, (A) draw a gauging line around the workpiece and then (B) saw to the line with the table tilted.

mounting block, threaded through the hole and then reinstalled. When removing and remounting the blade use the blade clamp shim to prevent the mounting block from turning and be careful not to bend the blade. Be sure the blade is properly seated in the mounting block and readjust the blade tension before cutting.

BEVELS AND CHAMFERS

The scroll saw table tilts either right or left and locks at any angle from "0" to 45°. This allows you to add decorative bevels or chamfers to workpieces and also makes it possible to cut inlay or relief pieces which will fit into the background with no visible saw kerf. These inlay techniques are described later.

In general scrollwork, almost any shape can be cut with a beveled edge; however, the complexity of the shape and angle and direction of the bevel will limit how smoothly and accurately the cut can be made. For example, out-side curves, such as a circle, can be cut very easily even with a 45° bevel, but tight inside curves become more and more difficult as the radius gets smaller and the angle of bevel increases.

It is also important to keep the workpiece on one side of the blade if the bevel is to point in the same direction-either in or out-all the way around the piece. This can limit the complexity of your designs because tight curves and corners may have to be cut in a single pass instead of backing up and approaching them from the opposite direction. Advance planning and your own skills are especially important when cutting pieces where the bevel will be visible on the finished project.

The best way to master bevel cutting is to practice with scrap stock before beginning on a project. Depending on whether you are right or left handed, you'll probably find it more comfortable to tilt the table one way or the other and turn the workpiece either clockwise or counterclockwise. The table tilt and direction of rotation will also determine which way the bevel faces.

Chamfers are similar to bevels except that only a portion of the edge is cut at an angle, so a second pass must be made after the piece is cut to shape.

A common chamfer angle of 45° results in the same amount of stock being cut from the face and the edge of the piece. Other angles will change this relationship. Depending on the angle of cut, the chamfer line can be marked on either the face or the edge of the workpiece to serve as a cutting guide (Figure 15-14).

As with beveling, accurate chamfering is difficult-especially on tight inside turns, so after the chamfer is cut, go back over the edges with sandpaper or a file to remove rough spots or other imperfections.

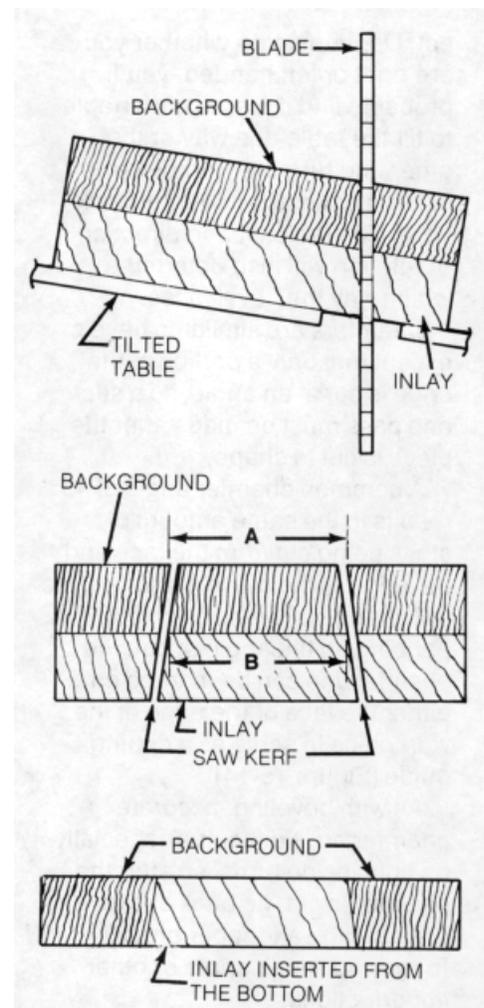


Figure 15-15. When sawing inlays, experiment with the table tilt until distances "A" and "B" are equal. The inlay will then fit snugly into the background.