

## SOLID WOOD INLAYS

Flush inlays of complimentary or contrasting woods can be used to accent your most sophisticated projects. They can be made with no visible gap or saw kerf thanks to the scroll saw's piercing and bevel cutting capabilities. But professional looking inlays require patience and practice because a very slight bevel angle is used and both the background and insert pieces are cut at one time. This means there will be no waste area for repositioning the stock, so your planning, setups and cuts must be made very accurately.

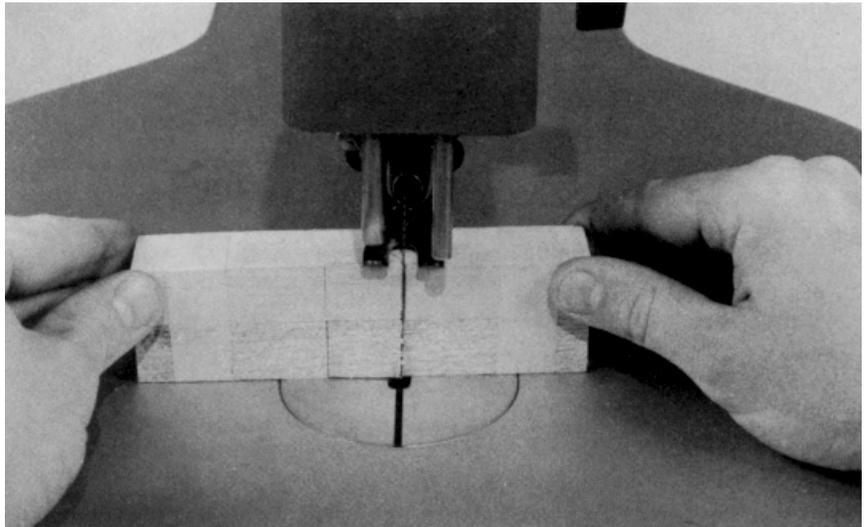
After selecting your pattern and stock, the correct table tilt must be determined. This angle will usually be between one and eight degrees, depending on the thickness of the stock and the width of the saw kerf. It is easiest to find this angle by trial and error (Figure 15-15).

You should also consider which way the table will tilt and which direction the stock will be rotated during the cut. Either direction will work as long as you plan it that way. For example, tilting the table to the right and rotating the stock clockwise will make the lower piece fit into the upper one. Tilting to the left or cutting counterclockwise will make the upper piece fit into the lower one.

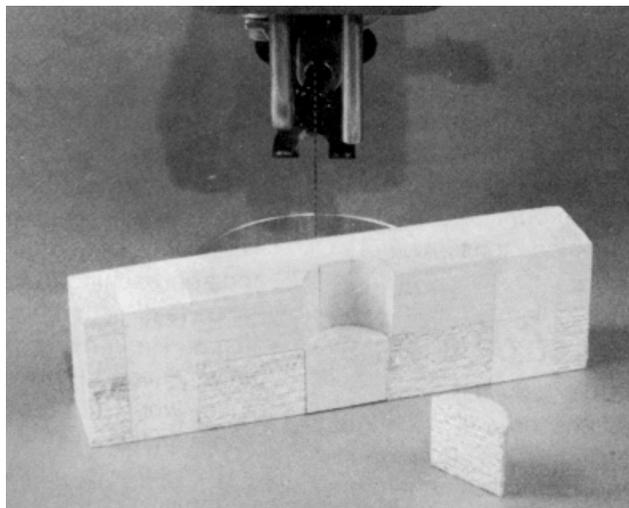
When your setup is ready for a test, tape scrap pieces of the background and inlay stock together and cut out a trial piece at the edge of the stock (Figure 15-16). Be sure to rotate the test piece in the same direction you will be using for your final cuts. Then try fitting the inlay test piece into the background (Figure 15-17). When the correct angle and direction of rotation is used, the inlay piece will fit snugly into the background with only enough room to allow for glue. If the test piece is too small or too big, adjust the table tilt slightly and try again until the pieces fit correctly.

You may also want to increase the blade tension somewhat for cutting inlays because bulges or bowed cuts can ruin your project. This increased tension will cause blades to break more frequently, but with a little practice, you'll find a good compromise.

When everything is ready, fasten the inlay and background pieces



**Figure 15-16.** Tape scrap pieces of the background and inlay stock together. Make trial cuts until pieces fit correctly.



**Figure 15-17.** Fit the inlay pieces into the background.

together as you would for pad sawing and drill a hole to insert the blade. This hole must be drilled at the same angle as the table tilt, so cut a piece of scrap or use your test piece as a drilling guide (Figure 15-18). Since this hole must be filled when the project is complete, make it as small as possible for the blade you're using and drill close to an inside corner or other inconspicuous location.

Finally, if you're making duplicates or cutting several designs with the same stock and blade, go ahead and finish them all while the setup is correct. Any change in blade width or stock thickness will require a new setup.

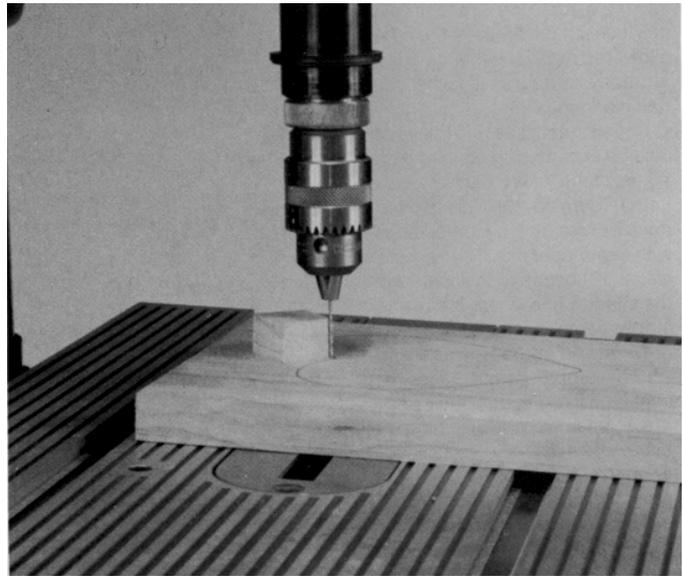
### RAISED OR RECESSED INSERTS

Raised reliefs or recessed designs are cut very much like inlays, but two different pieces of stock are not usually required. The desired shape can often be cut on a bevel from a single piece of stock and then raised above or lowered into the background to produce a three dimensional effect (Figure 15-19). Contrasting stains or other techniques can then be used to highlight important areas or create special effects.

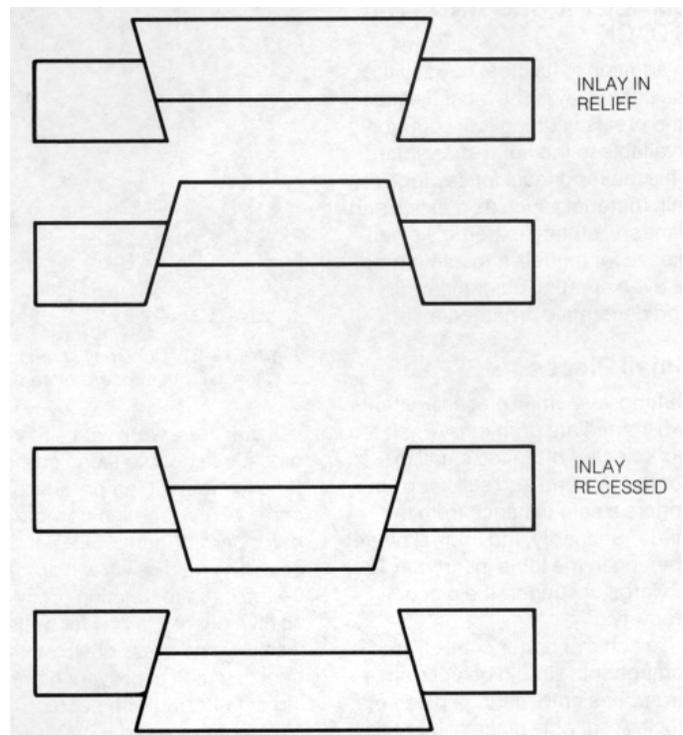
Table tilt and blade angle are less critical than they are for inlays. Any angle will work as long as it is wide enough to cover the saw kerf. The greater the table angle, the less relief or recessing you will achieve. With a little experimentation you can create striking designs with multiple levels above and below the basic background.

Also think carefully about the direction of rotation of the workpiece into the blade. One direction will produce a raised relief-the other a lowered recess. Either can be attractive as long as it's what you had planned.

Reliefs, recesses and inlays can also be accented by sculpting the edges of the insert, background or both (Figure 15-20). This is often done by rounding over the edges with sandpaper or a file to create a visual distinction or to accentuate the shadow line where the two pieces come together.



**Figure 15-18.** Use your test piece as a guide for drilling a hole for the blade at the proper angle.



**Figure 15-19.** Reliefs and recessed inlays may be cut to install from either the front or back.

When you're ready to assemble your relief or recessed pieces, hot melt glue fillets on the back side are an effective way of joining the pieces. These fillets are strong enough to hold most decorative projects and yet they won't run onto the edges or face of the project like most woodworking glues, so you save cleanup time and frustration.

### **SMALL PIECES AND THIN STOCK**

In addition to its other capabilities, the scroll saw is the most delicate and precise cutting tool commonly available to the home craftsman. This makes it ideal for sawing very thin materials such as plastics and veneers, cutting extremely small pieces for models and miniatures, or even creating custom jewelry and decorative ornaments.

#### **Small Pieces**

Cutting very small pieces presents two immediate problems. First, the workpiece is often too small to control by hand and still keep your fingers a safe distance from the blade. Secondly, the normal blade opening in the table insert may be too large to support the piece properly.

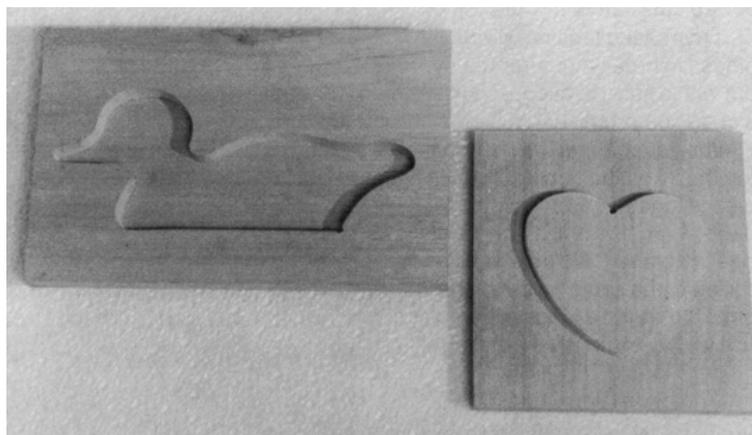
To achieve better control, small components should be cut from a larger, easier to manage piece of stock. A suitable piece of scrap is often available and the waste is insignificant.

If you must work with a tiny piece, use double-sided carpet tape to mount it temporarily on a scrap of plywood, posterboard or cardboard (Figure 15-21). In this case, the hold-down will probably be too large to function properly, so lift it out of the way for better visibility and press down on the backup stock to prevent it from lift-ing or fluttering with each up-stroke of the blade.

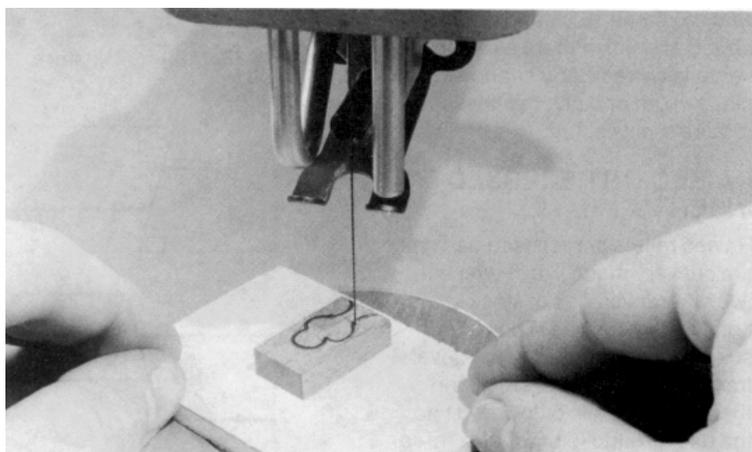
Additional support for cutting very tiny pieces can be achieved by making either a special table insert or complete table covering from hardboard. This covering may be attached to the scroll saw table with double faced tape.

To make a table covering, layout and drill a small hole for the blade in the center of the insert (Figure 15-22). Refer to the Scroll Saw Owners Manual if the blade is not centered in the insert.

Check the blade tension and speed setting before beginning your cut. A blade with too little tension will be difficult to control, especially for fine detail. Many people also find that slower speeds are less distracting for close work.



**Figure 15-20.** Bevel cutting can produce recessed or raised relief projects like this. One or both edges may be rounded over the accentuate certain designs or produce special effects.



**Figure 15-21.** Cut small components from larger stock or tape the stock to a scrap of plywood, posterboard or cardboard for safety and better control.