

Getting Started in Marquetry

Introduction

Marquetry is the art of using colorful, thin wood veneers to make pictures. The technique isn't new; it was used by the ancient Egyptians. However, we must admit the Egyptians used thicker veneers than we do today. In fact the improvements in equipment and material that have taken place in the 20th Century are what make marquetry a popular hobby today. It's fun, it's inexpensive, and with just a little practice, exceptional pictures and designs can be created. A bonus lies in being able to work with a wide variety of exotic woods at a reasonable cost.

The following articles outline the basic equipment needed to get started in marquetry and take you step-by-step through two of the most used techniques; knife cutting and fretsaw cutting. Each is simple enough to put success quickly within your grasp. The knife cutting technique is something you will be applying no matter how far you go in marquetry. The double-cutting, fretsaw technique shown here is for the beginner. As you do more advanced work you will want to move into bevel double-cutting. The bevel method, even though it is a little more complicated to master, eliminates the saw kerf and makes for a tighter fitting picture. You should consider using the bevel cutting method for your second picture. Whatever method you use the main idea is to have fun.

Information on more advanced techniques can be found in our newsletter "The American Marquetarian" and in the books listed in the Sources of Supply section of this packet. Another excellent source of information is from each other. If you live in an area with a marquetry club we encourage you to join. If there is not a club nearby consider starting one. In the spring of each year we will publish a membership listing. Don't hesitate to call other members and discuss marquetry.

Knife Cutting

How to Make Your First Marquetry Picture

by Pete Rose

Many people believe making a marquetry picture requires talent or patience beyond their capacity. However, by using the techniques described in the following instructions, whatever your level of skill, you can make a start in this fascinating art of creating beautiful pictures in wood.

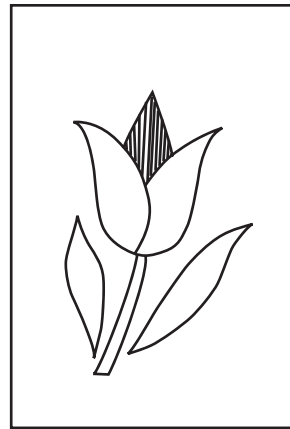
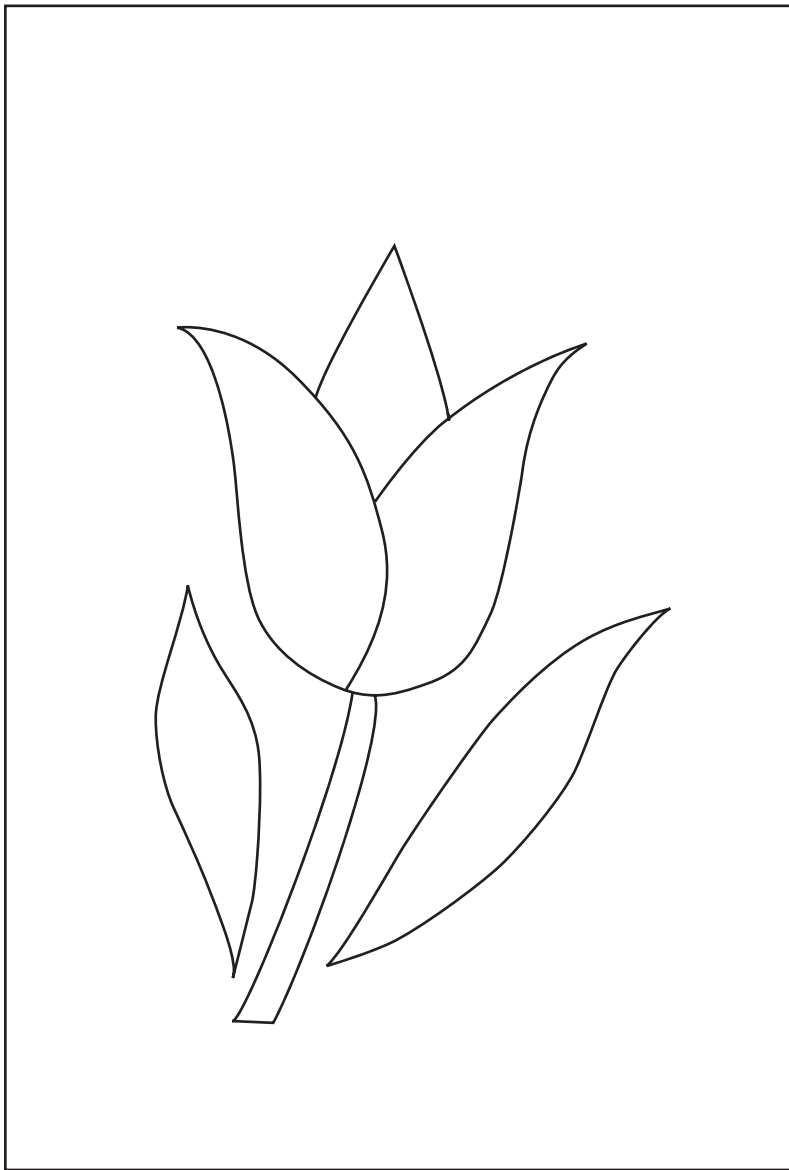
The Window Method

This is a knife cutting technique which has been used for hand cutting of marquetry pictures for years. By this technique, the craft has been raised to great heights of artistry and skill. The name derives from the simple process of cutting a hole, or window, in a veneer. It serves as a see-through viewer and as a

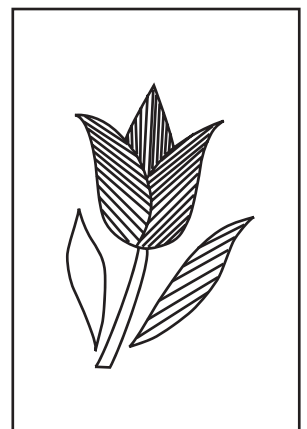
stencil for making the cutting outline on the final veneer placed temporarily beneath the window.

We will use the pattern of the "Tulip" to make our first picture. The same method is used to make any marquetry picture, no matter what the size or detail, when the knife cutting method is used.

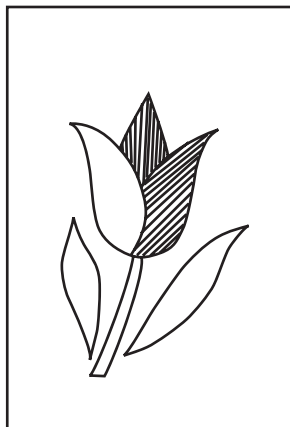
Whether you purchase a kit of materials for a picture or elect to create your own design, you need the same assortment of basic tools and materials, Xacto knife and #11 blades, fine flat sharpening stone, clear or masking tape, scribe or sharp pencil, pattern, black carbon paper, veneers and mounting panel.



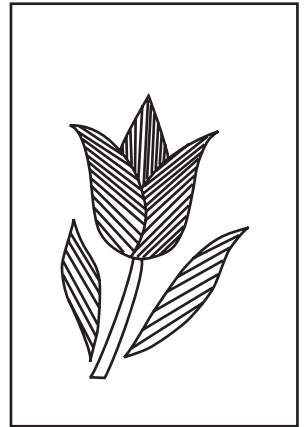
"1st Cut"



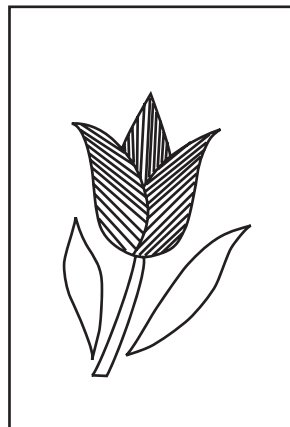
"4nd Cut"



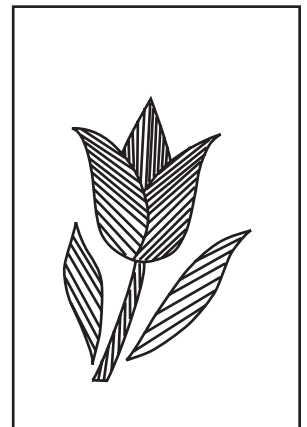
"2nd Cut"



"5th Cut"



"3rd Cut"



"6th Cut"

Tools Needed:

Craft knife w/#11 Blades	Veneer
Sharpening stone	Clear or masking tape
Carbon paper	Mounting pannel
Scriber or sharp pencil	Glue

A super-sharp knife is the primary essential for cutting veneer. Obtain a quality sharpening stone and use it frequently throughout every cutting session. Apply a few drops of light household oil to the stone. Hold the knife handle and place your index finger against the side of the blade. Keep the blade at a slight angle. Press it against the stone while moving it back and forth several times. Repeat on each side several times

(three is usually good) until the blade is sharp. When finished cutting for the day, wipe the stone clean and store in a container.

Start by transferring the pattern of the "Tulip" on to a light colored veneer using carbon paper. Cut on the lines around the shade portion as shown in 1st cut. Notice how the line goes beyond the limits of the first

piece. Do not use heavy pressure in cutting veneers with a knife. Make several light passes with the knife over the same line until the veneer is cut through. Heavy pressure on the knife may split the veneer. Move the knife slowly, steadily in the groove. Hold the craft knife as you hold a pencil. Keep the fingers of your other hand close to the knife, but never in its forward path. Do not cut from the center of a piece of veneer to the outside edge. Make all cuts from the outside toward the central mass. Cutting outward toward a tip will split it off.

A good surface for cutting on can be a piece of vinyl tile, linoleum or pressed board. Too hard a surface will break the tip of the knife blade.

When you have cut completely through lift the cut piece out and discard it. Now select a piece of cherry veneer and place it beneath the open window. Move it around so the grain is in a vertical direction.

When you are pleased with the direction of the grain use a few pieces of tape to hold the two veneers together. Now using the opening in the veneer as a guide scribe a line all around the edge with your knife. Remove the tape and continue to cut on the scribed lines in the cherry veneer. With the veneer piece completely cut, place it in the background veneer and hold with a piece of tape on the back side. Continue in this manner until all pieces are cut. The petals for cut 2 and cut 3 are made with padauk veneer (red-dish color), the leaves are green. The last piece is the stem, a piece of dark veneer (walnut) can be used for this. Sometimes certain veneers or thin pieces splinter apart. To prevent this place strips of tape edge to edge on the back of the veneer section to be cut.

Filling

Now is the time to fill any open joints. Using a razor blade scrape back and forth on a piece of padauk veneer, then mix these scrapings with a few drops of white glue until you have a paste. Press this paste into the open cracks of the padauk veneer with a putty knife or similar tool. Use green for leaves and dark for the stem. Cover the entire assembly with a piece of waxed paper or plastic and a flat board until dry

Gluing

There are several types of glue used for veneering. The most widely used are white or yellow (aliphatic resin) and contact glue. White or yellow glue should be spread on the mounting board only, then press the back-side veneer onto one side of the mounting board and the veneer picture assembly on the other side. Cover both sides with wax paper and sandwich between two flat boards equal or slightly larger than the mounting board. Work quickly before the glue saturates the veneer otherwise they will expand and when dry leave open joints in the picture. Two or three "C" clamps will be required to apply pressure on this assembly. Allow this to dry overnight.

Bonding with contact glue is another method. Any brand of contact glue can be used, the non-flammable is preferred (never use water base contact glue for wood veneers). Two coats applied to each surface with about 30 minutes drying time between are required, follow directions on the can. Do not trim veneer or picture assembly until after they are bonded. Do one side of mounting board at a time. When glue is dry place veneer and mounting board together and press with small roller or wooden block. Be careful when aligning the two pieces because once contact is made they can not be separated. Turn veneer which is bonded to the mounting board face down on a flat surface and then trim off the excess veneer using you Xacto knife. The edges of the mounting board may be veneered or you may prefer to paint them for your first picture.

Finishing

Apply a coat of clear shellac or a coat of polyurethane varnish mixed with a little turpentine or mineral spirits to seal the veneers. This must be done before sandpapering otherwise the darker or dyed veneer sanding dust will impregnate the lighter veneers. When sealer is dry sand paper smooth with medium grit paper, follow by a fine grit. Apply several coats of polyurethane varnish (satin or gloss) with light sanding between coats. This may then be rubbed with 4/0 steel wool followed by a coat of wax.

Good luck

Fretsaw Technique

A Simple Fretsaw Project

by Dave Peck

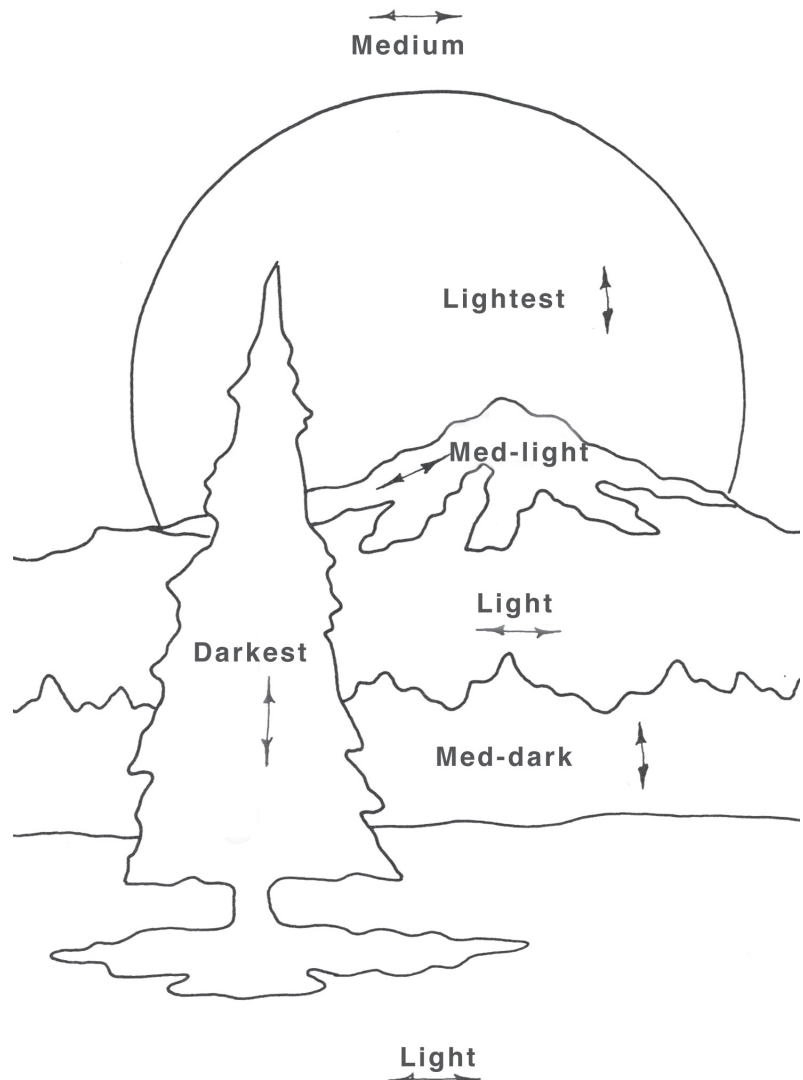
Tools and Materials

From Catalog or Specialty Store:

- Veneers in an assortment of shades. When ordering veneers, there is usually a minimum of 3 sq. ft. per species. Some outlets offer assorted packages.
- 12" Fretsaw
- One dozen #5/0 Jewelers Blades. The saw will come with #2/0 blades but I recommend you try the 5/0 first. If you break too many then go to the 2/0. Expect to break a few.
- Veneer Saw (Optional)

From around the house or from local store:

- Craft Knife (Exacto #1 w/ #11 blades)
- Nonflammable Contact Glue
- A wood or hard rubber roller (wallpaper roller)
- Transparent or masking tape
- Pencil
- Tracing paper
- Carbon paper
- A push pin or veneer pin
- White glue and fine sanding dust
- Waxed paper
- Hardwood plywood the size of the final picture



These labels are for the drawing. Wood
veneer labels are for the final picture.

Introduction

Until recently equipment requirements limited the practice of marquetry to people with access to a complete workshop. Now thinner veneers, better adhesives and improved equipment put marquetry in the reach of everyone. It's a fun, inexpensive hobby from which, with just a little practice, exceptional pictures and designs can be created. A bonus lies in working with a wide variety of exotic woods at reasonable prices. This article outlines the basic equipment needed to get started in marquetry and takes you step-by step through making a simple picture.

For about \$60.00 you can get started. You will need the items listed in Tools and Materials box for making this picture with a fretsaw. (Sources of supply are listed elsewhere in this packet.) The "Moonrise" pattern is a good one to start with. It is simple enough to easily cut while at the same time includes techniques that you will be using on more complex pictures. The method is called double-cut, wherein two pieces of veneer are stacked on top of each other and cut with a single sawcut. A perfect fit is guaranteed because both pieces are cut at once with the same saw cut.

Installing the Blade



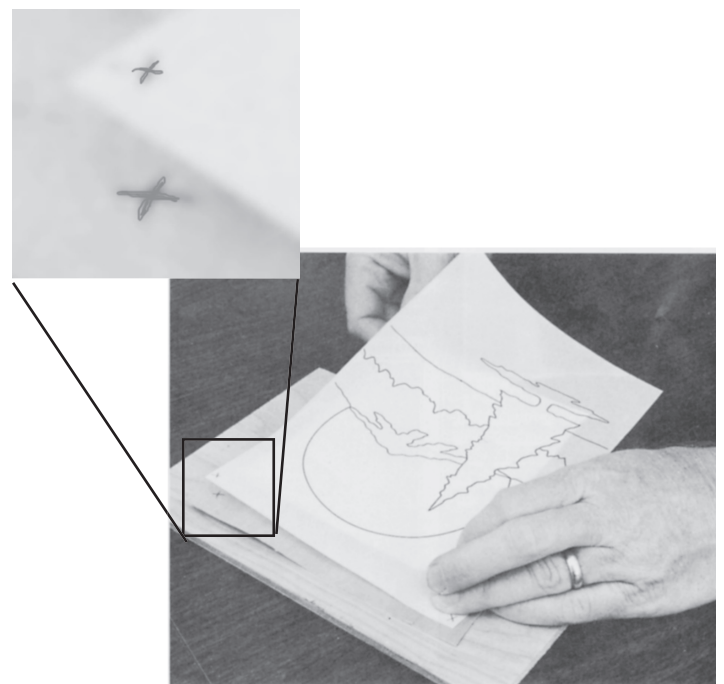
Before we can cut we need to install the blade. This can be an interesting project the first time you give it a try. The tiny teeth of a 5/0 blade are hard to see. Check the direction of the teeth by pulling them along the pad of your fingertip. They go in the saw pointing downward (toward the handle). Attach the blade in the lower clamp. Put the gooseneck of the saw under your arm so you have both hands free. Now squeeze the

body of the saw together and slide the free end of the blade into the upper clamp. Tighten the wing nut. You should hear a twang as you flip the blade with your fingernail, but don't overtighten.

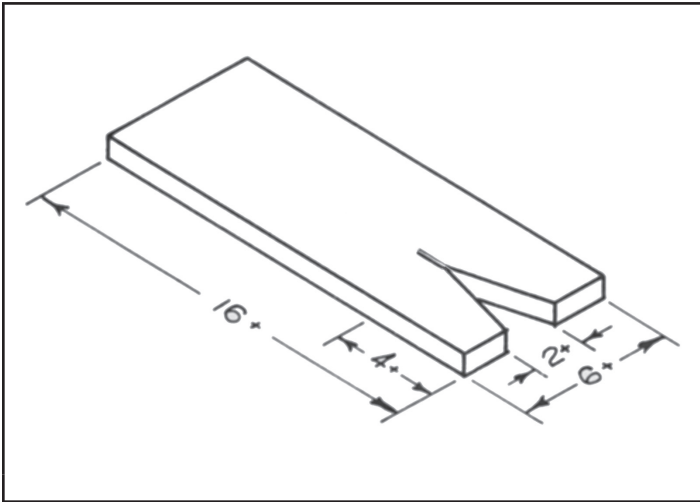
Beginning the Picture

First trace the pattern onto tracing paper. You can adjust the size if you wish, but 4" x 6" is a good size to start with. Place the traced pattern over the veneer you will use for the sky. Make sure the grain direction corresponds with the arrows on the pattern. With the craft knife cut out a piece so that it is 1/4" larger on all sides than the finished piece in the pattern. (The plywood foundation you will eventually glue the veneer to makes a good cutting board.) Make all cuts toward the center of the veneer. If you cut toward an edge, especially across the grain, a splinter may pull off rather than make a clean cut. Several light cuts work better than one or two heavy ones.

Put x marks in the top corners of the sky piece you have just cut. Place the pattern over this piece and trace the x's onto the pattern. These X's, called registration marks, will make it possible to put the pattern back in position each time an additional part of the picture is added. Next rough-cut a piece of your lightest color veneer just larger than the moon in your pattern. Slide the piece of veneer under the pattern and line it up with its position. Remove the pattern and temporarily tape the new piece to the sky. Two or three pieces of tape should do the job. Now lay the carbon paper over the moon leaving room to see the registration marks. Line up the pattern with the X's and trace the moon.



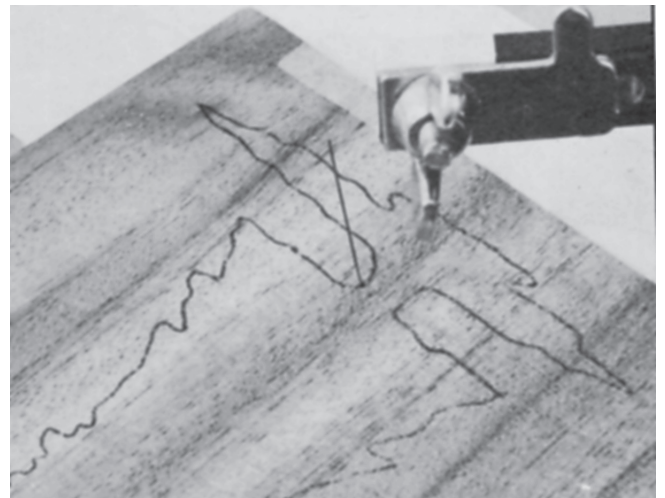
Sawing



Make the hole

Bird's mouth sawing table. Size isn't critical. Round off all corners. Saw at the apex of the slot so that the veneer is supported by the single saw kerf.

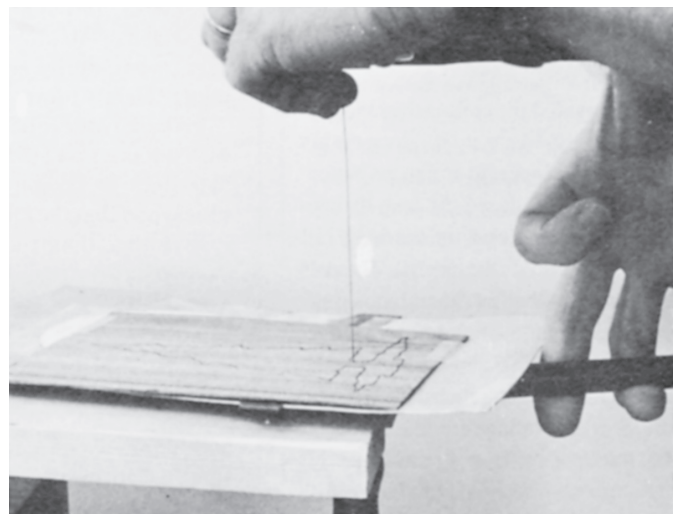
Clamp the bird's mouth (notched sawing board) to the table so that the apex of the slot is one inch from the table. Move the assembled pieces onto the bird's mouth and you are ready to saw. Short strokes (about 3/4") without a lot of forward pressure work best. I get into a rhythm of three strokes per second. For sharp corners, slow down a bit and take shorter strokes – but keep the saw moving! Otherwise the blade may bind and break. Try to keep the saw blade as deep in the slot as possible without cutting too much into the bird's mouth. Practice helps. It's also a good idea to keep the floor under the table clean so that if any small cross-grain pieces break off, you'll be able to find them and tape them back in place. Once you have the moon cut, tape it in its proper location with the tape on the face of the picture.



Thread the sawblade through the hole

Follow the same procedure for the two parts of the mountain, the row of trees and the white foreground. (We're saving the tree till last to demonstrate how to insert a piece into the middle of a picture or into the middle of another piece.)

When the rest of the picture is complete put the veneer for the tree in position, tape it down and trace the outline. The tree, with its shadow, is now an island in the middle of the picture. Don't make a saw cut from the edge. Instead, use a push pen to make a small hole at an interior corner of the traced line. Remove one end



Reclamp the blade

of the saw blade from the saw frame, thread the blade through the hole, and clamp it back in the frame. It helps to rest the saw frame and the unfinished picture on the bird's mouth while reattaching the saw blade. Cut out the tree, unclamp and remove the blade, tape the tree in position, and you have completed the sawing.

Fill the gaps

The joints between the pieces will have small gaps about the size of the saw blade. Later when you are doing "bevel" double-cut work this won't be a problem but for now we need to fill these gaps. If we don't and we use contact to glue down the picture some of the finish may seep through these cracks and react unfavorably with the contact cement. To prevent this, make a mixture of fine sanding dust and white glue. I like to make the mixture thick enough so that a peak comes up when I remove the stirring stick but it flattens out within a few seconds. Spread this mixture over the back of the picture with a putty knife, forcing it into the cracks, and scrape off any excess. Cover the glued surface with waxed paper and weight it down under a flat board so that it stays flat while the glue dries. The next day, sand the back of the picture with course sandpaper till its flat. If you don't, any lumps will show through on the finished picture.

Gluing up

Follow the directions on the contact cement can to glue the picture to the plywood foundation. I use two coats of glue on both the plywood and the back of the picture. Let the first coat dry completely (for at least 30 minutes but overnight is good) before applying the second coat. When the second coat is dry to the touch place a piece of brown paper between the two parts and align them carefully. Slowly remove the paper and press down lightly so that the glue contacts. Use the roller to firm up the contact. After a good firm contact has been made turn the assembly over (face down) and trim the excess veneer with a craft knife or veneer saw. Now repeat this procedure for the back. The back must also be veneered to keep the plywood in balance. Otherwise it will warp because of unequal stresses. Whether you need to veneer the edges will depend on how you are going to display the picture. If you are going to put it in a frame you are done at this

point. If you are not putting it in a frame it's best to veneer the edges to hide the plywood.

Finishing

Remove the tape from the front of the picture and it's ready for the finishing process. I like to use a wash coat (thinned 1 to 1 with alcohol) of shellac before I start sanding. This seals the pores and keeps sanding dust from lodging in them. Sand first with medium and then fine and extra fine sandpaper. Once you are satisfied that the surface is level and you have removed the sanding marks once again apply another wash coat of shellac. Shellac is one of the best sealers and this step insures that any oily woods will not cause problems with the final finish. Use whatever finish you are comfortable with. They will all work over shellac.