Introduction

These instructions describe making the simple leaf design included using the "Window" method. If you start with a suitably-sized piece of veneer you should be able to make the finished design into a nice coaster.

Getting Started

Choose a piece of light coloured veneer to be your background, ensuring it is big enough if you are making a coaster. Attach the drawing to the top edge with a piece of tape like a hinge. This allows the drawing to be moved out of the way while cutting takes place, but to be swung back over the veneer in perfect register when required for tracing the next part. This is important as in a large picture there may be several hundred shapes to be traced.

Tracing the Design

If the chosen veneer is not smooth, lightly sand its surface with a piece of fine garnet paper. Then trace through the design carefully using carbon paper and a sharp pencil. Don't press too hard, just enough to transfer the design clearly.

Cutting the Window

We'll begin by cutting out the top half of the leaf (piece A).

Start by making a small cut on the leaf outer edge, by the twig. This cut is really just a stab, with the blade held almost vertically, and cutting edge pointing down the leaf towards its outer point. Be sure to position the work to suit your cutting style. Having made this cut, turn the work round so that the leaf is pointing away from you. Gradually extend the cut along the leaf edge by moving about 5 mm along the edge and then cutting back towards the existing cut. Take care to keep the knife blade vertical all the time so that the cut edge is square and not like a “plug in a plug-hole”. The “step” cutting means there is little chance for the knife to slip over such a short distance and it will follow the existing cut even if it does not go right through at this time. Do not try to cut right through the veneer in one go, but work smoothly and gently so that you keep in full control. Continue to the outer point of the leaf.

Avoiding Glue-Lines

When we come to the "vein" side of the top half of the leaf we really do not want to cut exactly to the line. If we do, we will have glue just where we want to cut when inserting the second half of the leaf. Therefore cut below the line, in the area of the bottom half of the leaf - as shown by the dotted line. The excess will be cut away when we make the window for the second part of the leaf, so the cuts at this side can be simple straight lines.
Making the Window

Once you have cut right round the top half of the leaf the piece should drop out. It probably won't though, because it will be held by fibres that have not been completely cut. Do not force out the piece but carefully ease it up to see where it is catching and cut though again until the piece comes out cleanly. The aim is to produce a neat window with vertical sides and no stray whiskers around the edge.

Cutting the Insert

Choose a piece of darker veneer with some stripy figuring that will represent the veins of the leaf. Position it behind the window and move it about until the grain is running in the right direction and you are happy with the appearance. This is the advantage of the window method - you can see exactly what you are going to get, and try several veneers without wastage.

Once you are happy with the position apply a few small pieces of masking tape at any convenient points to hold the two veneers together. If you study the grain of the veneer you will see that at the twig end of the leaf the grain runs right into the point, at the outer end however the grain runs across the point and in this area pieces will be very prone to breaking away. To avoid this, stick a piece of masking tape onto the insert veneer, covering the area that will be your leaf section. The tape will help to show your marking through, and will retain any small pieces that try to break away.

Holding the knife almost vertically and keeping it close against the edge of the window, prick the design onto the tape. Keep the side of the knife blade tight against the edge of the window when marking out the insert. Keep the blade vertical and gently "prick" through the shape. Don't try to cut right through, concentrate on marking all the line, especially around tricky curves. The line of marks should just be visible on the underside of the insert veneer. If any areas appear to have been missed, mark them again.

Once the entire outline is marked, remove the lower veneer and cut out the insert by carefully following the marks. Again, the object is to achieve a piece with clean, vertical sides.

Fitting the Insert

Marquetarians differ whether the insert should be fitted from the front or the back. We generally recommend cutting from the front - so that the picture is seen as it will finally appear - and fitting the insert from the back. This usually produces joints that are tighter at the rear surface than at the front, which means that as the picture is sanded down ready for polishing, the joints get better!

In most cases the insert piece will be more fragile than the picture, so leave the insert on the board and then position the background piece above it. Carefully manoeuvre the window so that the insert fits in from the back. Press the insert in carefully, easing it gently with the point of the knife if necessary. Place a piece of tape over the insert on the front of the work and then gently remove any tape from the back of the insert or background. Take special care where there are any short cross-grain pieces.

Once the tape is removed, apply a small blob of PVA glue to the back and work it into the joint using a firm pusher – for example the handle of a spoon or a smooth key. (A Swann-Morton scalpel handle is excellent for this job, but remember it has a very sharp blade at the other end!) The glue causes the fibres to swell slightly and forms a tight joint. Rub the glue with your finger until it is no longer wet, then
remove any excess glue by gently scraping with a blade held across the surface so that the back of the work is kept clean. Any build up of glue will be more difficult to remove once it has fully hardened, but it must be removed to be sure of getting good adhesion to the baseboard.

Allow the glue to set for a few minutes more - when working on a picture you could be cutting another window elsewhere. Then put a piece of masking tape in the back as reinforcement and remove the tape from the face taking care not to pull out any small pieces.

**Completing the Practice Piece**

Swing the drawing back and trace the leaf vein onto the first insert, then cut out the second part of the leaf - this piece must be a good fit all round as no over-cutting is possible. Notice how, having over-cut the first leaf piece, you now get a clean edge along the leaf vein. Cut in the second leaf piece as above.

The twig is also cut in exactly the same way, but this time it is the background, and not the insert, which has small cross-grain pieces that may break away. Prevent this happening by taping the front of the work before tracing the design and cutting the window and by taking great care when pricking round the detailed ends of the twig.

**Advantages**

The key advantages of the "window" method are two-fold. Firstly the insert veneer can be moved behind the window to show the exact effect, thus allowing the best use of the grain, colour and figure of the veneer. Secondly the window is used as the template, therefore the insert must fit perfectly (?) into the window.

**Finishing a Picture**

To make a coaster, the leaf only requires sticking to a piece of MDF (medium density fibreboard), sanding and polishing or varnishing. A picture, however, requires a little more work.

The back and sides of the baseboard should be veneered as well – the sides because they look better, and the back because it will balance the “pull” of the veneers on the front and help to prevent warping.
The order of application should ideally be back, then top and bottom, then sides, then face. This order minimises the number of veneer edges seen when the picture is hanging. Considerable pressure is needed to get a good bond – if you consider that a vacuum press can exert 14 pounds per square inch, a picture 12” square needs well over a ton of pressure. Good quality hand clamps with the picture held between firm boards can successfully be used for gluing the back and face for sizes up to about A4, but anything bigger really needs a proper press. Edges are always tricky, but if using PVA glue they can be held in place with tape until the glue has “gone off” and then the adhesion can be improved by smoothing on using a domestic clothes iron set to about mid-heat (somewhere around the “wool” setting). Keep rubbing the edges on with a smooth object while they cool and the glue completes its “grab”.

Once glued, the picture, edges and back should be sanded smooth using good quality abrasive paper around a hard block – don’t use your fingers as you will follow the ups-and-downs, and may erode softer veneers. Finish with a good quality oil, polish or lacquer. Polishing is a subject in itself, please consult a reference book or the internet.

**Tips**

**Order of Cutting**

In general, pictures should be cut from the background to the foreground. In this simple picture the hills would be inserted first, as one piece, before the tree. If the hills are inserted after the tree the grain on the two pieces may not line up and look distorted.

**Filling "Holes"**

When cutting pieces with hollow centres - such as the letters "O", "Q", "D", etc. always ensure that the centre matches the grain direction of the background. Thus for the letter "Q", first cut the outline, but retain the "waste" removed. Cut and insert the veneer for the letter. Cut the window for the centre of the letter, then tape the waste piece of background previously removed behind the new window and cut the insert.

For more help and information about marquetry please contact:

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