

Maple-leaf marquetry

BY SETH JANOFSKY

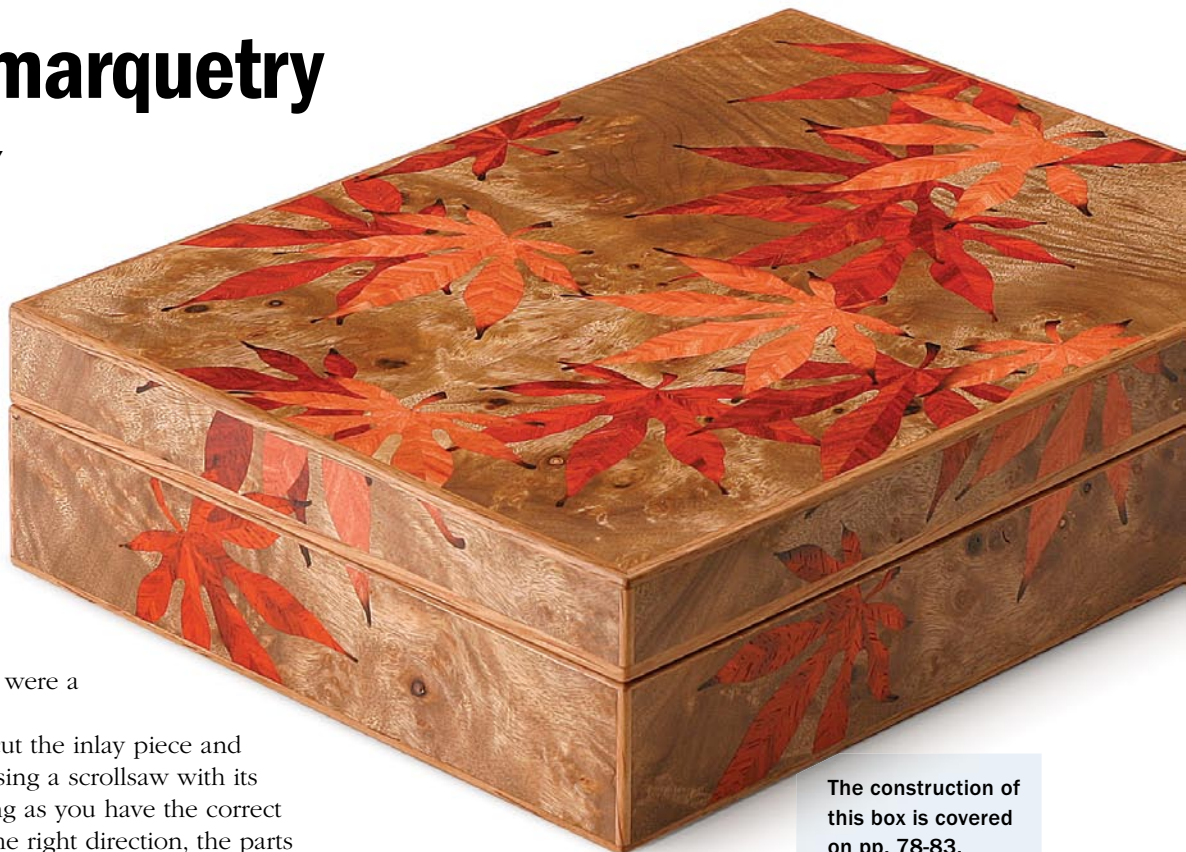
I use a variety of veneering techniques on the pieces I make. For this box, marquetry yields a pattern of overlapping Japanese maple leaves that cascade down the sides, a look inspired by Japanese prints and lacquerware.

Sometimes called double-bevel marquetry, my method involves inlaying each element into the background veneer as though it were a tapered plug in a tapered hole.

To achieve matching bevels, you cut the inlay piece and the background at the same time, using a scrollsaw with its table canted at a slight angle. As long as you have the correct table angle and move the work in the right direction, the parts will fit. Actually, the sawing does take a certain amount of head-scratching and some practice, but mainly it requires a tolerance for tedium. (I use a foot-powered, shopmade saw that cuts at a leisurely pace, but a motorized scrollsaw will work, too.)

Build blanks for leaves

The main task is preparing the veneer blanks for the leaves, which are made from a number of pieces glued together rather



The construction of this box is covered on pp. 78-83.

than a single sheet. The seams between the pieces mimic the veins in a real leaf.

First, saw a bunch of 1/16-in.-thick veneers for the leaves and for the background. I generally do this on a bandsaw. If the saw is well tuned and the blade sharp, the veneers may not need any thicknessing; otherwise, I cut them slightly thick and then sand them.

Making your own veneer

The best way to acquire veneer for a project like this marquetry box is to resaw your own from thicker stock. It's a good way to use wood that has interesting color, grain, or figure, but isn't long enough or wide enough for other uses. Begin by jointing and planing the stock square.



Bandsaw the strips. A tall auxiliary fence helps support the work. Be sure the fence is set to account for blade drift. Joint the cut face of the stock after sawing each piece of veneer.



Line up the patterns. There are several ways to match up veneer sheets. Book-matching, for example, aligns facing sheets to mirror grain patterns.

Assemble blanks for the leaves

I keep a supply of reddish and brownish woods around the shop to make veneer for the leaves. Part of the fun comes from trying out different woods. However, if you use padauk, keep in mind that the wood will become darker and duller. Also, an alcohol-based finish will cause the pigment in padauk to bleed, so avoid using shellac.

To make the blanks for the leaves, bundle consecutive cuts of straight-grained veneer and crosscut the bundle at a 45° angle, creating a bunch of trapezoidal pieces about 3/4 in. wide. The more cleanly and accurately you cut these, the better.

Take one piece, flip it over, and book-match it to another, forming a chevron pattern, and edge-glue the pair.

When the chevrons are dry, use a jig on the tablesaw to put a steeper point on the already pointed ends, keeping the point aligned with the joint in the center (see photo, far right).

Then begin gluing these assemblies together—first three, then five, then seven pieces—with the points converging at the base of what will be the leaf.

Prepare the background veneer

For the background, glue up a sheet of veneers based on the size of the box you want to make. Because some leaves will cross the joint between top and sides, attach the end and side pieces to the top. The finished assembly will resemble a flattened cardboard box.

When making the background, remember that the size of the scrollsaw's throat limits the overall size of the veneer sheet (and the box). You have to swing the entire sheet around in a complete, if convoluted, circle as you saw in each leaf.

Let the leaves fall

When the glue has dried on the leaf blanks, pencil in the shape you'll cut. Be sure the point of each lobe of the leaf aligns with the glue line in the



Leaves begin as simple shapes. Use a miter saw to cut blanks at a 45° angle from the end of a stack of veneers. Cut plenty of blanks, because you need 14 for each leaf.



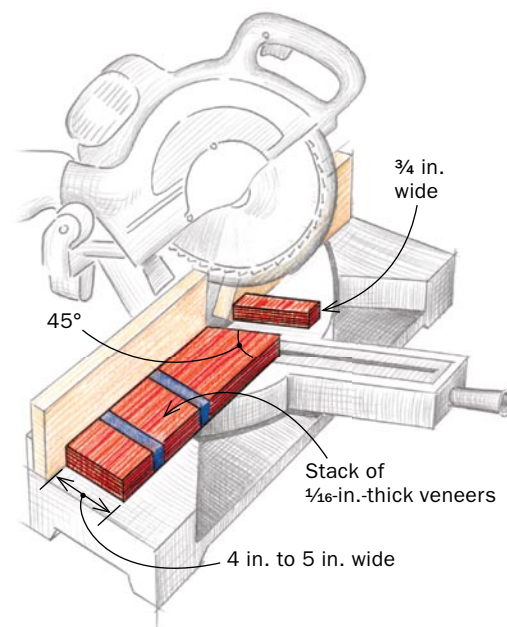
Glue up pairs. Edge-glue pairs of blanks to form a chevron or arrow-feather shape. The grain patterns will mimic veins in real leaves. Tape holds the pieces together.



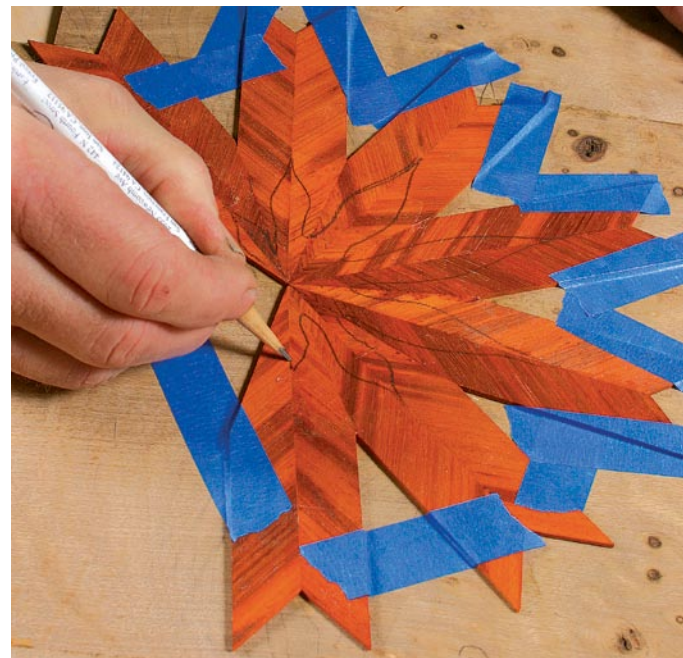
Glue groups of chevrons. Edge-glue seven chevrons to complete the leaf blank. Work carefully to be sure that all the chevron points converge at a single point.

Position a blank and draw the shape. Tape the blank on the background veneer, then outline the leaf shape. You can draw freehand or trace a pattern, but let the shapes and sizes vary.

CUT ROUGH PIECES ON A MITER SAW



Point the ends. A simple 18° jig that rides in a miter slot on the tablesaw is used to sharpen the point of each chevron. Use a fine-tooth laminate blade to keep the cuts as clean as possible.



Cut out the leaves

Drill a starter hole. Make a tiny hole in the background veneer right where the points of the chevrons converge. Thread the scrollsaw blade through this hole.



BACKGROUND VENEER: A BOX UNFOLDED

Leaves can cross from the top to one side.



Don't place leaves so that they jump a corner. It's too hard to realign the shape when assembling the box.

Veneers for box sides are edge-glued to the veneer for the top.

blank. The lobes decrease in size, with the longest in the center and the shortest at either end.

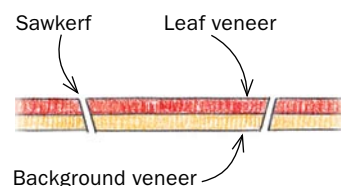
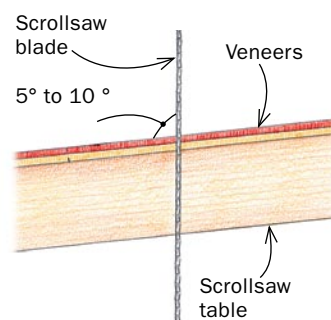
Fit the scrollsaw with a 2/0 wood-cutting blade (also called a universal #1 blade, from www.woodcraft.com, among several sources). Start by angling the saw table 5° to 10°, but get the angle dialed in exactly by practicing with scraps of veneer. The blade's kerf determines the angle. When it's just right, the inlay piece will fit tightly in the recess and come up flush with the background veneer. It's best if they're a little tight at this stage.

Tape a leaf blank onto the background veneer wherever you want it. Drill a tiny



Cut at a slight angle. A slight tilt to the saw table will leave cut edges beveled and allow the leaf to sit flush in the cutout in the background veneer. It's essential to rotate the workpiece in the correct direction; otherwise, the inlay piece will be too small.

DOUBLE-BEVEL MARQUETRY



Beveled cut allows leaf to fit snugly in cutout in background veneer.



Remove the finished leaf. Reach under the background veneer and gently push up to release the leaf shape and the corresponding piece of background veneer.



Toast the tips. Place the leaf cutout in a pan of hot sand for a few seconds to darken the tips. Too much heat will weaken the glue joints or cause the fragile tips to crumble.

Glue the leaves in place

Glue in the leaf. Be sure the inlay is glued all along the cut edge. A syringe makes it easy to work the glue into tight spaces.



Seat the leaf. A few light taps with a hammer will ensure that the leaf fits snugly in the background veneer. It's OK if the leaf is a whisker proud; sanding will bring all the surfaces flush.



starter hole for the blade and begin sawing. If you drift from the line you've drawn, don't worry. These are leaves, and it's OK if they're irregular.

When you've cut the shape completely, remove it and the corresponding piece of background veneer. Save the background; you can use it to help decide where to place the remaining leaves.

Glue the leaf into its recess in the background, tap it in place lightly but firmly with a small hammer, hold it down with a couple of pieces of blue tape, and let it dry.

I like to build up a dense pattern of leaves laid over each other. The earlier ones should dry completely before new ones are cut in over them, or all the little pieces will fall out and you'll never figure out where they go.

Stems go in last

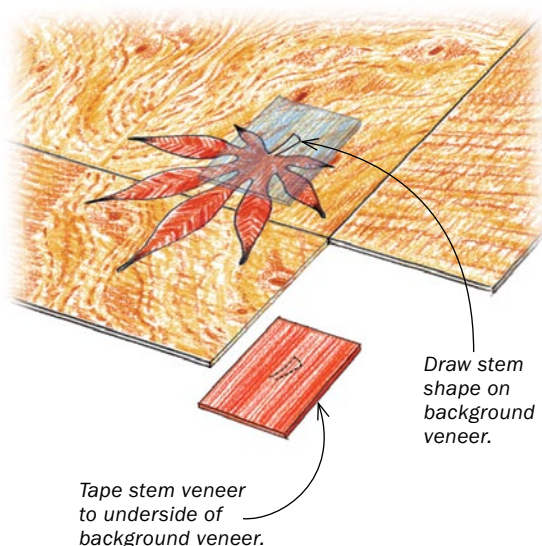
When you've finished inlaying all the leaves and you like the pattern you've created, add the little stem pieces.

These are bevel-cut like the leaves, but with one difference. To be sure you've placed this minute piece precisely at the base of a leaf, draw its shape on the background veneer and tape a larger inlay piece to the back of the background. Saw in the opposite direction (rotate the work counterclockwise if you moved clockwise when cutting the leaves), to make the inlay piece fit. Glue in the stems.

When the veneer is done, you'll have to cut the sides and ends from the top with a fine-toothed Japanese handsaw, and you're ready to glue the pieces onto the box carcass. Apply thin strips of binding to the corners and edges to help define the shape and provide some contrast. The article on pp. 78-83 explains how to cut the rabbets for this detail. □

Stems add a finishing touch

DOUBLE-BEVEL CUTS FOR STEMS



Cut stems in reverse. To get tiny stem pieces positioned exactly, trace the outline to be cut on the background veneer, tape the other veneer to the backside, then cut. Move the work opposite to the direction you followed when cutting the leaf shape.



Position the stems. A little glue and a tap from the hammer will seat the stems.