



Book-matched veneer panel

AN EASY WAY TO START ADDING VENEER TO SMALL PROJECTS

BY BOB VAN DYKE

Some of the finest furniture made features spectacular book-matched crotch or burl figured panels, exquisite marquetry designs, and sunburst patterned tabletops, none of which would be possible without the use of veneers. Becoming an expert in veneering is a lifelong endeavor, but you have to start somewhere.

In this master class, I'll introduce you to the basics by showing you how to make a beautiful book-matched panel (used in my box project on p. 62). For small panels like this, you don't need a lot of equipment, just the veneer, a veneer saw, and some cauls and clamps. A mirror is handy, too, for laying out the pattern. Once you master working with veneer on a small scale, I'm sure you'll be eager to take on bigger projects.

The design possibilities are endless, but your first foray into veneers should probably be a simple one. Using two sheets of veneer for a simple book-match is an excellent way to add veneer to any project. Almost any veneer with figure can yield



Flatten first



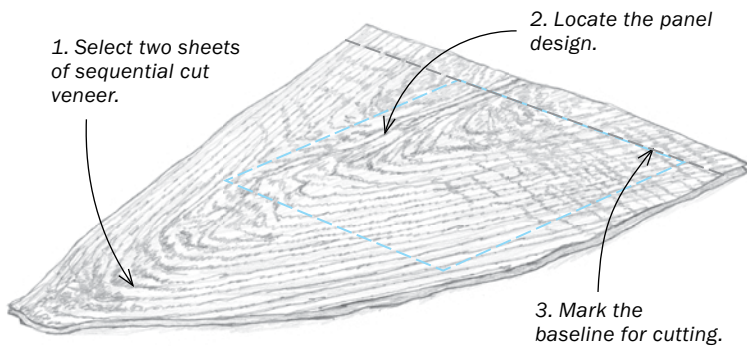
Hose them down. Apply a heavy coating of flattening solution across both faces of each sheet of veneer and stack them for pressing. Van Dyke places the consecutive sheets on the clamping platen with a few pieces of blank newsprint in between each sheet.



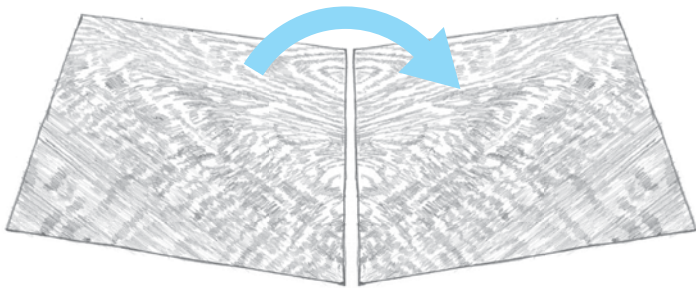
Apply some pressure. A few clamps are enough to tame the wavy veneer. Change the newspaper a few times a day over the course of two days, or until the veneer is no longer cold to the touch.

Decide on the show veneer

THE BASIC BOOK-MATCH



Cut the panels oversize and flip for a book-matched pattern.



a striking book-match, but one of my favorites is walnut crotch, which I used for this panel.

A book-match consists of two consecutive sheets of veneer stacked on top of each other, cut to size, and then opened like a book. It's perfect for a show face, but a less-spectacular piece of veneer will do for the hidden back side of the substrate.

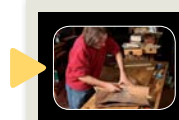
Buying veneer is inexpensive compared to the equivalent solid stock, but it can be hard to find the right veneers. The best are usually available only from specialty veneer companies and the best source is probably online. Some websites have the actual flitch pictured and it's important when ordering to specify that the leaves must be sequence-matched.

It's best to buy at least one more sheet than you'll need and buy the thickest veneer you can—more than $\frac{1}{40}$ in. is ideal. Many veneers sold today are thinner than that and are very hard to work with. Veneer, especially a highly figured sheet, does not come ready to use; you usually have to flatten it.

Flatten the veneer

For a book-matched panel, you'll need at least two sheets of face veneer and a single sheet of veneer for the back side. Keep in mind, it takes a few days to flatten the veneer.

Before flattening, number the sheets and be sure to keep them in order throughout the process. Spray both faces of each sheet with a veneer-flattening solution (GF-20, veneersystems.com). Let this stand for 20 minutes, then stack the wet veneer sheets with a few sheets of blank newsprint in



VIDEO SERIES

Learn traditional veneering from Bob Van Dyke in a members-only video at FineWoodworking.com/extras.



Mirrored view. Two pieces of mirror taped together help you visualize potential matches in the veneer. A couple strips of scrap pine can be used to section off the actual size of the panel, giving a better view of how the book-match will look.



Mark out the cuts. Once the match has been selected, Van Dyke marks out the book-match seam and the edge perpendicular to the seam. A red pencil makes the marks stand out on the dark walnut veneer.

between them. Put the entire package between $\frac{3}{4}$ -in. melamine cauls, clamp it firmly, and let it sit.

Replace the wet paper a few times a day for two to three days until the veneer is no longer cold to the touch. It's easier to keep the treated veneer flat if it stays in the clamped cauls when not being worked on. With the veneer flattened, select two sequenced sheets to begin designing the book-match.

Mirror reveals a perfect match

To help visualize the book-match, I use a couple of mirrors taped together—about 8 in. by 10 in. is a good size. For a simple book-match, place the mirrors upright on the veneer stack, in the approximate place of the glue seam. The reflection will show you the match. To help visualize

Cut and tape the veneer

the panel, use a couple of scraps of wood to outline the finished panel. Remember, it's doubled along the length by the mirrors, so the sticks to mark out the long sides are half-length. When you're happy with the match, mark a line against the mirror. This will be the seam of the book-match. To determine the bottom and top edge of the panel, use an architect's triangle to draw a line perpendicular to the mirror.



Rough out the veneer. With the two sheets for a book-match stacked and aligned, use a veneer saw and straightedge to rough out the pieces. The straightedge must be wide enough to register the veneer saw fully.

Cut the sheets

With the match drawn out, double-check that sheets are exactly aligned, one on top of the other, so they can be cut to size. To do this, pick a grain line or mark and make sure that it does not migrate diagonally to the next sheet. If it does, move the top sheet so that the grain lines on both sheets are parallel to each other. Rough-cut both sheets at the same time. Check for square with the edge of the panel and, using a veneer saw and straightedge, cut both sheets at least 1 in. oversize.

Now, open the sheets along the seam to see the match. If you lined them up correctly, the match should be close to perfect. If it's not, slide one sheet over the other until the joint lines up better and draw a new line. Cut one sheet on that line, put the two pieces back together, and cut the joint again—parallel to the new cut you made and about $\frac{1}{8}$ in. away from it. When you get the grain match you want, turn the sheets over and butt them together on the bench to prepare them for glue-up.



Tape brings it together. After lining up the grain for the match, stretch blue tape from one side to the other to bring the seam together tightly. Folding the ends of each strip makes removal much easier.

Preparing for glue

To get the veneer ready to be glued, I use a combination of the standard crinkled blue painter's tape and traditional veneer tape to get a seamless glueline. Cut a handful of pieces of blue tape about 4 in. long and fold over the ends to make a removal tab. Starting in the middle of the back of the sheets, put a piece of tape on one sheet, pressing down on the first sheet and then carefully pulling the sheets together with the tape. Press the tape onto the mating sheet and repeat with the other pieces of tape. The tape stretches and acts as a clamp, stitching the sheets together.

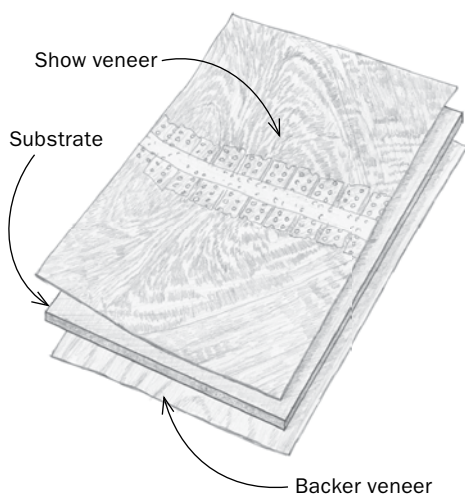
Now turn the taped sheet over and do the same on the show face using veneer tape. The veneer tape is activated by water and must be moistened before applying it. After the stitching, I usually put



Flip it over for more tape. With the blue tape on, flip the sheet and apply veneer tape to the other side, stretching it over the seam horizontally. A final strip of veneer tape helps reinforce it even further. Once it's set, flip it back over and remove the blue tape.

Glue the panel

VENEER FRONT AND BACK



Roll out the brown carpet. Roll a healthy coating of liquid hide glue on the substrate for the panel (left). The coating has to be even and full to avoid dry spots. After both sides are loosely taped in place on the substrate, put the panel in the cauls for clamping (right).

a longer piece of veneer tape along the length of the joint to further reinforce the stitched pieces. When the veneer tape is dry, carefully remove the blue tape from the other side. To avoid pulling the veneer apart, pull up the blue tape diagonally, keeping the tape close to the surface. The veneer's now ready to be glued to the panel.

Get the glue going

Start by cutting the MDF substrate and the taped veneer about 1 in. oversize. When sizing the veneer to the MDF, make sure the seam stays in the middle and is square to the edge.

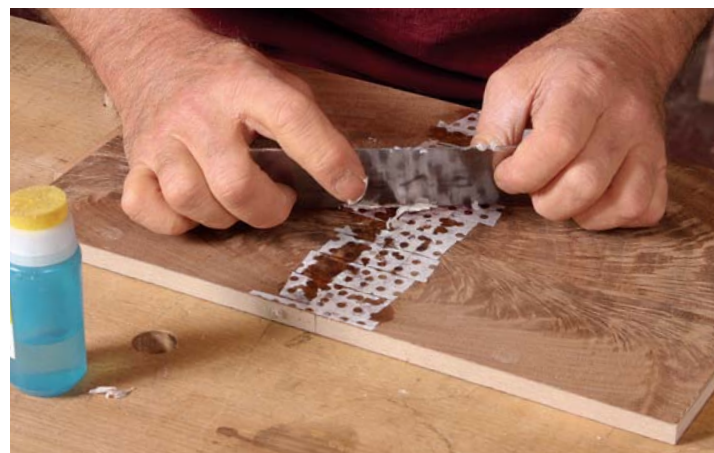
Set up two $\frac{3}{4}$ -in.-thick glue cauls that are about $\frac{1}{8}$ -in. bigger than the panel all around. To keep glue off the cauls, line the inside faces with clear packing tape. I apply the liquid hide glue with a roller, which is fast and easy. Set up a way to suspend the roller when not in use; otherwise, it will stick to the surface you lay it down on. Roll an even layer of glue on one side of the MDF and place the veneer. A single, thick layer on the substrate is more than enough. Turn the assembly over and repeat for the inside face. Tape the corners of the assembled panel so it doesn't shift and place it between the cauls. Put the assembly on two blocks and add the clamps, starting from the middle. Let the panel dry for at least 24 hours before removing the clamps.

The finished panel

When the panel comes out of the clamps it will have glue squeeze-out and rough edges. Strike a straight line about $\frac{1}{4}$ in. from the bottom edge, perpendicular to the glueline. Using the tablesaw with an L-fence, cut on the line. Joint that edge and rip the panel to final width. Now mark the center of the top and lay out the two end cuts, keeping the seam in the middle. Cut to those lines, step back, and admire your work. □



Keep an even keel. The panel should see even pressure across the cauls, so using numerous clamps is advantageous even on a small panel. Give the panel 24 hours to cure before removing the cauls.



Scrape it clean. To make the veneer tape easier to remove, Van Dyke wets it with an envelope moistener and then uses a card scraper to gently scrape away the remnants.

Bob Van Dyke is the director of the Connecticut Valley School of Woodworking.