

Beautiful border frames a sunburst tabletop

BY MARK ARNOLD

Depending on the design, the border around the veneered center of a tabletop can have a strong voice, or it can serve its purpose with a whisper.

I'll illustrate how you can use contrasting veneer to increase the "wow" factor of even a piece as dramatic as a sunburst tabletop (see "How to Veneer a Sunburst," pp. 72-79). By cutting the border, also known as crossbanding, with

either a concave or convex curve where it meets the sunburst, you can produce two very different looks: A concave edge produces a floral motif, while a convex curve creates the look of a spider web.

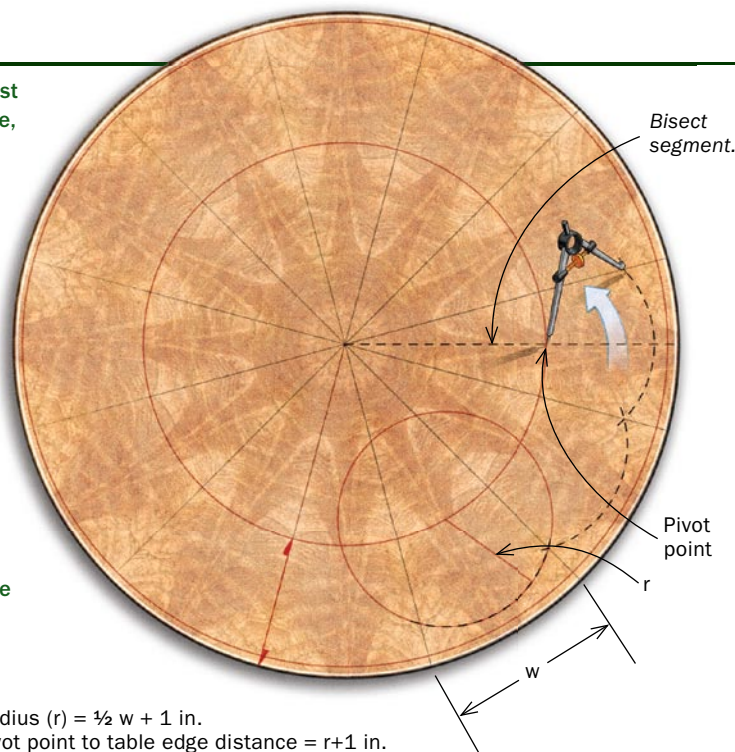
I'll describe how to make the floral motif in this Master Class, but you can learn how to create the spider-web border at FineWoodworking.com/extras. Each method uses the radial seams in the sunburst pattern as the

CREATIVE CURVES

The radius at the end of each sunburst segment is a matter of personal taste, but the following formula is Arnold's favorite:

Calculate the width of a segment (w) at the edge of the circle. The radius (r) is half this width plus 1 in. Set a compass to this distance. To find the pivot point in each segment, draw a line that bisects the segment and measure in from the edge the distance of the radius you just calculated plus 1 in. Gently set the point of the compass on this spot and mark where the pencil crosses the two seams of that segment. If the two marks are an equal distance from the edge of the table, you're good to go. Mark the pivot point with a pencil.

Radius (r) = $\frac{1}{2} w + 1$ in.
Pivot point to table edge distance = $r + 1$ in.



Draw the design. After deciding on an attractive radius, mark the pivot point in the center of each sunburst segment, and use a compass to draw the arc across the end of each segment.

Rout the recess



Clear pivot block is the trick. Drill a hole in a piece of clear plastic, center the hole over the pivot point of the arc, and attach the block to the veneer with double-stick tape. The block allows you to pivot trammel points without damaging the sunburst veneer.



The right arc. Drive a screw through the trammel just enough that the tip engages the hole in the pivot block. The router bit should align with the outside edge of the scribed arc.

terminal points for each section of the border veneer.

Cut the design in the sunburst

To make the concave border, start by cutting a convex arc on the end of each segment of the sunburst. The radius of the arc is determined by several factors, but the most important is appearance. Here's a simple approach that produces an attractive curve. First, locate the pivot points of each segment by dividing the width of the segment at the table edge in half and then adding 1 in. This is the radius of the arc. Add an inch to the radius, measure this distance from the



A clean cut. Swing the router around the pivot point, creating a groove at the end of each sunburst segment. Then loosen the screw and move the router freehand to remove the rest of the waste.

table edge to the center of each segment, and mark this point.

Because you'll use a trammel twice on each segment of the sunburst, temporarily apply pivot blocks to each segment. Use a piece of 1/8-in.-thick clear plastic with a 3/64-in.-dia. hole drilled in the center. The clear plastic allows you to center the hole directly over the pivot point without damaging the veneer.

Set up a router with a 3/4-in.-dia. mortising bit and secure it to a trammel. Attach pieces of clear plastic to the underside of the trammel on both sides of the bit to keep the ends of the



Finish the corners by hand. After routing the waste to the edge of the table, clean up the inside corners with a bench chisel.

Cut and apply border veneer



Profile the border. Book-match the veneer and then bandsaw the concave profile in a stack.

trammel level. Drill a hole in the trammel the same distance from the inside edge of the router bit as the design's radius. Extend a drywall screw through that hole until the trammel sits securely in the pivot point. You can now swing the router from this fixed point and excavate the veneer from the sunburst segment. After cutting the initial groove using each pivot point, retract the pivot screw and rout the rest of the waste freehand toward the edge of the tabletop. The trammel will keep the router level. Use a 1/2-in. bench chisel to clean up the inside corners where the arcs meet.

One scallop at a time

While you could use the same border veneer shown in the article, for added impact I like to use veneer with contrasting colors, such as this Macassar ebony, and book-match it. By making the sections just wider than half the width of each segment, you get a book-matched effect both in the middle of each arc and where they adjoin.

Using a compass set to the radius of the original arc, trace the curve onto a stack of book-matched veneer, and carefully bandsaw the curve. Because the joint between the sunburst and the border will be filled with stringing, a



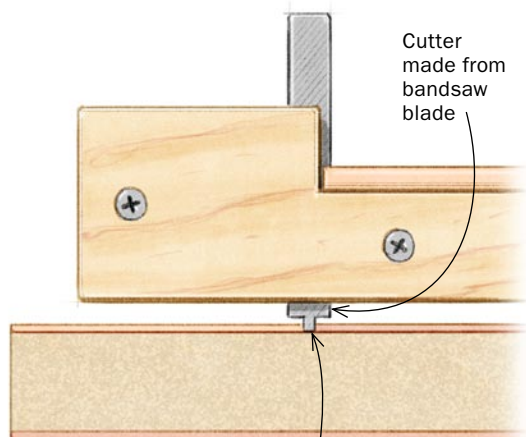
Align the pieces. Place the book-matched joint in the border on the center line of a sunburst segment. Then cut the veneer along a line that extends from the sunburst seam.

A clean joint. Align the back of a plane blade against the cut segment, and then cut through the uncut adjoining piece underneath. When making the cut, angle the blade to keep the cut vertical.



Glue one or two sections at a time. Place a bit of plastic film followed by a piece of rubber sheeting on top of the sections. The rubber allows uneven thicknesses of veneer to receive even pressure while the plastic prevents the rubber from getting glued to the veneer.

Add the stringing



Groove is $\frac{1}{16}$ in. wide and deep enough to reach substrate.

perfect fit is not essential. Work your way around the tabletop, aligning the seams with those of the sunburst. Use a wide chisel or plane iron to chop joints. Fit and glue one or two pieces at a time.

Stringing highlights the design

Once all the veneer has been glued in, inlay stringing to hide the seam between the border and the sunburst. This can be done with a router, but I prefer a scratch stock at the end of the trammel.

You won't be able to scratch or rout the inside corners where the arcs meet, so for these parts I use a piece of bandsaw blade ground down to form a kind of chisel. Inlay the stringing one section at a time, mitering the joints with a chisel. Apply glue to the groove, install the stringing, and push it home with a mallet.

Once the stringing is dry, bring it flush with the surface, then follow the steps in the article, routing the final edge of the tabletop, applying the edge-banding, and adding the protective hardwood corner. The tabletop produced with this method will wow viewers for decades to come. □

Online Extra

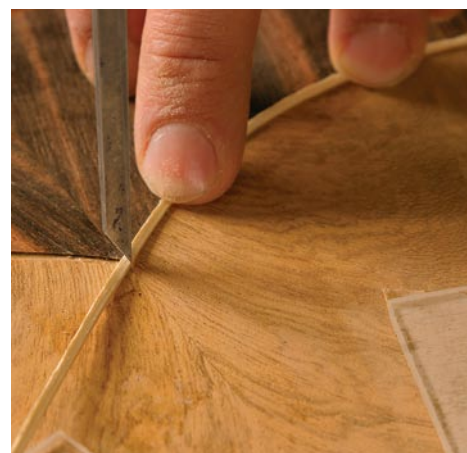
To watch Arnold demonstrate a different design, go to FineWoodworking.com/extras.



Same pivot point. Use a scratch stock on a trammel to cut a groove between the sunburst and the border veneers.



Cut the corners. A knife extends the groove into the corners where adjacent arcs meet.



Miter the ends. Cut the ends of the stringing in line with the veneer seams.



A little persuasion. The stringing may swell slightly when it contacts the water-based glue, so make sure it sits in the bottom of the groove. After the glue dries, scrape and sand the stringing flush.