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- Step-by-step construction instruction.
- A complete bill of materials.
- Construction drawings and related photos.
- Tips to help you complete the project and become a better woodworker.

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Holiday Gift Box

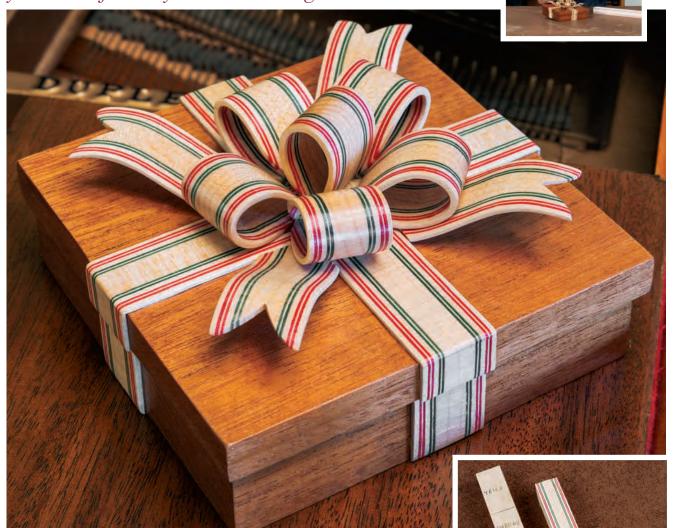


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Holiday Gift Box

By Carole Rothman

Tie this "present" up with a festive ribbon and bow you make from dyed veneer using a scroll saw.



eeding something different for holiday giving, I decided on a box that could either stand alone or serve to contain an additional gift. This mahogany box is the perfect showcase for its colorful adornment — a festive striped bow that looks complex, but is easily made with some patience, care and a lamination of maple and dyed veneers.

Laminating the Ribbon Stock

Begin by creating the stock for your ribbon/bow lamination. Although I generally use natural wood colors for my projects, dyed-through veneers are ideal for setting a holiday theme. I decided that red and green veneer combined with strips of light, clear maple would be colorful and festive, and they contrast well with the mahogany box. I buy my thin maple veneer, which is typically about 1/32" thick or slightly less, but I make the thicker 1/16" veneer stock myself from resawn wood that is dimensioned with my SuperMax drum sander. For the dyed veneer, I ordered several pieces in red and bright green from a woodworking supply company.

Multiple laminations of clear maple and both dyed and plain veneer form blanks for the patterned ribbons, bow loops and tails.



Mount the paper pattern (page 4) to a 1"-thick square of mahogany that will become the walls of the box. Cut along the inside line to remove the large center waste piece.

I developed my lamination pattern by dry-stacking different pieces of wood until it looked like a real ribbon. Ribbons tend to be symmetrical, so I started at the center with a 3/8"-thick piece of maple. To make the first side of the lamination, I added a "sandwich" of one piece of maple and two pieces of green veneer, a 1/16"-thick piece of maple, another "sandwich" of one piece of maple and two pieces of red veneer, and another piece of 1/16"-thick maple. This completed the first side. I then added the same sequence of veneer to the other side of the center strip of maple. The final thickness of the lamination was 7/8". If, as a result of veneer thicknesses, your results are more than 1/16" off in either direction, you have two simple options. You can adjust your lamination by adding or removing wood symmetrically to reach 7/8", or redraw the "face" side of the loops and tails pattern to match the lamination thickness. Either option is fine.

Because the block has many layers,

glue it up in stages, working from the center and alternating sides to equalize the moisture added by the glue, and to minimize warping. I used a catalyzed PVA glue called Weldbond® which has a good "grab," dries clear, and cleans up easily, but any good quality wood glue should work. Apply the glue generously to one side of the maple and spread it evenly. Attach the first piece of veneer and slide it back and forth until it starts to drag. Add one or two more pieces and clamp tightly. I used a small veneer press made of 3/4" plywood and carriage bolts to clamp up my glue assemblies. To control slippage, glue no more than two or three pieces at a time. Let each stage dry thoroughly.

Cut the finished lamination into two strips, each 9¾" x 1". One strip is for the six loops needed for the bow. Cut a 5¾"-long piece from the other strip for the ribbons. The remainder of that strip is for the tails and one extra loop.



Spread glue around the bottom edges of the box wall workpiece, and clamp on the 1/4"-thick bottom panel.



Cut along the pattern's middle line to reduce the box walls to 1/8" thickness and to trim the box to final size. Already installed, the bottom will match perfectly.

Building the Box

Making the box is mostly a scroll sawing and sanding operation. First, make two copies of the paper pattern on the next page and spray mount one to a block of 1"-thick mahogany measuring at least 5¾" square. Drill an entry hole, and cut along the inside line with a #9 blade (it cuts thick stock quickly) to open up the box's center. For the sharp inside corners, cut to the end of a side, back up a bit, then cut a curve to the next side. Once



Smooth and square up the box lid with some careful work at the disc sander (right). When fitted on the box (above), the lid should slip into place with minimal side-to-side play.







Mark layout lines (left) for cutting strips of 1/16"-thick ribbon (top). Before sawing, sand the blank to smooth one of each ribbon's faces.

Follow the same process for mak-

ing the lid: mount a fresh pattern to





Glue and clamp one ribbon across the top of the lid, and clean up any squeeze-out (top). Line up and glue on two more ribbons to form a crisscross pattern (bottom).

the waste piece is removed, you can cut into the corners to remove the remaining small pieces. Sand the inside walls smooth. Next, keeping the grain aligned, glue and clamp a square of 1/4"-thick mahogany to the box walls (opposite the patterned face) for the box bottom. Clean up squeeze-out before it dries. To complete the box body, cut along the middle line of the pattern, just to the waste side of the line. Remove the pattern and sand the box faces smooth.

a second piece of 1/4-in. stock to form the lid walls. Drill an entry hole and saw along the center pattern line, using a #3 blade to create a smoother cut on the thin stock. Glue a third 1/4-in. blank to the lid walls for a top. When it dries, cut along the outer line and sand the lid to final size and shape.

Place the lid on the box body

Holiday Gift Box Full-size Pattern (Box and Lid)

You'll need two copies of this pattern for the box.

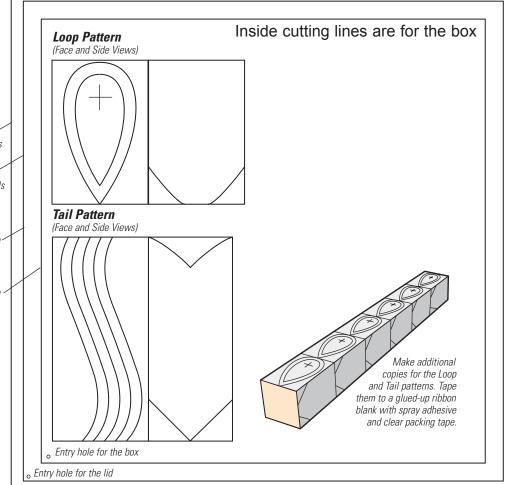
Outside of / the Lid Walls

Inside of / the Lid Walls

Outside of the Box Walls

Inside of the Box Walls

Outside cutting lines are for the lid

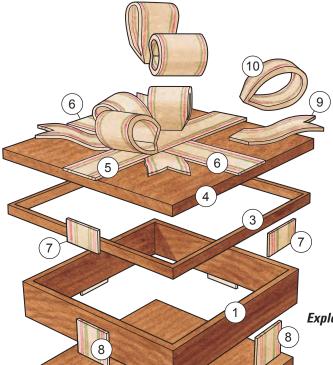


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Trim off the lid's overhanging crisscross ribbons, leaving them 1/16" proud of the edges (left). These ends will overlap the lid's side ribbons. When fitting them, hold a strip of ribbon in place and mark its length carefully, leaving a bit of overhang here (right). Cut and glue the short ribbons in place.





Sand the bottom ends of the ribbons flush with the box bottom. Then gently ease the corners of all the ribbons by hand with sandpaper to simulate that they are folded around the lid and bottom edges of the box.

Exploded View

MATERIAL LIST

| | | TxWxL |
|--|---------------------------|----------------------|
| 1 | Box Walls (1) | 1" x 5" x 5" |
| 2 | Bottom (1) | 1/4" x 5" x 5" |
| 3 | Lid Walls (1) | 1/4" x 5½" x 5½" |
| 4 | Top (1) | 1/4" x 5½" x 5½" |
| 5 | Cross Ribbon, Long* (1) | 1/16" x 7/8" x 5¾" |
| 6 | Cross Ribbons, Short* (2) | 1/16" x 7/8" x 2½" |
| 7 | Lid Side Ribbons* (4) | 1/16" x 7/8" x 9/16" |
| 8 | Box Side Ribbons* (4) | 1/16" x 7/8" x 1½" |
| 9 | Tails* (4) | 7/8" x 1" x 21/8" |
| 10 | Loops* (6) | 1" x 1" x 1½" |
| * Pieces 5-10 are cut from two blanks 7/8" x 1" x 9¾". | | |

with the grain aligned, and check the fit. It should have minimal play. Sand both pieces to 320-grit and soften all edges by hand. Now draw two intersecting pencil lines across the center of the lid and down the sides to guide the placement of the flat ribbon sections.

"Wrapping" the Box

You'll need to cut four flat ribbons to wrap around the box and lid. Cut these from the striped face of the 5¾"-long piece of the lamination, following a straight layout line for each cut. Sand the face of the blank before the first cut, then between each of the remaining

cuts so one face of the ribbons will be smooth. You'll glue the sanded face to the box; the other faces get sanded later.

Once the ribbons are cut, draw a line down the center of the sanded face of two of them. Center one ribbon across the top of the lid, matching the layout line on the lid. Glue and clamp this ribbon in place.

Cut the other ribbon in half and butt the pieces against the first ribbon, crosswise. Glue these shorter ribbons to the lid, making sure the stripes are continuous across the lid. When the ribbons dry, invert the lid and trim them so they overhang about 1/16" beyond the lid edges.

To make the lid's side ribbons, cut the remaining two ribbons in half. Invert the lid and align each piece vertically on the overhanging cross ribbons. Mark their lengths and cut the pieces slightly long. Glue them in place by rubbing them against the lid until the glue grabs, then clamp them briefly. Let the glue dry.

Now place the lid on the box and invert the assembly. Fit the remaining pieces of ribbon on the sides of the box, aligned

(See inset photo, page 2.)





Mount a folded paper pattern of the bow tails around a blank of lamination so you can reference both the face and edge layout lines for cutting. Cut away the wedge first (left), then flip the blank on its side to make five curved cuts for the four tail workpieces (right).



with the lid ribbons and butted against the bottom edge of the lid. Mark where each ribbon meets the bottom of the box and cut them slightly proud. Glue them in place. When dry, sand the surface of the ribbons smooth and to uniform thickness, and sand all ribbon ends flush with the edges of the box and lid. Soften the ends of the ribbons so they appear to fold



Refine the contoured faces of the tails using a spindle sander or sanding drums in the drill press (left) and a belt sander (right). Smooth and shape the parts into flowing curves.



around the top of the lid and box bottom. Then use painter's tape to mask off the center area of the lid where the loops and tails will be glued. Apply a sealer coat of shellac to the rest of the box and lid surfaces. When it dries, smooth the finish with 320-grit paper and peel off the tape.

Topping It Off with a Bow

The loops and tails of the bow are made with scroll sawn compound cuts. If you're new to this technique, try making some practice cuts with plain wood first. To make the tails, cut a piece 21/8" long from the remainder of the strip you used for the flat ribbons. Fold the tails pattern and attach it with spray adhesive so that the side of the pattern labeled "face" is on the striped side of the strip. With the face side up, cut out the wedge from the top of the tails. Then turn the strip on its side and cut along the five curved lines to cut the four tails. Tape the tails and waste piece together again, so you can cut the pointed "bottom" end of the tails. Separate the pieces, and use spindle and belt sanders to shape them further.

Mask off the undersides of the tails at the bottom and spray-shellac the bare wood. After smoothing the finish with 320-grit sandpaper or 0000 steel wool, coat the bottoms of the tails with spray lacquer. Remove the tape and place the tails into position at the intersection of the lid ribbons. If needed, sand the tail undersides slightly to flatten them for gluing. Glue the tails into place, supporting their raised ends until the glue sets.

Now it's time for the loops. Photocopy and attach six Loop Patterns to the remaining laminated strip, face side of the pattern on the striped side of the strip. Cover the side to be drilled with clear packing tape to hold the paper securely. Drill 7/16"-diameter holes



Apply a piece of clear packing tape to hold the folded paper bow patterns in place on the lamination. The face side of the patterns should be oriented on the face side of the veneer.



Drill a 7/16" diameter through hole at the crosshairs on each bow pattern to remove much of the inside waste.



Cut away the remaining waste from inside the loops, then saw along the outer lines. Save the offcut.



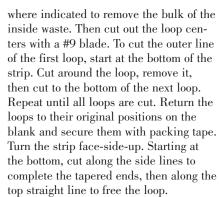
Complete the compound cuts for the loops with the pattern's face side up. This will require that the offcut be taped back in place first.



Smooth the inside cutouts of the bow loops using a small diameter sanding drum for the curve and a file to refine the tapered end.



Shape the outside surfaces of the loops at a belt or disc sander. Work carefully to keep from sanding your fingers in the process.



Sand and shape each loop, and select one for the bow's center. Sand its point flat to form a gluing surface and mask that off. Mask the first 5/8" of the undersides of the other loops, too. Seal them all with shellac, and remove the tape when the finish dries. Glue the five loops, evenly spaced, to the center of the lid, then glue the center loop into place, and clean up any squeeze-out. Now you can finish the outside of the box and bow with several light coats of spray lacquer. Complete the box interior as you like, either with red- or green-colored flocking and paint or a clear lacquer.

Carole Rothman is the author of Wooden Bowls from the Scroll Saw (Fox Chapel).



Mask off the contact surface of each loop, and seal the wood with a coating of spray shellac. Then glue on the loops to form the bow. Small pieces of sponge are useful again to hold the loops in position. When the glue dries, finish your gift box with several light coats of spray lacquer.