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Bill Krier
Editor
WOOD® magazine

Adobe Acrobat Troubleshooting Guide

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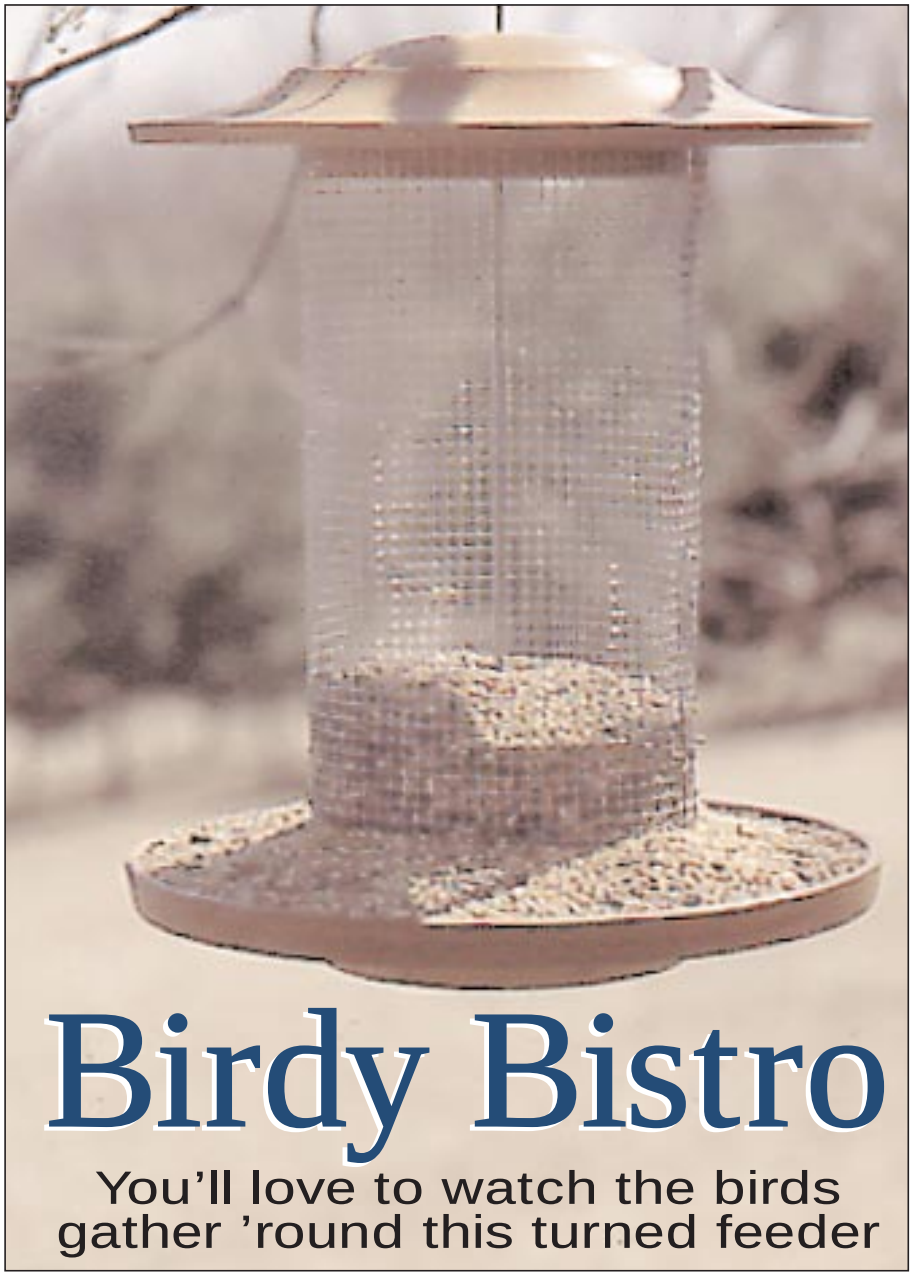


Birdy Bistro

You'll love to watch the birds gather 'round this turned feeder

Tools and materials

Stock: Mahogany or other wood suitable for outdoors, two 2¼×12½×12½" blanks (about 5 bd. ft. total).

Supplies: Hardware cloth, ¼" mesh, 12×24"; ⅛" galvanized steel cable, 5'; two cable ferrules; ½" screw eye; water-resistant glue; exterior finish.

Lathe equipment and tools: 3-4" faceplate, rotating cup center, ½" bowl gouge, ¾" skew, ⅛" parting tool, bowl scraper, roundnose scraper.

Build the blanks to begin

1 Make two 2¼×12½×12½" blanks. You can laminate and edge-glue stock for blanks, using a weather-resistant glue. We made blanks for one birdfeeder from ⅝ mahogany surfaced to 1⅛"; for another, from ¾" material.

2 On each blank, mark the center on the face that will be the outer surface. Around the center, draw one circle 12½" in diameter and one the same diameter as your 3-4" lathe faceplate.

3 Bandsaw two circles the diameter of your lathe faceplate from scrapwood 1-2" thick. Glue one of these wasteblocks inside the small circle on each blank. Bandsaw the large circle.

Start turning with tenons on the top and bottom

1 Attach the lathe faceplate to the wasteblock on the lid blank, using 1" screws. (See the Attaching the Faceplate to the Blank drawing.) Mount the assembly on your lathe.

2 Round the blank to 11¾", and true the edge and face. Referring to the Birdfeeder Lid Full-Size Pattern in the *WOOD PATTERNS*® insert, form a 6"-diameter tenon ½" long on the face.

To do this, hold a pencil point against the surface 3" from the center while the lathe runs. Next, cut in ½" deep with a parting tool just outside this guideline. Make another ½"-deep parting-tool cut midway between that one and the edge.

Then, using a bowl gouge, cut away the waste between the edge and the tenon. With a skew, turn the roughed-out tenon to finished diameter, forming a slight taper as shown.

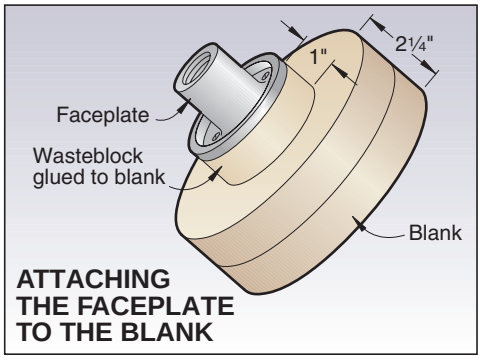
3 Sand the face smooth, using 100- and 120-grit sandpaper. When sanding the side of the tenon, don't take too much off. Remove what waste you can from the outer part of the other side; then dismount the turning, and remove the faceplate from it.

4 Attach the faceplate to the wasteblock on the second blank, and mount it on the lathe. Turn the blank to 12" diameter.

5 As on the lid blank, lay out a 6"-diameter tenon on this bottom blank. Make the two parting cuts ¾" deep, and rough out the tenon.

6 Draw three guidelines on the face around the tenon, one ¼" in from the edge, one ½", and another 2¾" in. At the second line, cut in ¼" deep with the parting tool. Make a parting-tool cut ⅝" deep at the innermost line.

7 Referring to the Full-Size Pattern for the bottom, hollow out the bowl of the rim. Guide on the parting-tool



ATTACHING THE FACEPLATE TO THE BLANK

DP-00389a

cuts to establish the depth. Curve the bottom of the tenon so it flows into the bowl, as shown.

8 Turn the tenon to finished diameter, which should be the same as the largest diameter of the lid's tenon. For precise sizing, you can scrape or sand the tenon to final diameter.

(You'll mount the lid and bottom for turning the other side by inserting the tenon into a jam chuck. The more uniformly they're sized, the easier it will be to turn both with one jam chuck.)

9 Mount a Jacobs-type drill chuck on the lathe tailstock. Chuck a ⅛" twist drill in it, and drill ½" deep at the center of the tenon. If you don't have a drill chuck for the lathe, mark the center after sanding, and drill the hole with a drill press when convenient.

10 Draw a guideline around the side of the tenon, ¼" below the top edge. Form the sloped top of the tenon between the center and the guideline.

11 Sand the rim bowl and tenon smooth. Again, don't take too much off the tenon. Dismount the turning, and remove the faceplate from it.

12 On a drill press, drill four equally spaced ¼" holes in the lowest part of the bowl, as indicated on the pattern.

Make a wooden jam chuck, and turn the outer surfaces

1 Bandsaw an 8" disc of 1½–2"-thick scrapwood. Center the faceplate on one side, and mount it on the lathe.

2 Turn the face and edge true. Then form a recess in the front, referring to the Jam Chuck Section View drawing in the *WOOD PATTERNS*® insert.

The turnings's tenons must make a tight fit in the chuck, so turn the recess carefully. Start by roughing it to a diameter slightly smaller—say ⅛" smaller—than the tenon measurement. Then enlarge it in small increments, testing the fit after each cut. Scrape or sand the recess to final diameter. Taper the side slightly—about 1°—for a tight grip.

3 Insert the lid's tenon into the recess in the jam chuck, as shown in the photo *top right*. For more security, especially when making roughing cuts near the rim, bring up the tailstock, with a rotating cup center installed, to clamp the turning into the jam chuck.

4 Mark the edge of the turning to indicate the thickness at the rim. On the face of the turnings, measure 3" out from the center, and cut in ⅝" deep with the parting tool. Form the curve between the rim mark and the parting-tool cut.

5 Next, part off the wasteblock. Then turn the top of the lid to shape. Slope the surface surrounding the dome slightly so water won't stand on it.

6 Mount a drill chuck on the tailstock. Chuck a 3⁄16" twist drill in it, and drill through the center of the lid. If you don't have a drill chuck, mark the center on the lid after sanding, and drill the hole later with a drill press.

7 Sand the turning with 100- and 120-grit sandpaper. For best appearance on the outer faces, turn off the lathe after you sand with each grit, and sand with the grain. Remove the turning from the jam chuck.

8 Chuck the bottom, and turn it to shape, following the same general procedure. Sand the bottom.

Wrap a wire cylinder, and put the feeder together

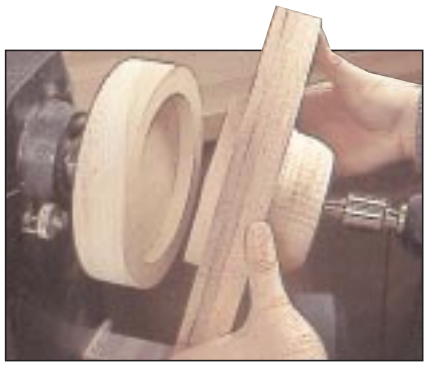
1 Apply a clear exterior finish to the turnings. (We brushed on Penofin, an oil finish.)

2 Install a screw eye in the hole in the bottom tenon. Slip a ferrule 2" or 3" onto one end of a piece of ⅛" steel cable. Loop the end of the cable through the screw eye, and secure the loop with the ferrule.

3 Cut two discs of scrapwood (⅜" plywood would be fine) to the diameter of your lid and bottom tenons. Roll a 12×24" piece of ¼"-mesh hardware cloth around them to form a 12"-tall cylinder. (It will probably help to screw or tack one edge of the hardware cloth to the discs.) Trim the hardware cloth so it overlaps by about two squares. Lace the edges together with tie wire, and remove the discs.

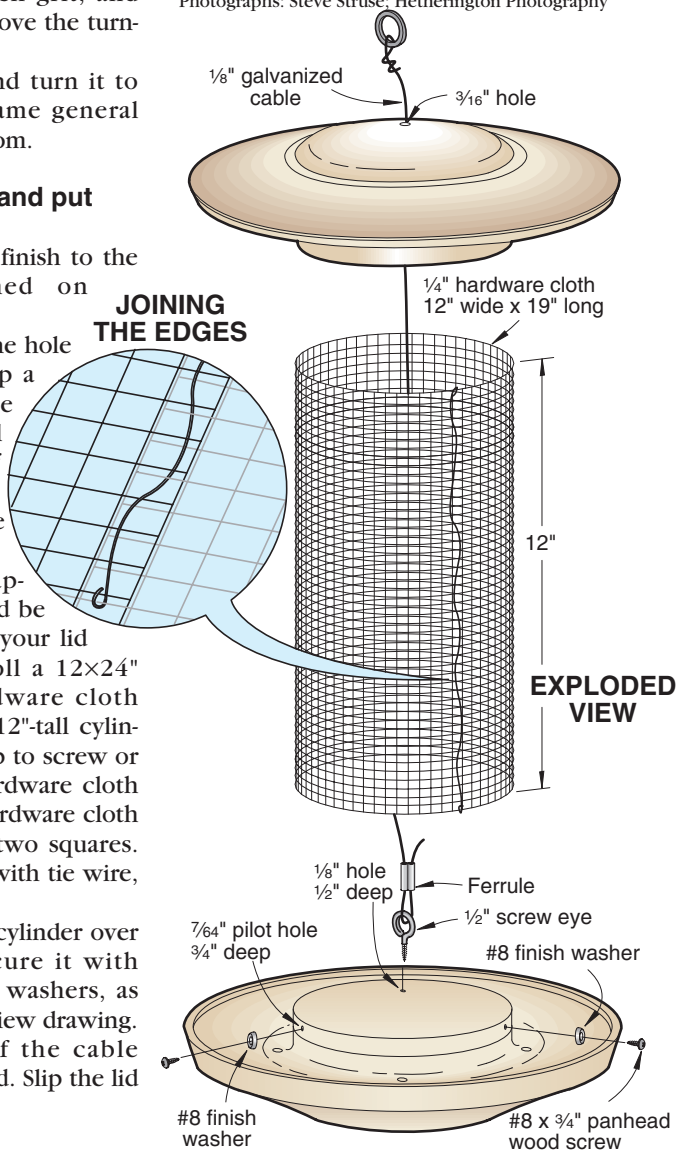
4 Fit the hardware-cloth cylinder over the bottom tenon. Secure it with three screws and finish washers, as shown in the Exploded View drawing.

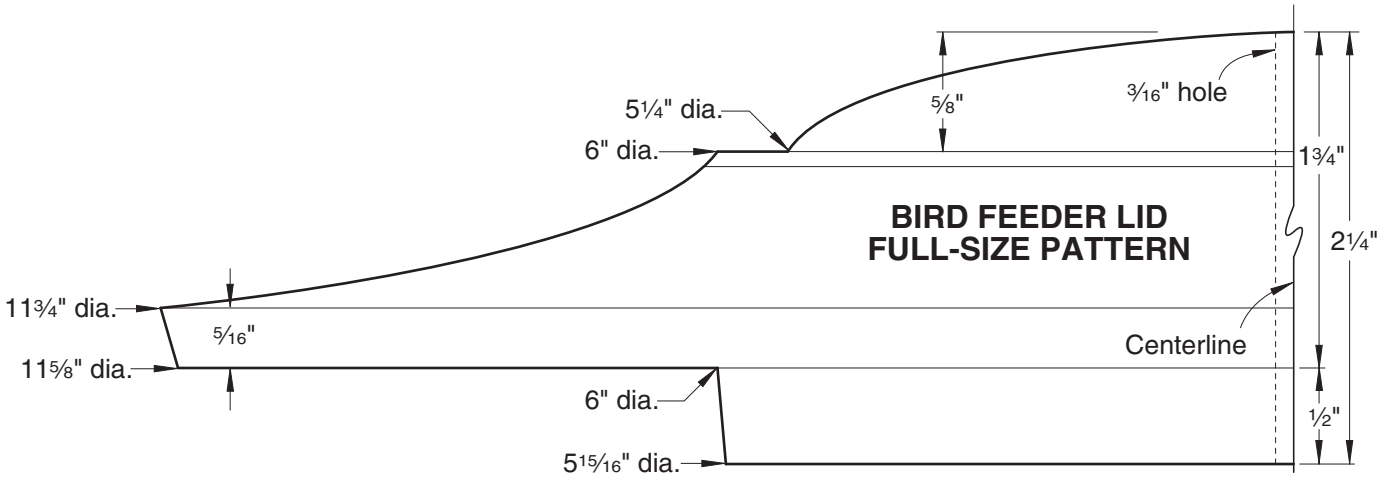
5 Pass the free end of the cable through the hole in the lid. Slip the lid into the top of the wire-mesh cylinder. When you hang the feeder, leave enough cable length above it to allow sliding the lid up for filling.

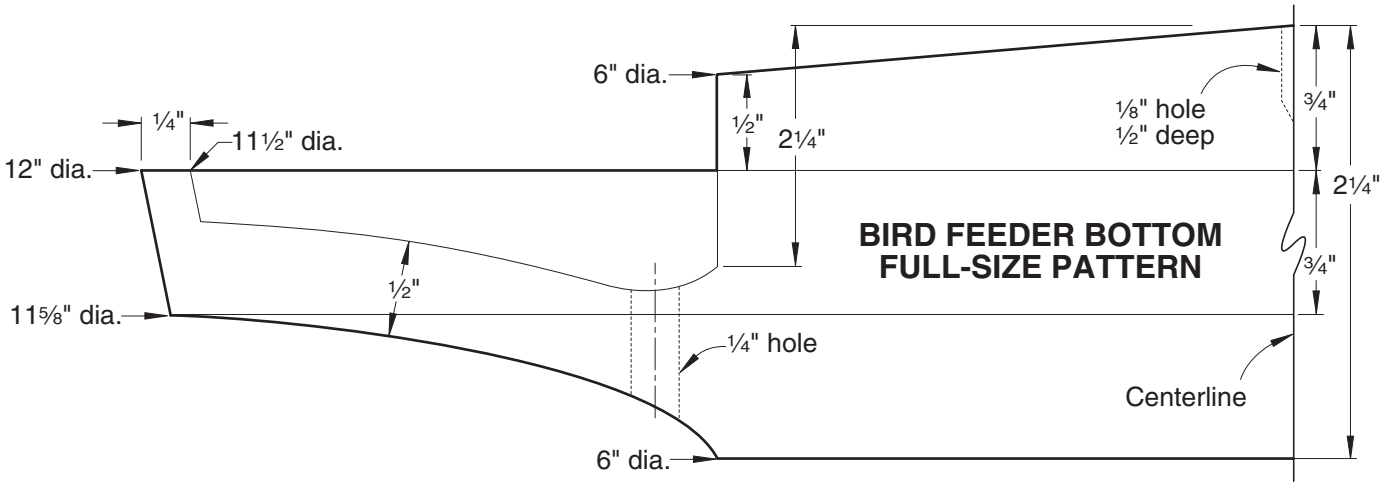


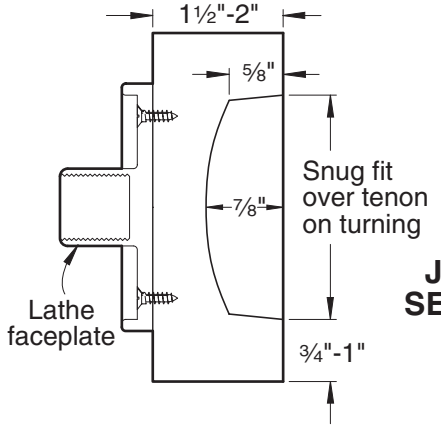
Fit the tenon on the lid into a jam chuck to turn the top surface.

Project Design: James R. Downing
Birdfeeder turned by Ray Wilber
Illustrations: Roxanne LeMoine; Lorna Johnson
Photographs: Steve Struse; Hetherington Photography









JAM CHUCK
SECTION VIEW

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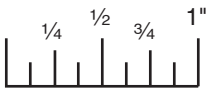

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