

Rolling Pin of Many Colors

designed by Joseph M. Herrmann

The very first article that I wrote for *Creative Woodworks & Crafts* (see Issue #34, April 1995) explained how to make a rolling pin. That first article started a relationship that eventually grew into the editorship of this magazine. Being slightly superstitious, I decided that my initial article for *Woodturning Design* should also be a rolling pin.

That first rolling pin was my version of an antique that I saw at an auction. The original was made from curly maple and sported stationary handles. Mine was similar to the antique, but was turned from a laminated block made up of several species of wood. Over the years, I have had many requests to develop a rolling pin with handles that rotate, so here it is!

LAMINATE THE BLOCK

Like my first article, the main shaft of this rolling pin is turned from a laminated block made from several different species of wood. Begin by determining what woods you want to use. I decided to use ash, cherry, red oak, and walnut for my rolling pin, but any combination of woods would work. You decide.

Square up four pieces of stock to 3/4" x 3" x 16". Decide the order that they will be glued together and spread glue on both of the mating surfaces. I used Titebond II wood glue because it seems to be just a little more tacky than other glues, sets up more quickly and is water resistant. I spread the glue out with a roller applicator that dispenses the glue faster and more evenly than if I had used just a brush.

I prefer to use adjustable hand screws to clamp the block together, but other methods would also work. Just be sure to use enough clamps, to keep the jaws of the clamps parallel to one another, and to span the entire joint with clamps. Allow the assembly to cure overnight.

Remove the clamps and scrape off the excess glue with a glue scraper. Connect the upper right-hand corner of the block and the lower left-hand corner with a dark line (see **Fig. 1**). Cut this line on

the bandsaw, being careful to cut as straight as possible. Flip the two resulting triangles end-for-end so that the two initial outside surfaces are touching.

Apply glue to these two surfaces and clamp them together (see **Fig. 2**). I like to clamp the assembly on top of a bench or table. The two blocks of wood on either side of the assembly prevent the two glued surfaces from slipping when clamping pressure is applied to the joint. Again, adjustable hand screws work best. Allow the assembly to cure overnight.

PREPARE THE BLOCK FOR TURNING

Scrape off any dried glue and joint two adjacent surfaces to create a 90-degree angle. Mark these two surfaces with an "X." Plane the other two surfaces on the thickness planer to obtain a 2-5/8" square block. Finally, crosscut both ends on the mitre saw to form a 13"-long blank.

Connect both corners of the ends and mark their centers with an awl. Drill these two centers with a 1/2" brad point drill, 2-1/4" deep on the drill press. It is important that the holes be perpendicular to the ends of the block, so use a square to check that the blank is square with the table.

I have had the misfortune of having small pen blanks catch on the drill bit and spin in my fingers. Therefore, I clamped the blank in an adjustable hand screw to provide a little more leverage while drilling.

A small plug (see **Plug Diagram**) must be turned to fill the hole and to provide a bearing surface for the 1/2" spur drive. I turned a 2"-long "T-shaped" plug to fit snugly in the hole (see **Fig. 3**). My revolving center fit snugly in the other hole; if yours doesn't, you will have to make a plug for the other end as well. If you have to turn a plug for the tailstock end, reverse its profile so the cup center impression will remain visible.



SUPPLIES

Tools: Jointer, planer, table saw, bandsaw, adjustable hand screws, glue roller, mitre saw, drill press with 1/2" brad point drill bit, lathe with assorted chisels, scroll chuck, drill chuck with 5/8" brad point drill bit, outside calipers, ruler, handheld electric drill with sanding mandrels, disc or belt sander, and dead blow mallet

Preserve*

Assorted-grit sanding discs

120-grit abrasive paper

Titebond II wood glue

**Preserve is available at local woodworking stores or can be ordered from: Packard Woodworks, Inc., PO Box 718, Tryon, NC 28782; phone: 1-800-683-8876; or website: www.packardwoodworks.com; Order: #126801, \$8.95 + \$4.95 for shipping.*

COMPLETE THE CYLINDER

Mount the stock between centers and turn the block until it just comes into round and to 2-5/8" in diameter. Use a straightedge to check that the cylinder is straight and true; adjust as needed. A roughing gouge works best to do this.

Measure over 1/8" from the end of the cylinder and draw a line around the stock. Measure down 3/4" on the end of the stock and draw another line (see **Fig. 4**). Use a gouge to form a shallow cove connecting these two lines.

I power sand whenever possible. I used the ridged, Merit "power-loc" system to sand the cylinder, starting with 150-grit and working up to 320-grit. I found that the Velcro system worked best for the cove on the end grain. I started with 240-grit and finished with 320. I found that it was easier to sand the cove detail at the headstock end of the blank if I reversed the cylinder on the lathe, so this detail was on the tailstock end.

PREPARE THE HANDLES

A 5/8" hole must be drilled all the way through the handles. I found that this is best accomplished by mounting the stock in a scroll chuck and drilling the hole on the lathe with a brad point drill bit.

I started with a block of curly maple that measured 1-5/8" x 4-3/4" long. Because there is no way to "back up" the end of the block while it is being drilled, there is a real chance that the end could splinter when the drill bit exits the block. Using a longer block eliminates this problem, and I cut the block to 4-1/2" after drilling.

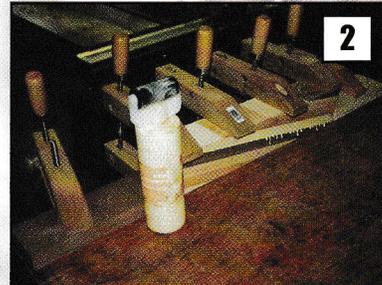
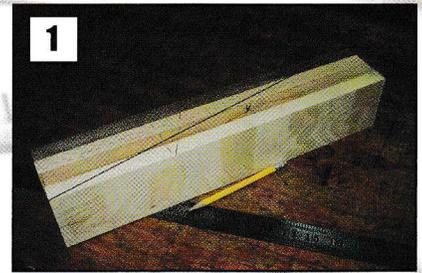
After the hole is drilled, a 5/16" x 45-degree chamfer must be cut in the end of the blank. Draw a 5/16" line on the outside of the hole and another 5/16" line on the inside. Use a detail gouge to connect these two lines and form the required angle (see **Fig. 5**).

MAKE THE PINS

I chose red oak for my pins and started with a block 1-1/8" square x 7-1/4" long. Mount the stock between centers using a 1/2" spur drive and a revolving cup center.

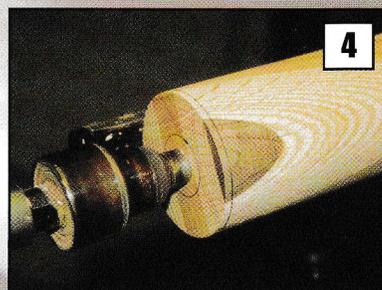
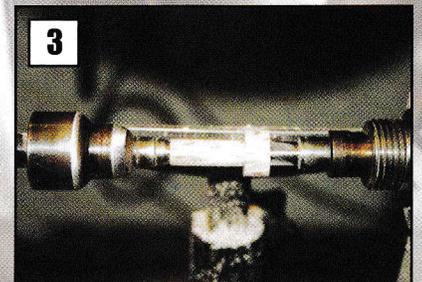
Turn the stock to 1" in diameter. Measure over 6-3/8" from the headstock end and make a 5/8" shoulder cut with a parting tool. Reduce the block to the left of this cut so the shaft fits loosely—but **NOT** sloppily—in the hole in the handle blanks. Measure over 5/16" to the right on the remaining shaft and form a 45-degree angle here as well. I cut a 45-degree angle on a piece of 1/8" masonite to form a gauge to check the angle (see **Fig. 6**).

Draw a dark line from corner to corner on the block and cut this line carefully on the bandsaw.



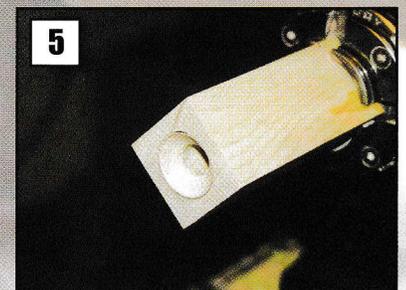
Glue the two flat surfaces together to form the angled pattern on the block.

This is the T-shaped plug that I made to go into the hole at the headstock end of the block.



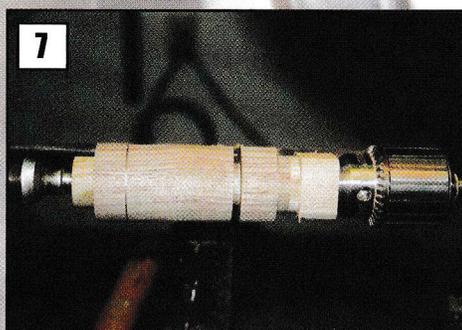
Layout for the shallow cove detail on the end of the cylinder.

A 5/16" x 45-degree chamfer is cut around the hole.

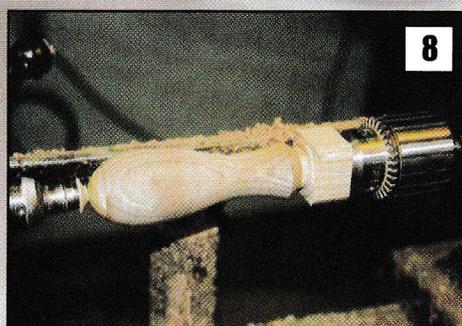




6
Cut a 5/16" x 45-degree chamfer on the end of the pin that will mate with the one on the handle blank. I made a gauge to check the angle from a piece of 1/8" masonite.



7
The initial sizing cuts are made to "block out" the shape of the handle.



8
The handle is formed and is ready to be power sanded.

BILL OF MATERIALS

Part	Size in Inches	Quantity	Wood (or wood of choice)
Cylinder	3/4 x 3 x 16 (rgh.)	4	Red Oak, Cherry, Ash, Walnut
Pins	1-1/8 sq. x 7-1/4 (rgh.)	2	Red Oak
Handles	1-5/8 sq. x 4-3/4 (rgh.)	2	Curly Maple
Plug	1 dia. x 2	1	Red Oak

Measure over 2-1/4" from the headstock and make a 9/16" shoulder cut with a parting tool. Reduce the shaft to the left of this cut to 1/2" so it just fits into a 1/2" hole in the cylinder (see **Pin Diagram**).

TURN THE HANDLES

Insert the pin into the handle block and mount the assembly on the lathe. I used a small 1-1/8" long spacer block with a 1/2" hole drilled through its center to fill up the remaining space on the shaft. Your drill chuck might require a different size, however, so check to be sure.

"Block out" the handle as shown in **Fig. 7**. Turn the block round and check that it is approximately 1-1/2" in diameter. Draw lines at 5/16" and 1-3/4" respectively, from the headstock end of the handle. Use a parting tool and calipers to turn the first line down to 1-1/4" and the second one down to 15/16". Pencil in another line 3-5/8" to the right of the headstock. This marks the high point of the handle and is the transition line between the bead and the cove. And finally, draw another line 4-3/4" away from the headstock end to mark the end of the completed handle (see **Handle Diagram**).

Once the handle is "blocked out," use a gouge to form the shape (see **Fig. 8**). Check it against the Handle Template pattern provided.

Power sand the handle. Cut off the attachment point, remove any excess stock with a disc or belt sander, and hand sand the end. Keep in mind that the end of the handle should be rounded and slightly egg-shaped, **NOT** flat!

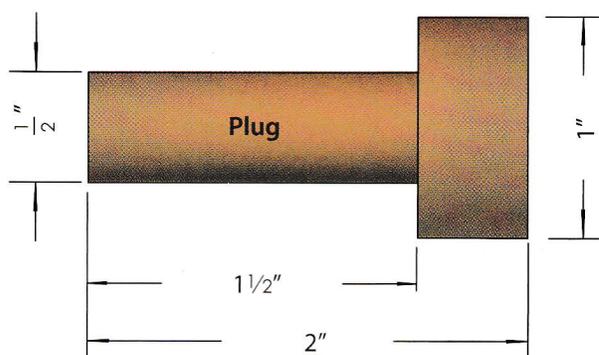
ASSEMBLY

After the other handle has been turned, they can both be glued into the main cylinder (see **Assembly Diagram**). Dry fit the handles and pins into the shaft. There should be approximately a 1/16" gap between the end of the handle and the end of the cylinder. Reduce the length of the pins if necessary, being careful not to get them too short.

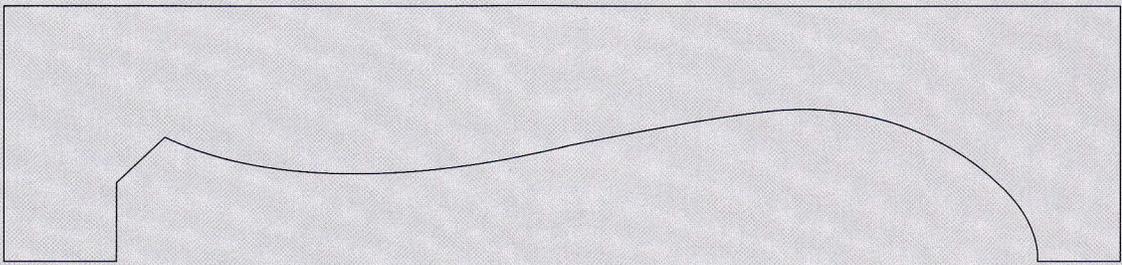
Apply glue only to the portion of the shaft that will be inserted into the cylinder. Insert the handle assembly into the hole, remove it and wipe off any excess glue. Do this several times in order to spread the glue in the hole. Once you are satisfied, line up the grain of the pin with the grain in the cylinder and gently tap it home with a dead blow mallet. **BE SURE NOT TO GLUE THE HANDLE IN PLACE**; it must rotate freely on the pin. Allow the assembly to cure overnight.

FINISHING

I like to finish all my turnings that might come into contact with food with "Preserve." According to their advertisements, this oil is pressed "from the meats of exotic nuts" and is food-safe. I like it bet-



Plug Diagram

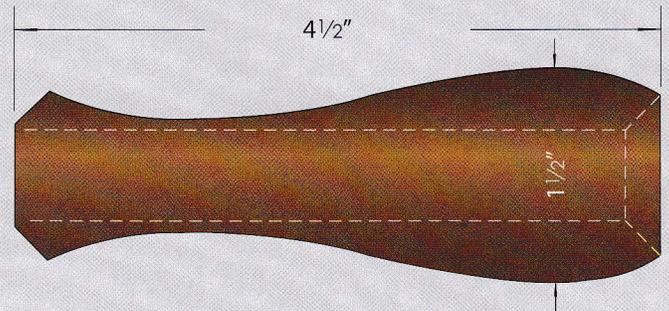


Full-size Handle Template

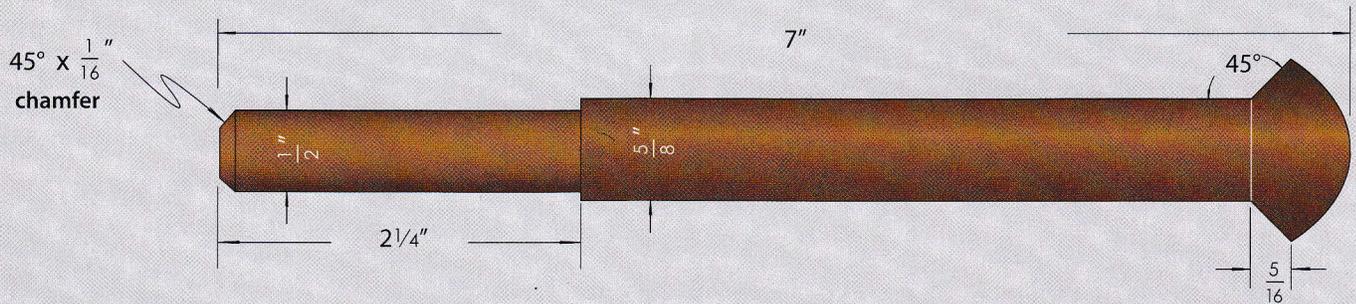
ter than other, more traditional oils because salad oil sometimes gets rancid and mineral oil always appears "wet" to me. Preserve is available from many different woodworker supply catalogs. An 8 oz. bottle will cost around \$9.00 plus shipping.

I apply a liberal coat of Preserve with a brush, let it soak in overnight, and then apply another liberal coat. Again, allow the oil to soak in overnight, and then wipe off any excess oil that remains on the surface of the turning with a soft cloth.

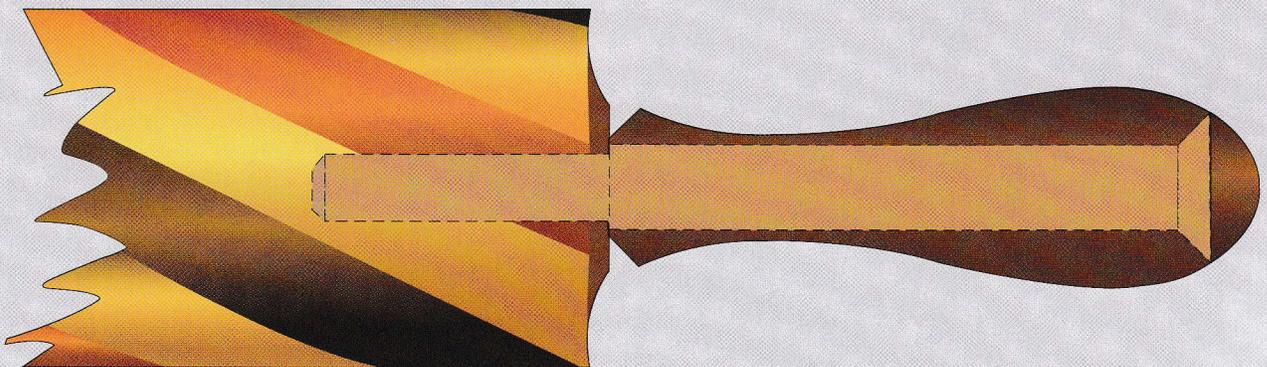
All that remains is to use the rolling pin to make a nice fruit pie or some other baked goods. My piece can be sent to me at...



Handle Diagram



Pin Diagram



Assembly Diagram