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Bill Krier
Editor
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Follow my step-by-step formula for success

A Treasure Trove of Tiny Turnings

Hey turners, are you looking for something neat to do with all those wood scraps too beautiful to toss, yet seemingly too small to serve any purpose? Faced with the same dilemma, I blew the dust off of my miniature turning tools and got busy. Not only was I able to shape a small-scale, Southwest-style hollow turning, but I was able to do it in less than 15 minutes—start to finish. Now, after turning 100 or more of these little beauties, I thought I'd share my proven process with you.



Mark Kemmet

WOOD ONLINE
Manager

Cut the down-sized bowl blanks and mount them

1 Using a plastic circle template (available at art supply stores) or a compass, mark circles about 2" in diameter on stock that's about 2" thick. (You also can laminate thinner stock to form the blanks.) My finished turnings shown on *Page 1*, measure 1¼-2" in diameter and 1¼-1½" tall.

2 Fit your bandsaw with a ⅛" or ¼" blade, and cut the blanks to shape as shown in *Photo A*. I normally cut about 20 to 30 blanks at one time, and throw them in a plastic ice-cream pail.

3 To form an auxiliary wooden faceplate, trace around your 3" metal faceplate onto 2×4 stock. Bandsaw the stock to shape, drill pilot holes, and screw the auxil-

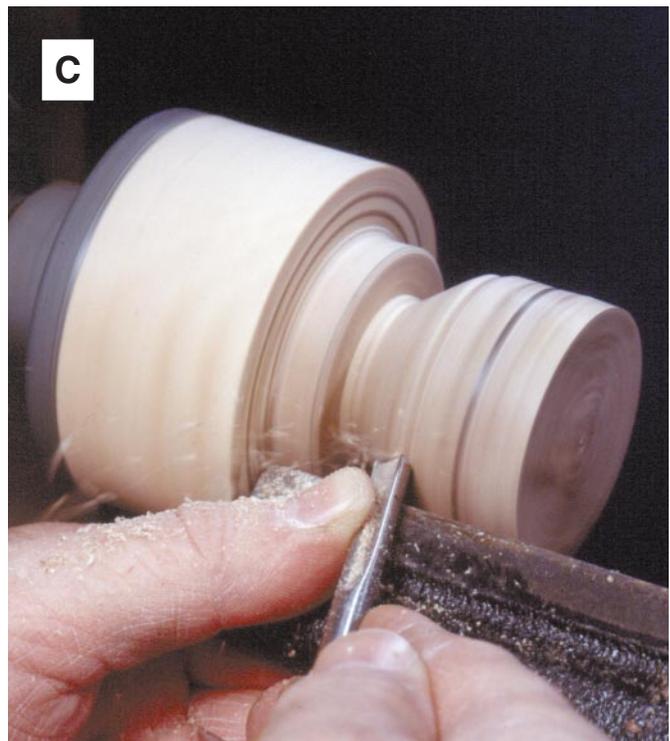
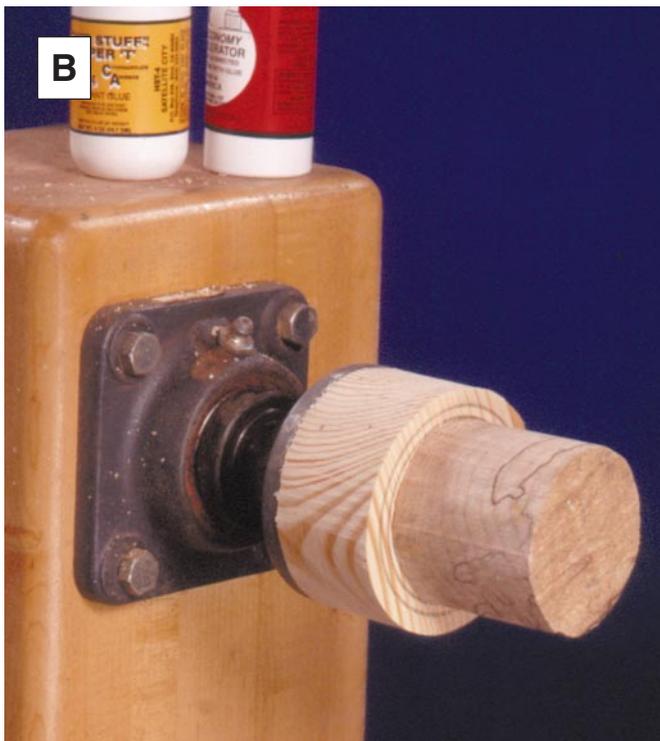
iary wooden faceplate to your 3" metal faceplate with #10×¾" sheetmetal screws.

4 Center and adhere the round blank to the auxiliary faceplate, shown in *Photo B*. If you have trouble centering the round stock on the auxiliary faceplate, start the lathe and use a pencil to mark concentric circles on the face of the auxiliary wooden faceplate. Then, just center and glue the round blank in one of the circles.

While regular woodworker's glue will work, instant glue allows you to start turning within minutes instead of waiting overnight for regular glue to dry. For an immediate bond, I apply instant glue to the round blank and spray the accelerator on the auxiliary faceplate, then hold the two pieces together. (See the Buying Guide on *Page 5* for our source of cyanoacrylate adhesive, accelerator, and miniature turning tools.)

Let the turning begin

1 See the photo on *Page 1* for some of my favorite Southwest-style shapes. It takes me two or three vessels to get the shape



exactly as shown. But, once I've duplicated a shape successfully, I find it much easier to come back to that shape later, and turn it to the proper proportions.

At a speed of about 1,250 rpm, use the 1/4" gouge to turn the blank perfectly round. Then, turn the end of the blank flat. With the miniature parting tool, make a parting cut into the side of the blank no more than 3/8" deep at least 1/4" from the end of the wooden auxiliary faceplate. (Later, I'll use this 1/4" of stock to form a jam-fit chuck for turning the vessel's bottom to shape.)

2 Mark a reference line on the blank at the point you wish to have the largest diameter. Then, as shown in *Photo C*, put the 1/4" gouge to work to start shaping the bottom portion of the turning. Shape to the parting cut. Do not turn the bottom to final shape; leave it oversized. You'll need plenty of stock for support when turning the top and inside to shape. Turned too narrow, the tiny turnings will tend to snap off at the base.

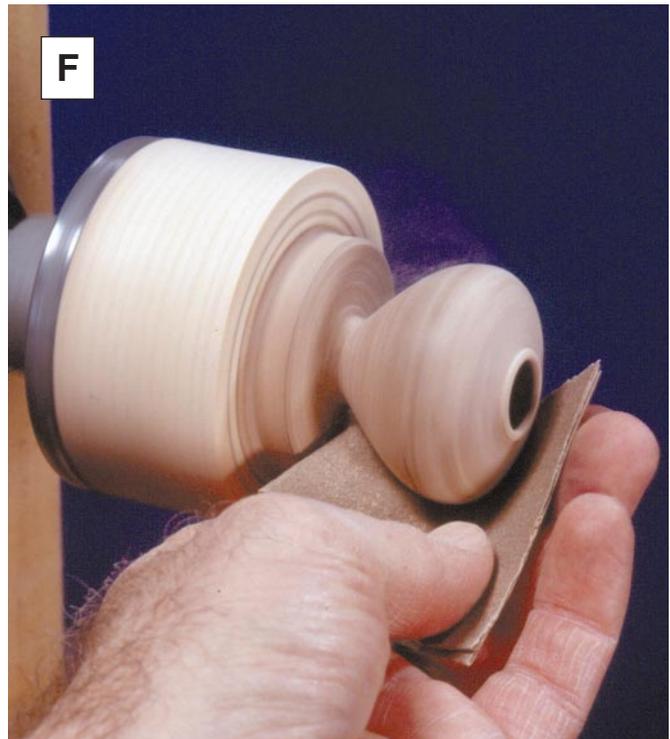
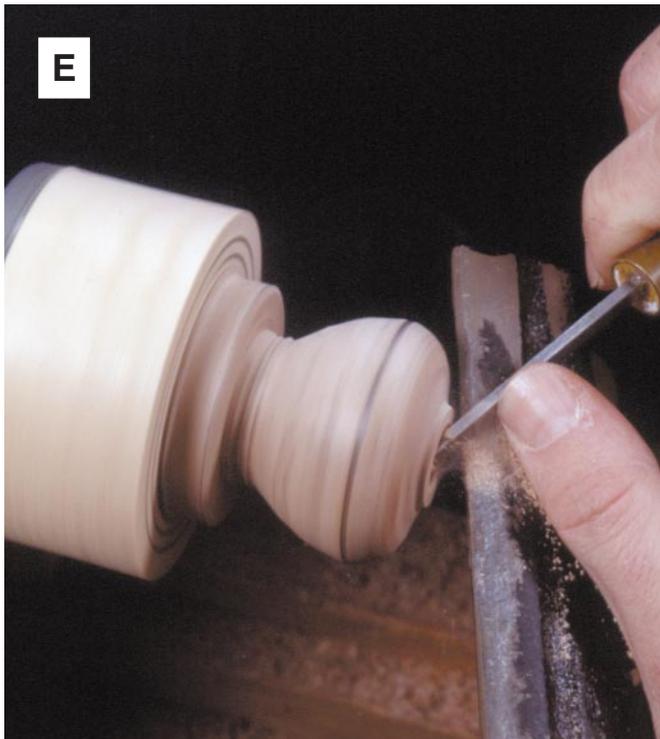
3 Turning above the marked ref-

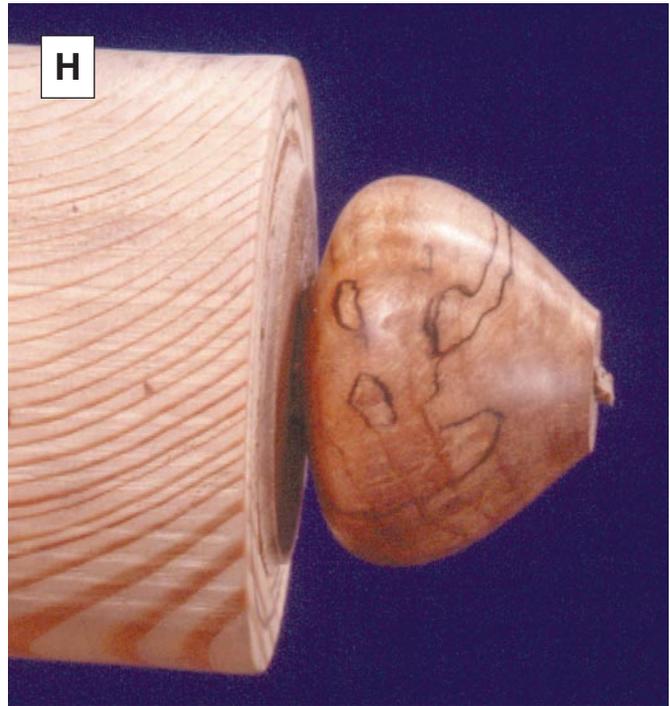


erence line, turn the top of the vessel to shape.

4 To hollow out the inside of the vessel, stick the point of the 1/4" gouge directly in the middle of the turning. Push in lightly; the gouge will act like a drill bit to form an opening as shown in *Photo D*. Slowly, continue pushing the gouge straight into the round

stock until you're about 1/4" from what will be the finished inside depth of the turning. If you find this method a bit intimidating, you also can fit a 1/4" drill bit into a chuck mounted in your tailstock and use this setup to drill the hole. **5** Enlarge the hole to 3/8" or 1/2" diameter. Angle the gouge slightly, and take light cuts to begin hol-





lowing the inside of the vessel. Then, as shown in *Photo E*, come in at a sharp angle with a parting tool to clean the top inside of the turning. Use light pressure when shaping the inside of the vessel; if you push too hard, you're likely to snap off the turning at the base. For vessels with smaller openings in the top, see the instructions on *Page 6* for information on making your own low-cost, bent-nosed scrapers. I turn the walls of my vessels to about $\frac{1}{16}$ " to $\frac{1}{8}$ " thick. You might want to leave yours a little thicker at first, making them thinner as you improve with practice.

6 With the inside hollowed to final shape, finish turning the base to shape. For an appealing shape, I like to make the bases about one third or less than the largest diameter of the turning. For example, a turning that's $1\frac{1}{2}$ " wide will have a $\frac{1}{2}$ "-diameter or smaller base. Turnings with wider bases look squat and bottom-heavy.

Sand it, finish it, and part it off

1 Using 150-, 220-, and then 320-grit sandpaper, lightly sand the

exterior of the turning as shown in *Photo F*. Again, don't apply too much pressure or you could snap the turning at its base. For vessels (turnings with small opening at the top), I don't sand the interiors of the vessel. Bowls get both the inside and outside sanded.

2 There's little secret to my finishing process other than sanding to remove all marks and applying several coats of a fast-drying clear finish such as Behlen Master-Gel Clear Finish or Deft lacquer, with a clean piece of cloth. To do this, I stop the lathe and use a small piece of cloth to apply the finish. I restart the lathe and hold a second piece of clean, dry cloth against the turning to create heat. This burnishes the piece and dries the finish immediately. Two or three applications of finish and the burnishing process is sufficient.

3 Hold the miniature parting tool in your left hand, and cup your other hand around the turning. Now, part the turning with your left hand, and grab the vessel in the other. When parting the turning, angle your parting tool slightly to form a concave bottom on

the turning. A turning with a concave bottom always sits flat. Note in *Photo G* how I left $\frac{1}{4}$ " of scrap stock (the stock between the auxiliary faceplate and the parting cut made earlier) on the outside face of the auxiliary faceplate.

4 For a professional-looking bottom on your vessel, finish turning it on a jam-fit chuck. To do this, turn the $\frac{1}{4}$ "-long nub on the end of the auxiliary faceplate to the same diameter, as the opening of your turning, as shown in *Photo G*. Reduce the tenon diameter slowly, and stop the lathe frequently to check the fit of the tenon in the opening in your turning. The turning should fit the tenon snugly as, shown in *Photo H*.

5 It's easy to turn the tenon too small, resulting in a sloppy fit of the turning on the tenon. But, don't worry, I've got a quick fix. To adjust for this, wrap masking tape around the tenon until the turning fits snugly onto the tenon/tape.

6 Even if the turning fits snugly onto the tenon, you'll need to tightly wrap a piece of masking tape around one side of the turning and onto the opposite sides of



the metal faceplate, leaving the turning's base exposed, as shown in *Photo 1*. Repeat this with two more pieces of tape. Now, wrap a piece of tape around the wooden auxiliary faceplate to secure the ends of the three pieces of tape to the auxiliary faceplate.

7 Remount the faceplate assembly to your lathe, and use the $\frac{1}{4}$ " gouge to finish turning the concave bottom to shape, as shown in Photo 1. Be careful not to remove too much stock; it's easy to turn through the bottom of the vessel at this point. With the lathe running, sand the bottom concave surface smooth.

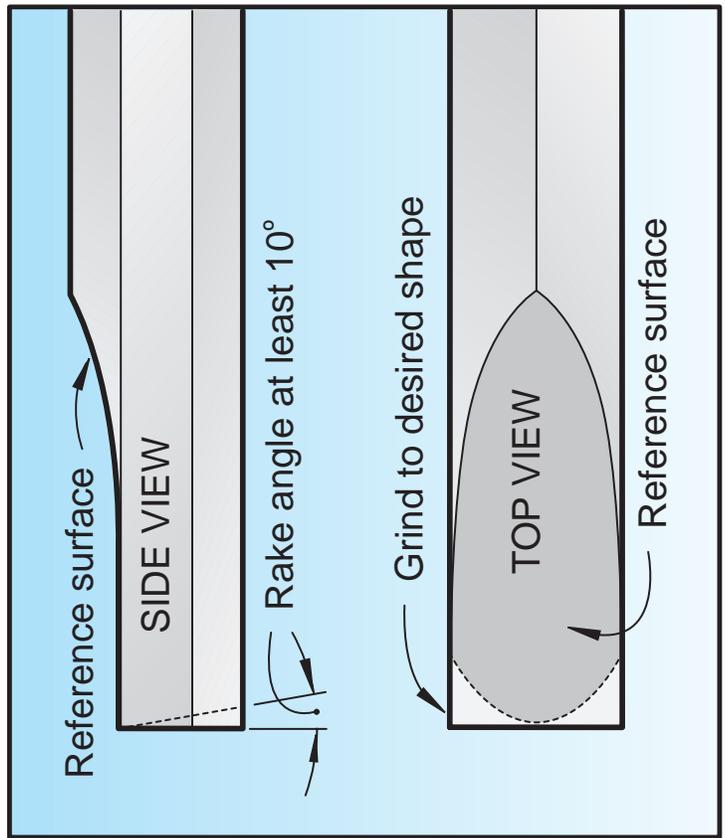
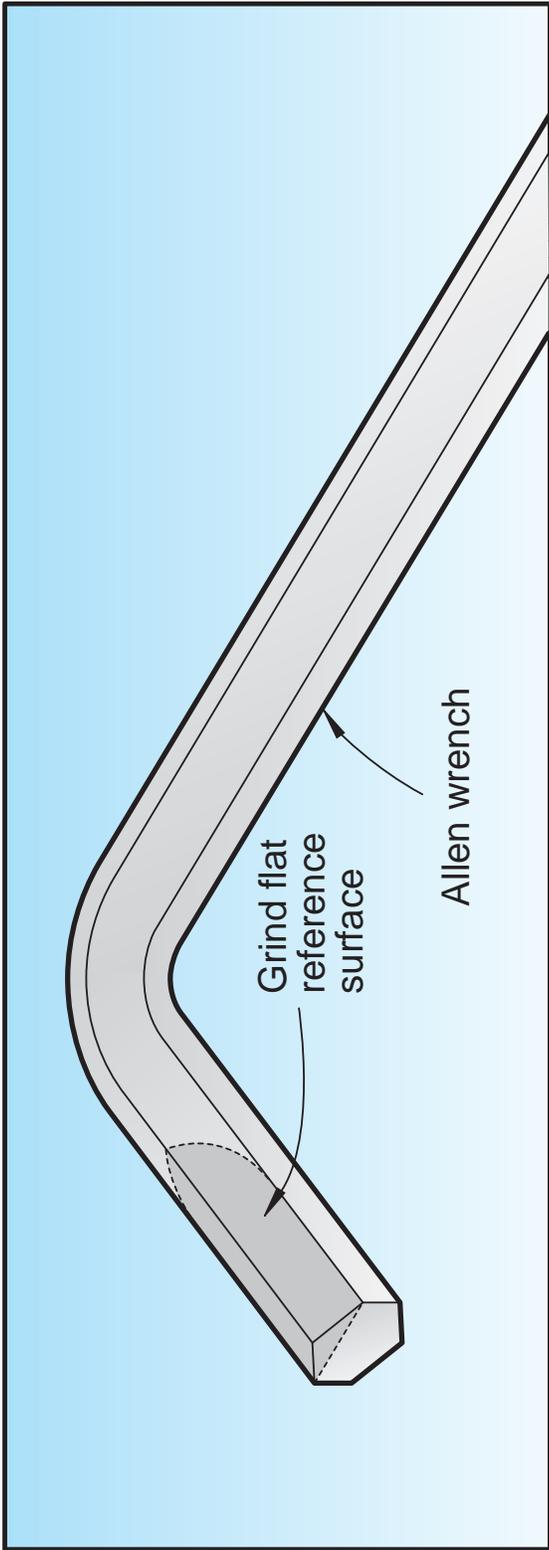
8 With an ultra-fine felt-tipped marker, initial and date the bottom of the turning. Remove the tape to separate the turning from the auxiliary faceplate. Add finish to the signed bottom, and display.

To start the process over, simply use a gouge or parting tool to remove the stock still glued onto the end of the wooden auxiliary faceplate, and glue another blank to the auxiliary faceplate. This allows you to reuse the auxiliary faceplate almost indefinitely.

Buying Guide

Tools and adhesive. For turnings like the ones shown here. 2" and less in diameter, I recommend the 5-piece Sorby miniature tools. For turnings in the 2-3" range, I recommend the slightly stouter 5-piece Henry Taylor miniature set. A 2 oz. bottle of gap-filling cyanoacrylate, and a 3 oz. bottle of accelerator. Craft Supplies USA, P.O. Box 50300, Provo, UT 84605-0300. Call 800-551-8876 for current prices.♣

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