WESTERN CAPE WOODTURNERS ASSOCIATION

NEWSLETTER : December 2025

The Western Cape Woodturners Association is a group of folk with a common interest in woodturning and wood.

We aim to promote the art of turning wood and to create awareness of this craft in the community and encourage young members to join the fellowship.

Members meet every Wednesday at 6.30pm to do " hands-on " turning and get instruction and help.

The venue is the Pinelands Hobbies Club, Nursery Way, Pinelands, Cape Town.

The Formal Meeting is on the 3rd Wednesday of the month at 7pm.

Visitors are welcome .

December 2025:

There will be a club cleanup and re-stocking of wood on Saturday 13th December, and no formal meeting this month.

NOVEMBER SHOWCASE

Showcase results and merits being discussed.

Western Cape Woodturners Association Committee :

Chairman	Gert Ferreira 083 265 5835	gertff3@gmail.com
Secretary/Treasurer	Chris Briers 082 490 1157	chris.briers@uct.ac.za
Facilities Co-ordinator	Tanya Dreyer 082 781 1124	tanya.d@mweb.co.za
Training/Workshop	Johnny Wilsenach 082 3471972	mjrint@telkomsa.net
Multi-Media	Ian Sheard 082 553 9849	iansheard@gmail.com
Training/Workshop	Dudley Durrheim 084 645 2345	durrheimd@telkomsa.net
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Images of some of the November showcase entries.

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EDITOR'S NOTE :

The November showcase had a good entry of 52 pieces. Many thanks to the judges, Mervin Walsh, Gert Ferreira and Rodney Offord who volunteered hours of their time to judge the work. Thanks also to Chris Briers for collating the results and creating the certificates.

There were 20 Gold, 24 Silver and 7 Bronze awards.
Andre Buis and Ian Sheard were promoted to Advanced category.
WELL DONE to all who entered work and especially to the beginners.

The month of December is here, with Festive Greetings and best wishes to all for a safe and relaxing month of celebration.
I have included two more articles around the making of boxes and also ornaments for the Christmas Tree, as well as some interesting ideas for the pen-makers.

Birthdays in December :

A very Happy Birthday to Jean Duchenne, Dudley Durrheim, Johannes Louw, Dez Randall, Brandon Winks, and Axel Zimmermann.

Our grateful thanks to The American Association of Woodturners, American Woodturner Magazine and authors - John Kelsey, Rick Rich and Stephen Hatcher for their permission to reprint their articles.

Hidden magnets hold the lid on this crossgrain box but pop it off when the lid is rotated to repelling polarity.

Keeping the Lid on with HIDDEN MAGNETS

John Kelsey

People love the way hidden magnets hold the lid on this box. Corresponding magnets embedded in the lid and box body secure the lid in "proper" grain alignment. A partial turn releases the grip, but you can't reverse the lid's position because the opposing magnets pop it right off.

While the magnets are totally embedded in the wood and out of sight, the canny observer will spot glue lines, though they are not where people seem to expect. This method of blank prep—using three disks with careful figure matching, blank flattening, and good gluing—gets very close to hiding all the evidence.

The project will challenge your layout and lathe skills because there is the risk of cutting into the embedded magnets. So you need to install them accurately and know where they are. You can't see them inside the wood, but you can determine their locations by sticking extra magnets to the outside.

Craft strategy

Turning this box in crossgrain orientation (with the grain running perpendicular to the lathe bed) works well because long-grain surfaces are better for gluing than endgrain. You can minimize glue lines by careful preparation as well as by design—that's why my box has a bead just under the lid. Glue up the box blank from three sections: lid, join, and bowl, with the magnets pre-embedded in the join section (*Figure 1*).

When glued together, the blank should be about 3" (8cm) thick. The example shown, finished to 4¼" (11cm) diameter and 3⅛" (8cm) tall, started as two pieces of 8/4 stock bandsawn to 4⅝" (12cm) diameter, one for the bowl and the other parted to make the lid and join sections (*Photo 1*). It helps if the wood has been thoroughly dried, but it's not critical because the lid fit isn't critical either—the magnets work better if it's a bit loose. And since they require about ⅜" (9.5mm) of wall thickness, the box is destined to be chunky, not something thin and delicate.

The join section gets bored identically on both sides for four or eight strong rare-earth magnets—shiny little ¼" (6mm) cylinders glued in place with cyanoacrylate (CA) glue. You'll find many suppliers online; just search for "rare earth magnets." Installing all the magnets in the join piece and gluing all three sections into a solid cylindrical blank gives the best grain and figure match. Then part the join section between the embedded magnets and complete the box in the usual way—that is, shape and finish the inside of the lid, fit the bowl to it, hollow and finish the bowl, and only then turn and finish the outside shape.

Hockey pucks

Begin by bandsawing two crossgrain disks to a diameter that fits your expanded scroll chuck and turn them into smooth, flat pucks. One disk is for the lid and join sections, and the other is for the box body. Label the disks accordingly, and draw a sharp witness triangle on the edges so later you can reassemble them in the same configuration (*Photo 2*). From the top disk, part off the join section (*Photo 3*) at a minimum of 1⅛" (29mm) thickness, and preferably 1¼" (32mm) for more breathing room. I use a narrow parting tool, which needs a bit of clearance but reliably wastes a bare ⅛" (3mm) of thickness.

After parting, a sharp scraper will leave a fairly flat surface on the disks, but a straightedge reveals the hills and valleys (*Photos 4, 5*). To finish flattening the parts, use a sanding board (a flat

3-Part blank from 2 disks

The box blank is assembled from two matching, quartersawn disks of 8/4 stock. This box is made in crossgrain orientation, with the grain running perpendicular to the bed ways.

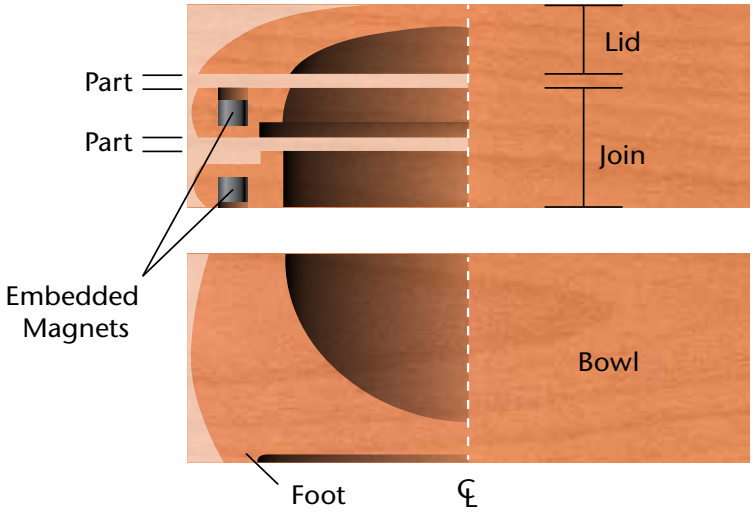


Figure 1. One disk makes the box bowl, the other contains the lid and join pieces. The magnets lurk in holes bored in the join piece, which is glued to the lid and body, then parted so the magnets can do their job.

Illustration: Robin Springett

board with abrasive adhered to it) at the lathe (*Photo 6*). Flatten the bottom of the lid piece, both sides of the join section, and the top of the bowl piece. Flatten all four gluing surfaces with care, as it's easy to lose too much wood in the process. It helps to pre-excavate the mating faces so there are no center nubs. If the join piece ends up under 1⅛" thick, you might save the day by installing magnets in the bowl section and covering them with a thinner join piece.

Join section

You can install four single magnets in the join section, two for the body and two for the lid, or, for more pull, pairs of magnets, as shown in the photos. To lay out the position of the magnet holes, draw a diameter across the disk face and a circle ⅜" from the edge of the disk. Extend the diameter onto the edges of the disk, and do the same layout on the opposite side. Locate the centers of the ¼" magnet holes on the circle and equidistant from the centerline. This leaves ¼" of wood for shaping the outside of the box at the join (*Figure 2*). Finally, punch with an awl to locate the drill centers (*Photo 7*). Repeat the exact layout on the opposite side of the blank.

Bore for the magnets with a ¼" flat-bottom bit (*Photo 8*). As shown in *Figure 2*, bore exactly ⅜" deep on the lid side and 9/32" (7mm) on the bowl side. The holes should line up from one side of the disk to the other, so transferring the layout accurately is important. Measure their depth and take care to get it right.

Magnet management

These little ultra-strong magnets jump around and stick to each other, as well as to any nearby iron. To avoid confusing the polarity, stack the magnets and mark the same pole on all of them. Mark the top face of the top magnet, slide it off, and park it on a steel ruler. Mark the next, and so on (*Photo 9*). I use a permanent marker, but you could just scratch an X.

Install the magnets on one side of the join disk first. This makes it easy to get the polarity right on the other side because they'll be attracted to the first set and will be drawn into place. To make a lid that grabs either way around, install the magnets the same way up on the first side of the disk and opposite on the other (opposite polarities attract); for a lid that pops off when it's reversed, install them oppositely so the polarities will match and repel in the rotated position (*Figure 3*). It's easy to get confused, so before committing to glue, park the magnets flanking the join section itself, stacked ▸

Part join section from lid

Before parting the join section from the box lid, draw a witness triangle, or reference lines, for future reassembly. A thin parting tool minimizes kerf waste and thus disruption of grain flow. Part the join piece so it is 1¼" thick.

Flatten the parts

Flatten the disks for sound glue joints; the pieces will be glued back together after you embed the magnets. I use a sharp scraper for flattening—for the smoothest cut, lock your elbows to your ribs and sway on the balls of your feet. Sight a straightedge against the light to see hills and valleys.

Hollow the center so there is no nub, and flatten the disk on the lathe using abrasive spray-glued or taped to a flat board.

Mark and bore magnet holes in join section

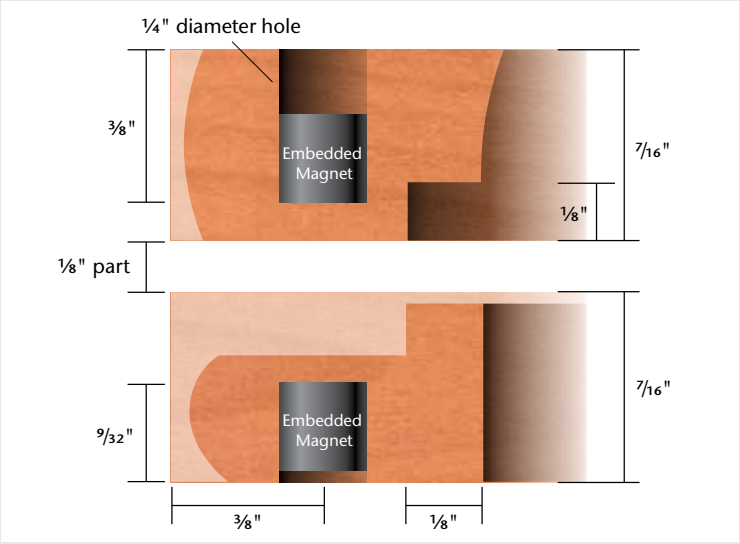


Figure 2. Join details, showing critical dimensions for magnets, tenon, and recess. Tenon atop bowl fits rebate in lid.

Illustration: Robin Springett

Draw a diameter across the join section. Then lay out the magnet centers and center-punch for drilling. Transfer the layout to the opposite side of the join piece for perfectly aligned holes.

Drill ⅜" deep on the lid side of the join section and 9/32" on the bowl side.

Magnet management

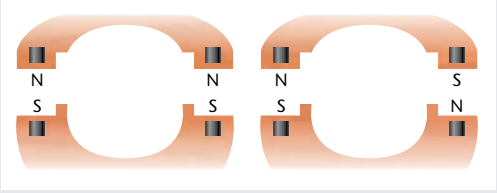


Figure 3. Magnet polarity. The same polarity on the lid side will maintain attraction when rotated 180° (left). Opposite polarity will repel when rotated (right) and push the lid off.

Illustration: Robin Springett

To help keep track of polarity, mark the same pole of all the magnets. Park them in pairs on a steel ruler.

Glue in the magnets one at a time. Drip CA glue into a hole, check polarity, and insert the magnet. Hold it down with a sharp stick, and hit with accelerator.

the way you want them to end up, and far enough apart to not jump together.

Keep the magnets under control by gluing them one at a time. Squeeze a drop of CA glue into the hole, slide the magnet into place, and use a sharp stick or a bamboo skewer to press it down while you apply a tiny squirt of CA accelerator (*Photo 10*). Verify the polarity of the next magnet, and repeat. After you have finished that, keep the disk flat by carefully hand-sanding any drools of CA glue.

Other polarity layouts will work, and some have interesting effects; I found it worthwhile to make a test rig with twenty-four sets of holes.

Making the box

Realign the witness marks to reassemble the three sections into a single cylinder of wood. Using regular wood glue, assemble and clamp the pieces together, with a pressure assist from the lathe's tailstock (*Photo 11*). Wet glue is slippery and there is not much extra wood, so go for low aggravation and glue up the blank in two stages, not all at once.

After the glue has set, remount the blank and true it up. I like to make the surfaces really smooth and clean now and keep them that way, sharpening my tools often. This minimizes torn grain and tedious sanding later. And from here on, I use a strip of rubbery plastic to protect the work from the chuck jaws (visible in *Photo 13*).

Part the blank in the center of the join piece (*Photo 12*) and flatten carefully, leaving at least 7/16" (11mm) of the disk and better yet ½" (13mm) on either side for the magnets plus a tenon with matching rebate. If you have allowed for some extra wood in the join section, leave more of it on the box body when parting, rather than on the lid, as it will give you a second chance when fine-tuning the fit.

Now you have blanks for a box lid and body with matching magnets embedded in each. Turn the box as you normally would. But before each step, use extra magnets on the outside of the wood to confirm and mark the location of the hidden magnets inside (*Photo 13*). It is regrettably easy to cut too close—you'll hear the click and see the shine.

I apply finish as I go with a brushing lacquer, the first coat being applied and the excess wiped off immediately after sanding (*Photo 14*).

Final thoughts

When I started making these boxes, I lost about half the blanks by turning into the embedded magnets—highly maddening. Magnet placement was imprecise, as were my lid-to-bowl joints. So I dropped back to making simple, flat boxes without magnets. I made more than thirty before returning to magnetic boxes, which required me to kick up my blank-prep and turning skills. With care and attention to detail, I've taken care of hostess and holiday gifts for yet another year. ■

John Kelsey is a member of the Lancaster Area Woodturners, an AAW chapter.

Assemble disks into a box blank

Glue the three sections together, using clamps along with the tailstock ram. It's less risky to glue two sections first, then the third, to avoid slippage during glue-up. Note that the walnut disk is a clamping pad and not part of the box blank.

Turn the box

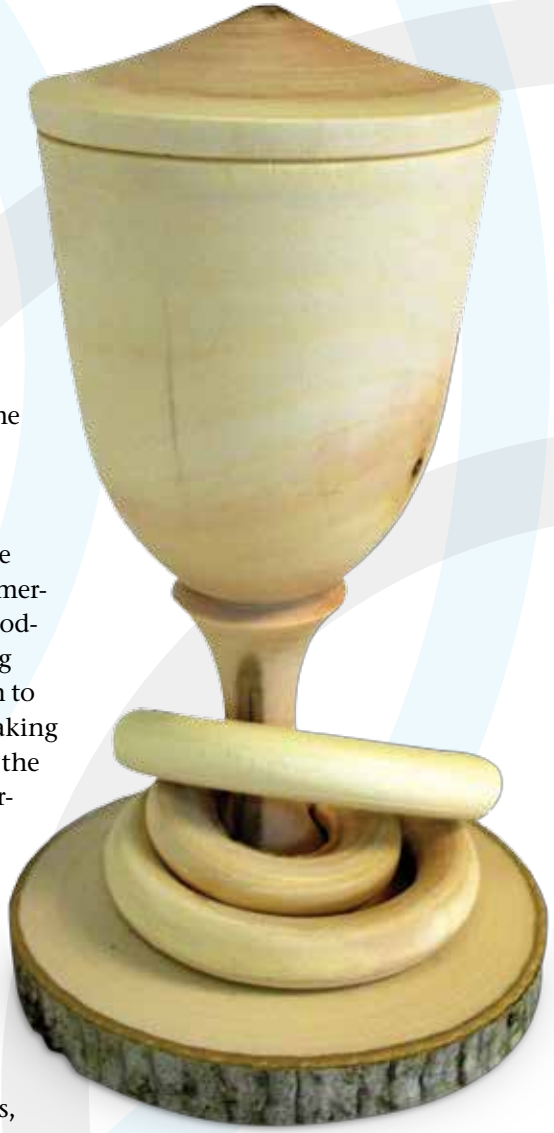
True up the assembled blank and turn the box as you normally would. Part the lid from the body between the magnets in the middle of the join section, leaving about ½" of wood on either side.

At each step, use extra magnets to confirm the location of the hidden magnets, so you don't turn into them.

Sand and finish each surface as you go.

Captive Rings ON A GOBLET BOX

Rick Rich
Photos by Daniel Massie.



Few woodturning techniques give rise to such admiration and wonder as rings of wood captured around a piece. People study them closely, then ask how the rings got there. Some decide the rings had to have been made, divided, then glued back together into their present place. How else could it have been done?

I don't recall when I turned my first captive-ring piece, but making them seems much easier now. Some of my first attempts, which were baby rattles, have been saved by family members, and they certainly inspire me to do better. As with most projects done repeatedly, the completion time decreases and the finished products get smoother and better proportioned.

My vases, boxes, and rattles with captive rings are quite simple and utilitarian in design. With proper tool control, this small goblet-style box made from a pruned branch (in this case, western big leaf maple) is well within the ability of most woodturners. It involves basic spindle turning and a touch of endgrain hollowing, with the added twist of rings about the stem and a natural-edge base. It's small, makes a nice gift, and is an excellent project for enhancing your skills.

The wood I prefer turning is freshly cut, usually a branch trimmed only a few hours prior. With correct tool use, green wood cuts nice and clean, including the interior, which I hollow with a scraper. Because sanding green wood seems to clog the abrasive quickly, I tend not to sand my work much. The upside to limited sanding is that it forces me to maintain proper technique.

The captive-ring tool

Most of the captive rings I make are completed with a specialized commercial tool, but I know that many woodturners are quite capable of making such a tool themselves. In addition to cost savings, another benefit of making your own tool is having control of the ring size, as commercial tools determine and limit the ring size. I do have a somewhat rough looking ring tool I made myself, but it requires much more concentration to keep the rings round than the commercial tool, so I gravitate to the easier store-bought tool most often.

The ring tool I use has two bevels, one on each face of the blade, and makes scraping cuts on both sides to form the captive ring (*Photo 1*). When sharpening the tool, I've found that a quick honing of both bevels with a small diamond hone makes for quicker and cleaner cuts. My current tool is several years old and stays very sharp just with honing. A grinder isn't necessary and might change the tool's shape.

Remember, a captive-ring tool is only a scraper. The ring is made by first turning an appropriate sized bead and then using the ring tool to undercut the bottom of the bead. The most important part is keeping the bead shape on the bottom side, making a perfectly round ring. It's this undercutting with the ring tool that can cause tearout, most notably on the sides of the ring at the endgrain and especially with a dull tool. When I use a freshly honed tool and moderate cutting speed and pressure, I usually get good results. It's when I'm hurrying and pushing the tool too hard that I get noticeable tearout.

Another consideration that deserves attention is tool clearance. The flat of the tool behind the bevel should stay flat on the toolrest. Having the toolrest too close can result in the long bevel itself resting on the toolrest and coming in at an angle. This leads to odd-shaped rings because the underside is not cut in a uniform bead. You must also remove enough material

next to the bead to provide tool clearance for sideways movement when cutting the underside of the bead.

Form the box lid

This goblet-style box begins with a freshly cut branch about 2½" (6cm) in diameter and 6" (15cm) long. Place the blank between centers and turn a tenon on the tailstock end. I also remove the majority of bark from the blank, leaving a band about an inch wide above the tenon for a natural-edge base (*Photo 2*). I usually use my skew for this unless the blank is very irregular, in which case I use a spindle-roughing gouge.

Flip the blank around, mount it in a chuck, and retrue it. Now the goal is to make the lid of the box. At the tailstock end, cut a tenon on either side of what will be the lid. On the very end, I make a narrower tenon with a skew peeling cut to about two-thirds the diameter of the box. This is at the top of the lid and will be parted off after using it to jam-chuck the lid while cleaning up the bottom. Using a parting tool, I cut a second, wider tenon to the inside of the lid, leaving enough material between the tenons for the lid itself. This tenon is part of the finished lid and will actually fit in the box, so cut it very close to its final diameter (*Photo 3*). The inner tenon should be about ⅜" (10mm) long, which will allow you to part it off and still have a final tenon length of 3/16" (5mm).

Using the smaller outer tenon as a guide, I use my parting tool to make a jam chuck of the blank still mounted in the chuck. Sneak up to the correct size of the mortise until the small tenon fits by friction (*Photo 4*). At times I have been overzealous and cut the hole a bit too big. No problem. A piece or two of paper towel can make up the difference so you still get a friction fit. Once this is made and it all fits perfectly, I can clean up what will be the inside of the lid with a spindle gouge (*Photo 5*).

Ring tool

Commercial ⅜" ring tool and a diamond hone to keep it sharp. Keep both sides honed, but don't put it to a grinder.

Prepare the blank

Turn a section of branch wood to a cylinder, leaving a band of bark for the base. Form a tenon at the tailstock end.

Create the lid

Flip the blank and grab the tenon in a chuck. Define the lid by turning a tenon on either side of it, with the outermost tenon narrower than the inner one. Part off this lid section.

Cut a mortise in the remaining blank to use as a jam chuck for the lid. Insert the narrow tenon at the top of the lid. You can now clean up the inside and bottom of the lid, including the tenon. A spindle gouge works well for the inside of the lid, but use light cuts so you don't dislodge it.

Be careful here and use light cuts, so as not to dislodge the lid from the jam chuck. The sides of the bottom tenon, which should not be so torn anyway, can be smoothed further with a very delicate negative rake scraping with the skew. Cutting this cleanly with a gouge is possible, but even a small catch can ruin it, so I have resorted to scraping ever so lightly. This cleaned-up tenon will then fit into the body of the box.

Now reverse the lid to form what will be its top side. Now the mortise you made to hold the smaller tenon can be enlarged slightly to hold the finished bottom tenon. This mortise will be the final size of the interior of the box, so make sure it is cut cleanly. In addition, with too wide a tenon or too thin a box wall, you can crack the box if the jam fit is too tight. Sneak up on it with light cuts, and use light pressure to check the fit. Once the lid is properly fitted ▸

Fit the lid and shape

Reverse the lid in the jam chuck, expanding the mortise, and cut to final size and shape. True the lid and upper edge of the blank. A small V-groove helps to define the transition.

into the blank, turn the top of the lid. A small detail at the junction helps, so I add a small V-groove between the lid and blank body. I also true the lid and box about a quarter-inch down the blank body to the same size (*Photo 6*). Remember that this is the finished lip of the box, so avoid cutting it too thin.

Hollow and shape the box

Remove the finished lid. Hollow the box to depth by first drilling a hole to a depth of about 2¼" (6cm). I find it convenient to drill with a spindle gouge, and keeping the flute pointed at about 10 or 11 o'clock makes for easier drilling (*Photo 7*). Once the depth hole is drilled, hollow and clean out the interior with a scraper (*Photo 8*). Remember, you are committed to an interior diameter by your lid, and the exterior will follow the interior, so whatever shape you make the inside, the outside walls will reflect that.

When you are satisfied with the inside, use a pencil as a depth gauge and transfer the inside depth to a pencil mark around the outside. Now shape the outside profile. I find a skew gives the cleanest cut possible (*Photo 9*). I use my fingers as a wall-thickness gauge, but only when the lathe is stopped. I want consistent wall thickness now to prevent splitting later.

Add captive rings

For this project, I add two captive rings. Regardless of the number of rings, the process is the same. By only cutting the outside contour to the bottom of the box, I leave quite a bit of untouched wood at the base. Since I use a ⅜" captive-ring tool, I first need a ⅜" bead, which I turn with a skew. I use the wood closest to the base of the box, so I have enough material at the base end for another ring (*Photo 10*). Make sure there is clearance on both sides of the beads for movement of the captive-ring tool. Usually about ¼" (6mm) is sufficient for each bead.

Place the captive-ring tool flat on the toolrest positioned at the top of the bead and rotate it sideways around the bead to cut along the side and bottom of the bead (*Photo 11*). Ensure that the top of the bead stays inside the captive-ring tool so the undercutting part of the tool maintains a consistent bead shape along the inside. Turn the captive-ring tool over and do the same with the other side. If I have cut deeply enough on one side with the tool, the ring will start to spin free as I complete the cut on the other side. Once free, the ring can be pushed to the side (*Photo 12*). Making a second ring is just the same. Begin with a well-cut bead and then shape the underside with the captive-ring tool. When both rings are spinning freely, the more technical part begins (*Photo 13*).

Turn the stem and base

The two captive rings must be pushed to one side or the other to allow access for turning the goblet-style stem. Larger rings can be more easily pushed farther away with a finger or the side of a tool.

Hollow and shape the box

(7) Drill out the blank to the proper depth prior to hollowing. I use a spindle gouge with the flute facing 10 o'clock or so.

(8) Hollow and shape the box with a scraper. The internal contour will determine the outside contour. Don't disturb the lip or you will forfeit all the work you just put into fitting the lid.

(9) Shape the outside profile. A skew leaves a clean, refined surface.

I have found that the rings spin and dance around but don't get in the way so much that the stem can't be shaped and turned. If the rings are too distracting, a bit of masking tape will hold them securely to the side. Start on one side, pushing the rings to the other side, turn a bit, move one ring to the other side allowing a bit more access to the stem, turn some more, and repeat for the other side. I continue this waltz with the rings until the bottom of the box, the stem and top of the base are turned (*Photo 14*).

I like a natural-edge base. For design harmony, leave an edge of bark about the same width as the visible part of the lid above the box body. I make a V-groove with either the spindle gouge or skew to cut the bark line clean (*Photo 15*). Because the bark is somewhat irregular, undercutting slightly will give a more stable foot at the bottom of the base. Then I come in with a parting tool at an angle to undercut the base. Use the parting tool to make some clearance for the final parting cut. Holding the box loosely with my right hand, I catch the turning once I cut it free with the parting tool in my left hand (*Photo 16*).

If you are uncomfortable using one hand, place a small box with shavings underneath, where the box will fall free, or have someone assist you and catch it. Another method is to stop the lathe, leaving a small spigot attached, and cut it free with a handsaw.

Recently, I was the demonstrator for our monthly club meeting and made one of these little boxes. The demonstration went well and many members, some self-professed beginners, expressed interest and confidence in making one. For how seemingly complex the piece is, once it is broken down into small steps, it is quite achievable for most turners. ■

Rick Rich is a part-time woodturner in Washington State. He is a member of the AAW, the Cascade Woodturners in Portland, Oregon, and a founding member of the Southwest Washington Woodturners in Vancouver, Washington.

Form beads

Each ring starts as a bead. Use the surfaced but otherwise uncut wood above the bark band. Form your first bead as close to the box end as you can. Be sure to allow clearance on either side of the bead for the ring tool. Cut any additional beads in the same manner.

Free the rings

Undercut the bead using the captive ring tool from one side. Keep the tool level and flat on the toolrest, and make sure the bead stays within the tool to ensure the finished ring is circular. Finish the ring by flipping the tool and cutting under from the other side until it comes free.

Push the first ring to the side and repeat the process to form any additional rings. Now you are ready to shape the goblet's stem within the rings.

Finish the stem and base

To finish the stem, work sequentially. One and then the other ring will need to be pushed to one side and then the other to allow access for cutting. You can also tape the loose rings to the goblet so they won't bounce around.

Cut the bark line clean with a spindle gouge or skew. Undercut slightly for a more stable base.

Undercut and part off with a parting tool, while supporting the work with your free hand.

TURN A SUNCATCHER ORNAMENT

Stephen Hatcher

An ornament of turned wood and epoxy with decorative materials embedded lets the sun shine through.

A simple turned, lens-shaped ornament makes a great small gift. I make these in the fall for upcoming holiday parties and gift exchanges. These ornaments are easy to make yet quite attractive and fun both for the maker and recipient. The basic idea is this: turn a simple receptacle in a disc, fill the recess with a sandwich of epoxy and light-catching filler, then, after the epoxy cures, turn both sides to shape and expose a window of clear epoxy.

Turn a receptacle

I like to use maple boards with some figure and/or spalting. Any scraps will do, but waxy woods should be avoided, as the epoxy casting may not adhere well to the wood. Mark and cut out the ornament blanks, which should be at least ½" (13mm) thick and 3" (8cm) in diameter (*Photo 1*).

To start, mount the workpiece and turn a small tenon on one side. I jam-chuck the blank between a chuck and the live center of the tailstock. Alternatively, you could mount the blank using a drive spur and live center, a small faceplate with screws or double-sided tape, or a vacuum chuck. Remove the workpiece and use the tenon to remount it in a four-jaw chuck.

Figure 1 shows a cross section of the turning as I make it. When turning the recess, keep the sides and bottom roughly square, at least until you gain a little experience in predicting the final shape. I use a gouge to remove most of the material and follow with a square-nose scraper to clean up the corners. The final profile will be lens-shaped, so the recess corners do not need to be exact and the bottom does not need to be truly flat. A little tearout on the bottom does not matter, as that wood will be turned away later, but try to keep the sides free of large pits. Don't worry about any sanding. Do keep the depth of the recesses on multiple ornaments the same because you need to know this depth when shaping the pieces.

Paint and pour

After turning the recess, paint the interior sides. You do not need to paint the bottom, though it won't hurt to get paint on that surface (*Photo 2*). I use acrylic airbrush paint, applied with a brush because it is what I have and it works fine. On porous woods, the paint may soak in and stain the wood pores, so do a test piece first. If it does stain, seal the wood with diluted epoxy. Other sealers may work, like shellac or sanding sealer, but I have not needed to worry about it as maple has a closed-cell grain structure and the color does not tend to soak in too much. Test your woods, paint, and sealers first. The color you choose for the inside walls will be visible when the ornament is finished, so choose a color that will complement your choice of fill material.

Fill the recess about one-half full with epoxy (*Photo 3*). I use AeroMarine 300/21, as it is thin and clear and creates very few bubbles. West System 105/207 will work, as well as Alumilite, but I prefer AeroMarine because I have a lot of experience with it working well. If the epoxy has bubbles on the top surface, pop them using a butane torch or heat gun. Do not overheat the pieces, as air will bubble out of the wood capillaries into the epoxy and potentially ruin your pour. Heat will also cause the epoxy to cure faster and getting bubbles out will be difficult or impossible. I prefer a quick pass with a butane flame and all the surface bubbles disappear. So practice first. Once you have half-filled the receptacle and the bubbles are eliminated, let the pieces sit in a dust-free area.

After the pieces sit for four to eight hours, the epoxy will stiffen up. At

this time, add a layer of something sparkly or colorful. I have used mica, auto-paint additives, mineral crystals, seashell pieces, and powdered metals. These all work well, but mica is my favorite because it is reflective, translucent, and available in many colors. What does not work well are bits of plants like flowers and cedar boughs, as they float to the top of the epoxy when the second half of the pour is applied. Experiment with different materials. Items that float can be epoxied in with a thin pour that will be allowed to firm up before the next step.

When the decorative materials are placed, pour more epoxy to fill the recess completely. Sometimes the materials will shift during the second pour, but you can straighten them using a toothpick or equivalent (*Photo 4*). If a few pieces float to the top of this second pour, don't worry—they will be sanded off later.

Leave the cast pieces to cure fully, about a week. It will be easier to turn and sand the epoxy when it is fully cured. Epoxy that is partly cured will not take a good finish.

Turn the front face

Remount the ornament blank by holding the tenon in a four-jaw chuck. Turn the face of the ornament using a regular gouge on the wood ▶

Materials and dimensions

I prefer to lay out and cut several ornament blanks to have plenty on hand for the holidays.

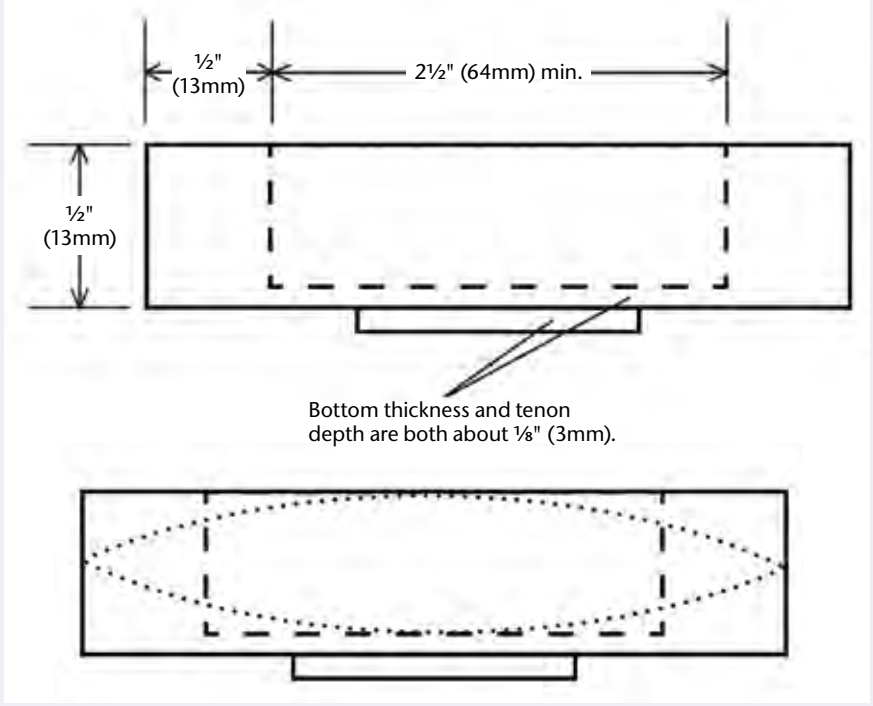
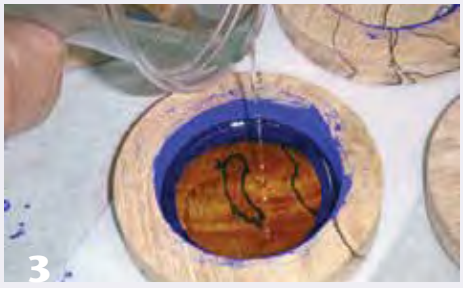


Figure 1. Cross section of ornament blank showing lens-shaped profile (dotted lines).

Paint, pour, fill

Paint the inside walls of the recess. Any paint on the recess bottom will be turned away later.



Pour epoxy into the recess until it is half-full.

Add decorative elements such as mica, then complete the epoxy pour to the top, trapping the sparkly materials inside what will become a translucent window. Reposition errant pieces with a small pick or brush.

and a small negative-rake scraper on the epoxy. To learn more about using negative-rake scrapers, see Journal Archive Connection *(at right)*. If you try to turn the cured epoxy with a gouge or regular scraper, it will chip.

First, remove wood using a gouge to one-half the depth of the recess (remembering that there is about ⅛", or 3mm, of wood in the bottom). Follow with the negative-rake scraper on the epoxy section. The completed rough profile is convex in this example but can have other profiles according to your own design (*Photos 5–7*).

Turning epoxy with a negative-rake scraper can get messy, but it is fun. I turn from the center to the edge with light cuts. Though *Figure 1* shows the ornament having a double-convex, or lens, shape, you can vary the profile greatly. I have made ripples like a stone in water and it looks great, but it is a little harder to sand. For Christmas ornaments, making the epoxy concave will make them lighter and also looks great.

After turning, sand the face to 1,000-plus grit abrasive. I use a soft, 5" (13cm) sanding pad. (Handy Tip: 5" sanding discs are less expensive than many 3", or 8cm, sanding discs and after wearing out can be cut down to 3" and used at the smaller size.) For more complicated surfaces like the rippled effect I mentioned, I use hand-held abrasives. The epoxy sands easily, so power sanding is not essential.

I use a small, diamond-tip parting tool to add detail lines to the face and a chatter tool to add a decorative band on the epoxy (*Photo 8*).

Turn the opposite side

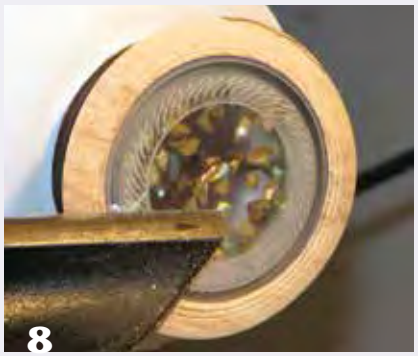
Reverse-mount the ornament to complete the opposite side. I use the live center contact mark to align the piece to a vacuum chuck (*Photo 9*). If

Turn one face

5 Turn away wood with a gouge, beginning to shape the convex face to half the depth of the recess.

6 Use a negative-rake scraper to turn the epoxy window. Don't worry, it will be well worth the stringy mess.

7 The finished convex shape of one side of the ornament.



8 Sand smooth, then add decorative lines and chatterwork.

you don't have a vacuum chuck, you can reverse the ornament and place it against a pad, using the live center to position it (*Photo 10*). An internal jam chuck will not work because the edge of the ornament must be accessible during turning and sanding. My pad is a piece of rubber floor matting, but foam or a folded rag will also work. It just needs to securely hold the work when lightly compressed by the tailstock.

With the workpiece remounted, turn, sand, and accent the back face, just as you did the first side. On this side, you will be turning away the tenon and through the bottom layer of wood to expose the epoxy. First make a gouge cut on the wood, then scrape the epoxy, sand, and add the chatterwork.

If you have remounted the workpiece using the live center (as shown in *Photo 11*), a small nub will remain after turning. You can remove this nub using a small, firm sanding attachment chucked in a drill press. This step is a little awkward at first, but it is a technique I use in making my more complicated pieces like teapots—it gets easier with practice. Carefully remove most of the wood with 80-grit abrasive, then jump to 180 grit, and finally 400. The idea is to use the higher grits to remove the last of the wood so the sanding is minimally aggressive. Move the work smoothly under the sanding pad and you can get excellent results (*Photo 12*). Watch your fingers, as the abrasive edge will give a nasty cut.

On the flip side

9 Reverse-mount the ornament so you can turn the opposite side. I like to do this with my vacuum chuck, using the live center for alignment.

10 An alternative to the vacuum chuck: press the workpiece with the tailstock live center against a soft pad held in a chuck.

11 Turn away the tenon and bottom layer of wood. With the tailstock in place, a nub will remain that cannot be turned away. Here, I left a large nub, but it can be much smaller if you use a cone on the live center.

12 Sand away the nub using a sanding attachment chucked in a drill press.

Add color and finish

To give the wood and chatterwork some color, I airbrush on a TransTint® dye, then wipe off the excess. You can use a rag as well. The dye will not color the epoxy but it will adhere in the chatterwork and gives the piece a nice accent. Then I airbrush brass powder or Pearl Ex powder pigments mixed with wax-free shellac over the color for a bit of sparkle. If you don't have a vacuum chuck, you can complete this step by freestyle spraying the edge. It actually looks really good when the airbrushed accents are uneven and of mixed colors.

For a final finish, I use lacquer, but any number of options will work, including a clear acrylic finish in an aerosol can. With this type of finish, use a light coat and stop there. More coats cause a buildup of orange-peel surface that distracts from the beauty of the ornament. Experiment with your favorite finish.

Add a ribbon to hang the ornament, and you've got a unique, light-dazzling gift to share with someone special. ■

Stephen Hatcher has been an avid woodturner since 1998. You can learn more about his artwork and techniques at stephenhatcher.com.

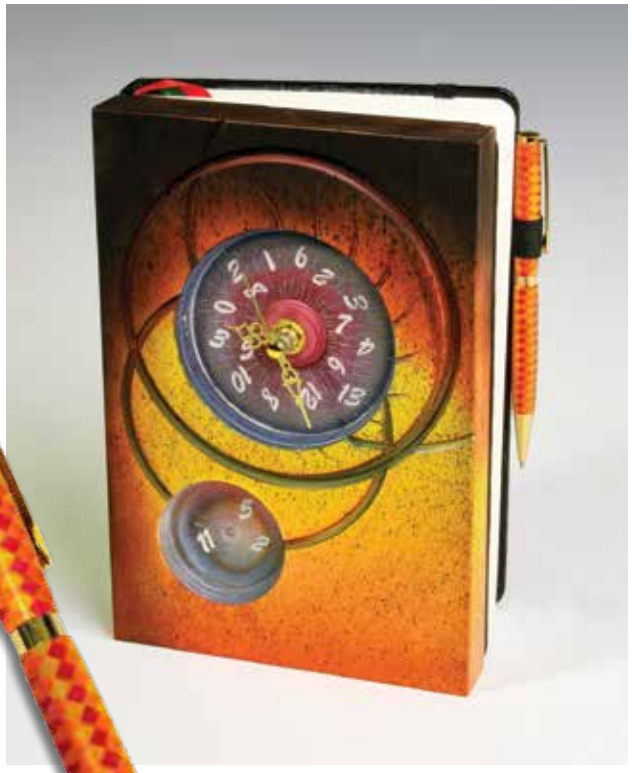
Segmented Woodturners Chapter Challenge: Pens

It is uncommon to see pens created by members of the Segmented Woodturners, an online chapter of the AAW, so we decided to make pens our spring 2025 chapter challenge. The members rose to the challenge and created the wide range of innovative designs, seen here.

The goal of the periodic chapter challenge is to make an item that is out of our comfort zone, try a new technique, and most important have some fun. The photos of each entry are then posted in the chapter photo gallery so members can ask questions about the techniques used and hopefully become inspired to try something similar. Pushing ourselves and sharing what we make is a great way to improve not only our skills but those of our woodturning friends.

If you'd like to learn more about segmenting and/or join us for our next chapter challenge, visit segmentedwoodturners.org.

—Al Miotke, President, Segmented Woodturners



Steve Bonny, *A Book Holds What Time Lets Go*, Book cover: Baltic birch, spirit stains, liming wax; Pen (twice-cut lamination): dyed stabilized poplar, cyanoacrylate (CA) finish, Slimline pen kit

This project combines the Segmented Woodturners Chapter pen challenge with a Corridor Woodturners turned book cover challenge. The book cover was inspired by a Nick Agar/David Springett project.

Dennis Strenge, *Periwinkle Pen*, Maple, yellowheart, bloodwood, black veneer

Doug Drury, *Double Celtic Knot Pen*, Padauk, green Dymondwood, maple, walnut

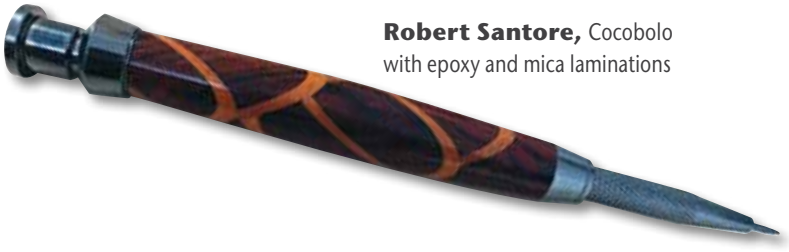
Steve Bonny,
Pentastrophe,
Bloodwood, maple,
mahogany, lacquer

Inspired by the work
of Jerry Bennett.

Mike Selser, *Spiral Pen*, Maple, American sycamore, jatoba

Charles Gabriel,
Yellowheart, Peruvian walnut,
black veneer, CA finish

Robert Santore, Cocobolo
with epoxy and mica laminations



Al Miotke, *Scalloped Pen*, Maple,
bubinga, black veneer

Russ Braun, Wenge, maple

Doug Drury, Maple, red oak, dyed birch veneer