Wood Turners Worldwide

worldwidewoodturners.org and the art of making shavings

Newsletter

JANUARY 1, 2025 NEW YEAR, NEW PROJECTS! VOLUME 2 NUMBER 1

2024 Year in Review

A word from our founder

By Capt. Eddie Castelin

As we end a great year of 2024, I'm asked to make some comments regarding our progress. Worldwide Woodturners has come a long way in the past five years; much further than any of us would've imagined when this club was proposed.

For instance, this newsletter is a World-class publication, designed, edited, and produced, solely by Woodturners. There are no promotions, advertisements, subscriptions or requirements. This is for Woodturners; just Woodturners.

The staff of worldwide Woodturners is comprised of Woodturners, all volunteers. With major efforts each week to assure that you get the best of our art in every program, but the newsletter is only one facet of our club. We also host the finest open website on Woodturning in the world. worldwide woodturners.org is the depot, the library, the resource, the archive, to go to spot for all the meetings programs, chat, and photos of our members and their work.

As we continue to scale the mountain of Woodturning, we discovered that there's great obstacle ahead of us, a symposium. In September 2026, we will host our first ever Level-up, a gathering of woodturners unlike any other in the world.

Level-up is a four day program with sessions geared towards turning, technique and style with demonstrations in pod groups with multiple lathes and multiple coaches.

Level-up is for all levels of Woodturners no matter what your ambition or what your skill, this program is for you. We're not just talking shavings on the floor, level-up will cover it all, from the go button to the final decoration and finish.

I often speak of this club when I'm in conversation with the folks in my therapy sessions. They get to see me swell with pride, almost glow, when I shine on about the amount of energy, honesty, and fortitude our members have for a group of people with the common bond of Woodturning. We founded worldwide Woodturners as a club not bounded by silly rules, strict requirements, or membership dues, and it works.

I find it easy to comment on success. Unfortunately ,I can't predict our future. Considering the strength and determination of our membership, nothing is impossible. Hold on 2025, this is going to be interesting.

Unearthing Hidden Treasures: Finding free wood for woodturning

By Heather A. Budarick

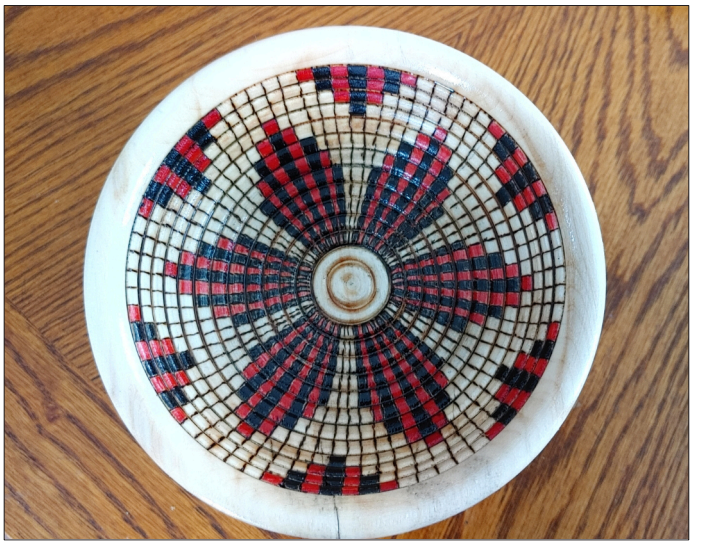
Woodturning, the ancient art of transforming raw wood into beautiful, functional pieces, is a craft that often requires an ample supply of quality wood. However, acquiring wood doesn't need to burn a hole in your pocket. There are various places where you can find free wood for woodturning, turning nature's leftovers into your next masterpiece.

1. Fallen Trees and Branches
Nature can be a generous provider. After storms or windy days, local parks, nature reserves, or even your own backyard can yield fallen trees or branches. Always obtain permission before collecting wood, and ensure you have the proper safety gear for handling potentially unstable timber.

2. Construction Sites
Construction sites are often rich resources of discarded wood. Contact local builders or contractors and inquire about the availability of scrap wood. Remember to ask for permission and make safety a priority when collecting materials from these sites.

3. Tree Removal Services
Collaborating with tree removal services can be mutually beneficial. These companies often have to dispose of wood after cutting down trees. Reach out to them, offering to take some of the wood off their hands. Make sure to follow safety protocols and get proper permission.

4. Local Sawmills and Woodworking Shops
Local sawmills and woodworking shops generate cut offs and discard pieces regularly. Establish good relationships with these businesses and inquire about obtaining their surplus wood. Sometimes, they might even be willing to part with it for free or at a minimal cost.



Heather Budarick

5. Community Resources
Explore local community resources like recycling centers, yard waste disposal sites, or community cleanup events. These places often have wood that can be salvaged for woodturning.

6. Fallen Trees Due to Natural Causes
Keep an eye out for natural events like wind storms, hurricanes, or floods that might lead to fallen trees. Always prioritize safety and legality when collecting wood in the aftermath of such events.

7. Online Platforms and Forums
The Internet has made it easier than ever to connect with fellow woodturning enthusiasts. Explorer online platforms and forums dedicated to woodworking, where people often give away or sell wood at affordable prices. Websites and social media groups can be a treasure trove for finding woodturning materials.

In the world of woodturning, creativity knows no bounds. With a bit of resourcefulness and an eye for opportunity, you can unearth hidden treasures in unexpected places. This list provides a road map for finding free wood for woodturning, encouraging you to explore these avenues and turn nature’s discards into your next turning masterpiece. Happy hunting!

Ingenious solution to short clearance between centers

Club member Jayson Cote didn't let a lack of clearance between centers deter him from finding a creative solution, fulfilling his desire to turn larger pieces.

Jayson used a 36" tall pillar of 6x6" Douglas Fir standing on end, and attached a plank to the bottom to stand on for stability.

"The upper end has my spare banjo solidly attached via a wooden clamp screwed to the top of the 6x6 and through the banjo (pictured right)," said Jayson.

With a solid stand at this height, Jayson was able to use his tool rests, adjusting the height as needed in normal operation.

"I did replace the normal fastening bolt from my banjo with a capscrew that projects less toward the workpiece," Jayson said.

All attachments were made using 3" wood screws.

"This allows me to achieve diameters much larger than my between centers capacity," Jayson said.

Above from right to left: cherry plate 10-1/2" (maxed out lathe capacity); 14" White Pine, and 18" Ponderosa Pine platters, both turned outboard.

Jayson Cote

Here you can see the banjo attached to the top of a 6x6" Douglas Fir pillar, giving Jayson a solid tool rest in order to turn this 14" White Pine platter.

Heather Budarick

Red Oak bowl with a beaded band insert.

Spiritual meanings of oak wood throughout the world

By Heather Budarick

Oak is often seen as a symbol of endurance and survival in Native American cultures. The tree's deep roots and ability to withstand harsh conditions mirror the resilience and adaptability required in life's journeys. Some tribes also associate oak with wisdom, viewing it as a teacher that imparts valuable lessons.

In Norse mythology, the oak is associated with Thor, the god of thunder. Vikings considered oak to be a protective wood, using it to construct their longships and shields. The sturdiness of oak represented not only physical strength, but also spiritual strength in the face of challenges.

In Celtic traditions, the oak is revered as a symbol of strength, wisdom, and connection to the divine. Druids, the ancient Celtic priests, believed the oak trees were portals to other realms, enhancing their spiritual practices. The wood from these majestic trees was often used to craft sacred objects, linking the tangible with the mystical.

In modern times, appreciation for Oak wood has not diminished. Many people still seek out oak for its durability and timeless beauty. Understanding the spiritual meaning behind oak adds a deeper layer of meaning to this remarkable material. Whether used in ancient rituals, as a symbol of strength and mythologies, or turned into an heirloom salad bowl, oak wood transcends its physical form, carrying with it a rich tapestry of spiritual meanings woven by diverse cultures across the ages.

Heart shaped shallow bowls

Story and photos by Rita Duxbury

1. First you need a blank of wood about 6″x 6″ x 1″ thick.

2. Draw a heart or whatever shape you would like to have on a heavy piece of 6″x 6″ paper and cut it out for a template. Remember long thin or pointed protrusions will be hard to turn and can break off.

3. Place the template on the blank of wood and trace around the outside.

4. Now cut out the heart shape on a bandsaw or scroll saw.

5. Find the center and mark an X. This is a close approximation.

6. Now mount the blank between centers with the top towards the tailstock. Move the centers as required to help balance the piece.

7. Turn about a 2″ recess ¼″ deep.

8. Reverse the piece and mount it on a chuck by expanding into this recess.

9. Now cut a 2″ recess into the bowl bottom. Then leave about a 3/16″ flat surface and with light cuts shape the bowl bottom upward to about 1/4″ thick at the outer edges. Light push cuts are recommended.

10. Carefully sand the bottom surfaces. Hand sanding is recommended.

11. Turn the piece around and similarly chuck up on the bottom.

12. Turn the top of the bowl. Again light push cuts are recommended.

13. Sand all surfaces. Hand sanding is recommended and a must around the thin outer edges.

14. Remove from the lathe and finish as desired.

Wood Turners Worldwide

Capt. Eddie Castelin - Founder
Dane Chandler - Administrator
David Rhodes - Webmaster
Joaquin Juatai - Editor

A.K.A. Box Elder

Story and photos by Heather Budarick

Manitoba Maple, scientifically known as Acer negundo, is a versatile hardwood with various cultural applications. Indigenous communities and woodworking enthusiasts alike appreciate the unique qualities of Manitoba Maple wood for its cultural significance and practical uses.

In Indigenous cultures, the Manitoba Maple holds spiritual and symbolic value. Some communities incorporate this wood into the creation of traditional crafts, ceremonial objects, and tools. Its utilization in crafting items for spiritual practices connects the material world with the sacred, fostering a deeper cultural connection.

Woodworkers also value Manitoba Maple for its aesthetic appeal and workability. The wood's light color with subtle grain patterns makes it suitable for crafting furniture, musical instruments, and decorative items. Its ease of carving and shaping allows artisans to bring their creative visions to life, contributing to the cultural richness of crafted objects.

Manitoba Maple is often employed in the crafting of canoes and paddles, linking back to Indigenous traditions rooted in practicality and resourcefulness. The wood's lightweight yet durable nature makes it an excellent choice for these watercraft, ensuring they can navigate rivers and lakes with ease.

Manitoba Maple platter (above), and a dyed and pierced hollowform made of Manitoba Maple (below).

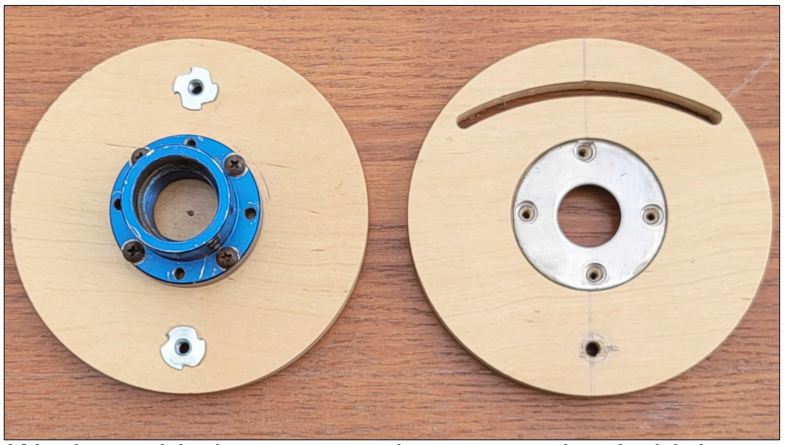
In modern times, Manitoba Maple's popularity extends beyond Indigenous communities. Woodworkers and artisans appreciate its sustainability, as the tree is hardy and adaptable to various climates. Using Manitoba Maple promotes environmentally conscious practices and contributes to the preservation of local ecosystems.

Whether in the hands of Indigenous craftspeople or modern artisans, Manitoba Maple wood serves as a bridge between cultural traditions and contemporary craftsmanship. Its versatile nature and cultural significance make it a valuable resource, fostering a connection between communities and the natural world.

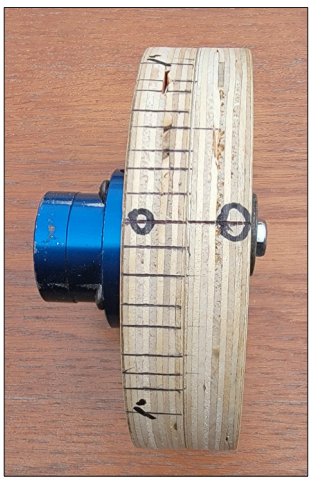
Cranes turned with a Paul Howard style off center jig

Story and photos by Waukeene Vinson

This offset jig will give you about a ¾" offset each direction of the center line. I chose to drill the Tenon hole 1-3/8" in diameter. It could be larger or smaller. The 1-3/8" works out well to have enough wood to attach a 2-1/2" to 3" diameter turning blank with 4 screws to hold it securely.



Washer added to prevent the screws that hold the turning blank from digging in to the wood on the back of the jig.



Drill the 1-3/8" tenon hole after attaching face plate and bolting jig together on the 0 point so centers will line up with center of faceplate when drilling. This ensures the jig is centered to your spindle.

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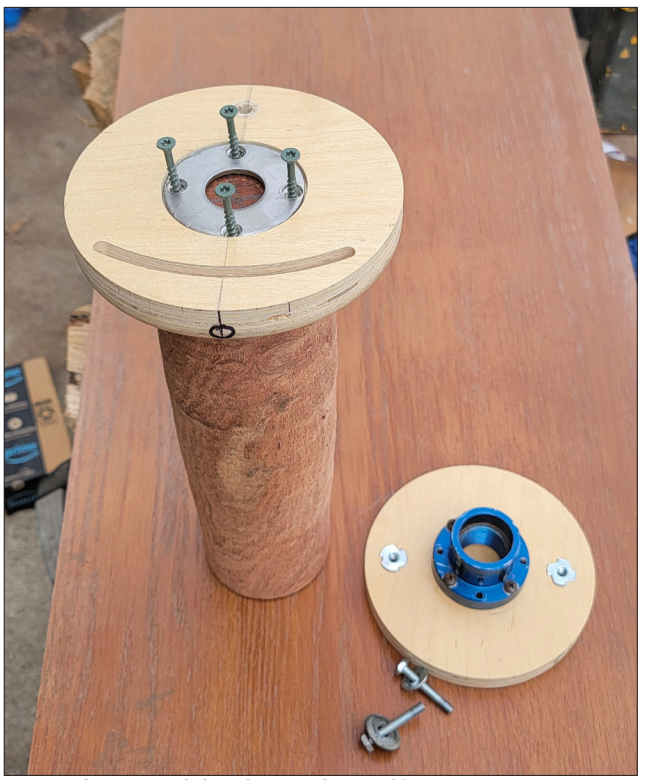
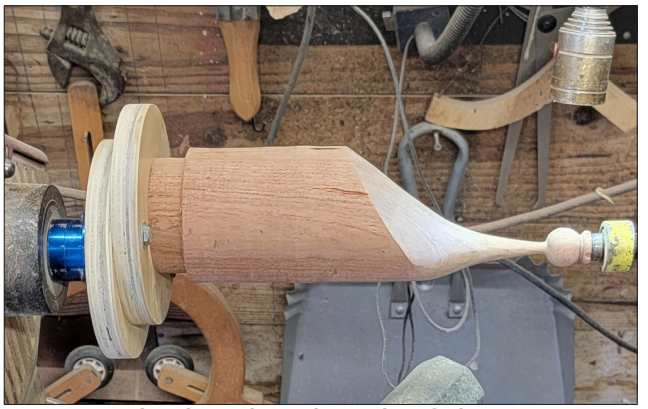
... Cranes (Continued from page 7)



Attaching a blank to the off-center jig.



Turning the head and neck of the crane, jig offset.

Jig centered, turn leg and base.

Crane step by step:

1. Attach turning blank to jig using four wood screws, attach jig face to jig base using two bolts and washers.
2. Offset jig to one side, turn head and neck.
3. Center the piece on the jig, turn body, leg and base.
4. Swing the crane back to the offset to drill the hole for the beak while the head is supported by the tailstock.

Sand each section as it is turned!

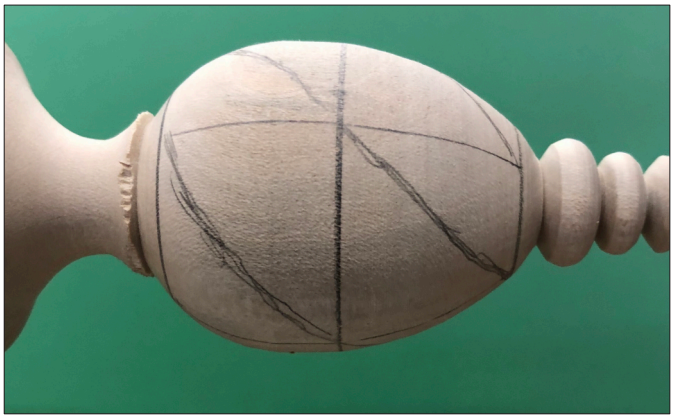
Paul Howard style off-center woodturning jig by Waukeene Vinson

Material List:
2 ea. 6" dia. ¾" Plywood
2 ea. ¼" x 1-½" Bolt
2 ea. ¼" Washers
2 ea. ¼" x 20 TPI T-Nuts
4 ea. # 8 x 1-½" to 2" Wood Screw

Making a four column spiral finial

Story and photos by Howard King

Most of this process is based on work by Stuart Moritimer.



1. Start with a 2" by 2" by 6" piece of straight grain wood.

2. Rough out the placement for the waist and the pointed tip. The section where the spiral columns will be carved should be a shape resembling an egg.

3. Draw four parallel lines along the axis of the piece (horizonatal) 90 degrees from each other.

4. Mark vertical lines dividing the egg along the center, and roughly ¼ inch from the top and bottom.

5. Trace a diagonal line from the intersection of a horizontal and vertical line at the base of the egg up to and through the intersection of the next parallel line and the middle line. Continue the diagonal line up to the intersection of the next parallel line and the line at the top of the egg. The ends of this diagonal line should end up on the opposite sides of the egg form.

6. Draw the other three diagonal lines in like manner giving four spiral lines along the outside of the egg. These lines represent the spaces between the spiral columns.

7. Using the spiral lines as a guide, drill 3/16" holes in each of the lines, aiming the drill bit toward the center of the egg.

8. Use a conical burr bit to connect the drilled holes and open up the space between the columns. Remove as much of the interior of the egg as possible.

Continued on page 10 ...

Your art belongs in our newsletter! Email your photos to editor@worldwidewoodturners.org. Include a brief description!

... Spiral (Continued from page 9)

Story and photos by Howard King

Most of this process is based on work by Stuart Moritimer.

1. Start with a 2" by 2" by 6" piece of straight grain wood.
2. Rough out the placement for the waist and the pointed tip. The section where the spiral columns will be carved should be a shape resembling an egg.
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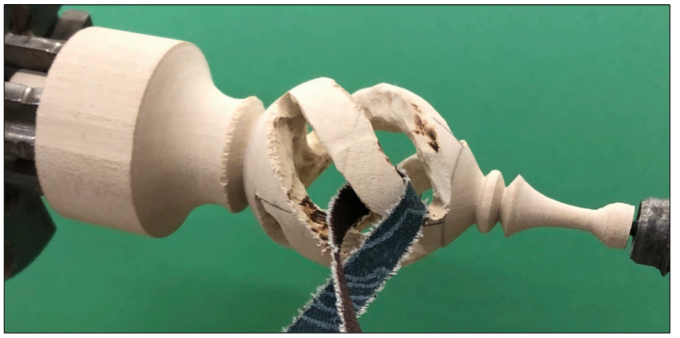
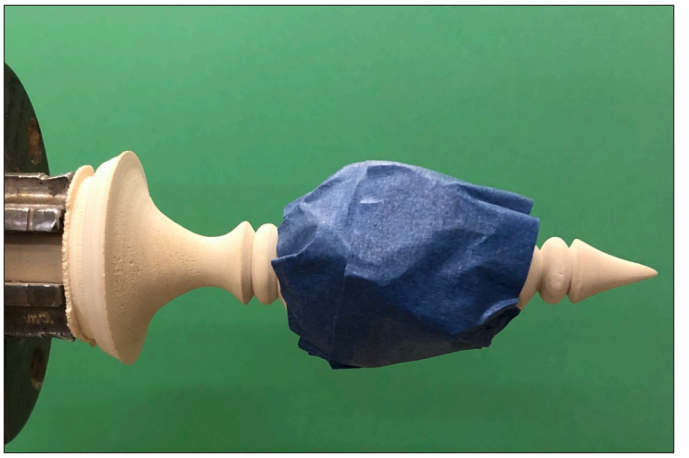




axis of the piece (horizonatal) 90 degrees from each other.

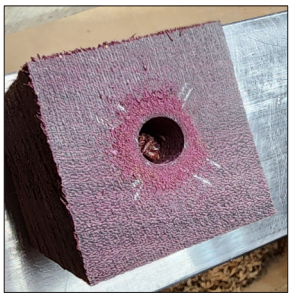
4. Mark vertical lines dividing the egg along the center, and roughly ¼ inch

Four Spiral column tips:

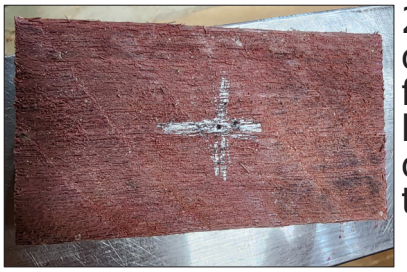
- Holly and Maple work well for this project.
- Keep the piece of wood between centers while working to help give the piece support.
- An indexing system (either built-in, or shop made) and your tool rest are key to marking out your carving lines.
- As you carve the columns, keep the space between them consistent.

Making an “outhollow” ornament

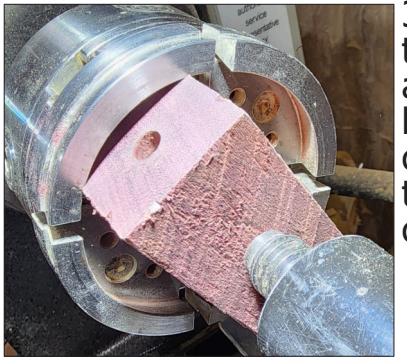
Story and photos by Jon Moore



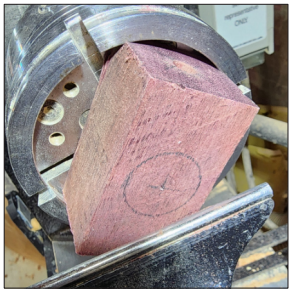
1. Drill a 3/8" hole in each end of your blank approximately 1/2"-3/4" deep.



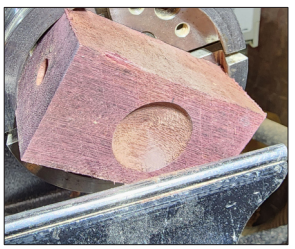
2. Carefully mark centers of all four sides of the blank and center punch the marks.



3. Use the tailstock to align and center the blank to the chuck, then tighten the chuck jaws.



4. Mark a circle approximately 1/4" from the edges of the blank before hollowing so the edges will come out even.



5. Turn out the center of each side of the blank.

6. Make a jam chuck to accept the 3/8" hole on the end of the blank.

7. Mount the blank between the jam chuck and the tail stock.

8. Shape, sand, and finish your ornament as desired.

9. Now ready to turn your finials for the ends.

Finshed outhollow ornament with finials.

Mirror Finish With Polymerized Tung Oil

By Dane Chandler, MSA

The first step to getting a great finish on your turned vessel begins with the finish off the gouge and skew. Tool marks, tearout, and excessive sanding are a detriment to [any] great finish and must be avoided.

Begin sanding at 220 grit and finish with 320/340 grit; sanding in an oscillating manner by hand. Be sure to have a pliable backing (foam or the like) on your sandpaper to avoid finger grooves in the wood. If you use a power-sander, come back and sand by hand to remove the burnished surface created by power sanding at 320/340 grit.

After sanding with the 320/340 paper, soak the vessel with Boiled Linseed Oil (BLO) and do one final sanding with 320/340 grit, then remove any of the slurry created with a cotton cloth & DNA. This step will leave the vessel surface feeling silky smooth and also highlight any flaws in the wood that will require your direct attention to remedy. Now let the BLO cure [which will depend on your shop environment] and denib with 400 grit paper if needed.

Polymerized Tung Oil from Watco or Minwax are the oils I use, but other brands are available.

Step 1: dilute Tung Oil 60/40 with denatured alcohol (60% DNA, 40% Tung Oil). Use a small, quality (Sch 2) plastic container to transfer a small quantity of Tung Oil for the application processes to limit the amount of open time of the master container. This will greatly increase the longevity of all your finishing oils if you do this. To apply, I use 2" x 2" squares of napkin. Rags or t-shirts leave lint on the surfaces.

Appy the 60/40 mix in a thin coat, this will wick into any of the open grain pores. Two coats work best for this. Allow time for the oil to cure. Once the second coat is dry, denib as required for any dust or fibers.

Next, apply full strength Polymerized Tung Oil. Using a 2" x 2" napkin, apply a thin coat of oil to the surface, being careful to not saturate or introduce air bubbles into the oil. You can apply in any grain direction, but you must ensure you

finish the application by pulling the oil with the direction of the grain. As the oil builds, swirls going against the grain will stand out. Allow each coat to dry based on your environment.

Between coats, you may need to denib air bubbles or dust accumulation. To remove, spray with water and wet sand with 1500/2000 grit black paper.

If the surface is gummy, the prior coat was not dry. DNA (or acetone) and a cotton towel will take this off with some elbow grease.

Apply as many coats as needed to achieve your desired luster. Depth of shine can depend on the type of wood and the number of coats applied.

Wet sand with 5000 grit black paper or a 8000/12000 grit micro mesh pad to knock off any fuzzies. Be sure to spray with water; only the fuzz will be removed while leaving an unblemished finish.

Finally, buff with a high thread count cotton towel.

Bill Louch

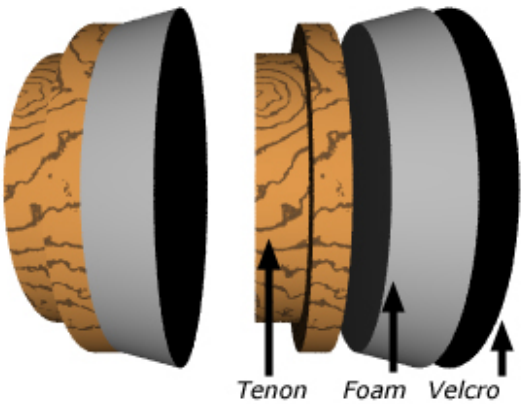
Plum vase with flowers made from a variety of woods such as maple, cherry, and pine.

Making A Lathe Sanding Block

Used for quickly sanding the bottoms of finished pieces

By Matt Harber

I use a sanding block to sand the simple bottom of my pieces. The block fits my scroll chuck, and is constructed out of leftover scrap wood, foam, and Velcro. The foam allows the block and sandpaper to conform to the slight concavity of the work piece (vase, bowl, candlestick, goblet, etc.) bottom.



- "Simple bottom" means that the bottom is simple, slightly concave, and without adornment (grooves, feet, etc).
- The foam was purchased in a three-foot square sheet, one inch thick, from "Foam 'N More", at 1925 Maple Road (15 Mile) in Troy, Michigan (guess: $18).
- The Velcro (industrial strength) was purchased as a roll from my local hardware store.
- The wood base with its tenon is turned from waste stock, usually left over from turning a vase or bowl.
- I have a block for several of my jaw sizes – so that I don't have to change jaws to use the block.
- The foam piece is cut out from the foam sheet with a utility knife, glued to the wood block with E6000 craft glue. I also use the E6000 to glue the Velcro to the foam.
- The Velcro is shaped (after being glued) by using 80-grit (or 100-grit) sandpaper. I've tried my turning tools and they tend to shred/tear the foam unsatisfactorily. Also, before gluing, rough up the foam surface a bit with sandpaper, to give the glue better purchase.
- Glues that I have tried and been unhappy/unsuccessful with: CA (superglue), 2-part epoxy (standard hardware store, Systems 3), Gorilla glue, Elmer's glue. Rubber cement might work, too. The glue appears to need to be slightly flexible and able to take the stress.
- Make sure to use the hook part of the Velcro. The goal is to be able to use circular cutouts of sandpaper on the block.

How it works: Cut out circular sections of graduating grits of sheet cloth-backed sandpaper. I use 100, 150, 220, 320, and 400. I cut them out by using the sanding block as a template, drawing a circle on the sandpaper, then using shop scissors to cut the sandpaper. To sand, put the block in your scroll chuck, put the circular piece of sandpaper on it, turn on your lathe, hold your work piece firmly, and gently advance it into the sandpaper. If you push too hard you may burn your piece or sandpaper, break the sandpaper loose from the Velcro, or possible lose control of your work piece. Then, just go through the grits.

Happy sanding!

Creating a Large Textured Platter

By Scott D. Hampton

Photos Courtesy of the Channel Island Woodturners of Ventura, Calif.

This project is best for those who are experienced making platters and bowls.

This platter will be between 15-17 inches in diameter, with a shallow bowl shape from rim to center that is deep textured using a mini power carver. The center will have a 3-inch medallion that is colored and highlighted with gilding cream.

The wood I use is either maple, walnut, or sugar pine. I find these woods work well for creating the texture using the method I use.

Tools:

⅝" and ½" bowl gouges, 1" radius scraper, ⅛" parting tool, point tool or small skew chisel. Scroll Chuck with 4" jaws and woodworm/screw center, or a faceplate. Arbortech Mini Power Carver with carbide tooth cutter. Ruler or compass, pencil.

Materials:

'Scotch Abrasive pads/sponges, 180-400 grit sandpaper. Black dye, black marker/Sharpie, or a small butane torch. Gold, silver (or your preferred color) gilding cream. My preferred finish is Mahoney's Walnut Oil, as it's easy to apply and leaves a golden color to the wood. Spray-on satin lacquer.

Step-By-Step Instructions:

1. **Preparing the Blank:** Begin with a platter blank that measures between 15-18 inches in diameter, and no less than 2-inches thick. To mount the wood to the lathe, use a screw center (my preferred method) or a faceplate.

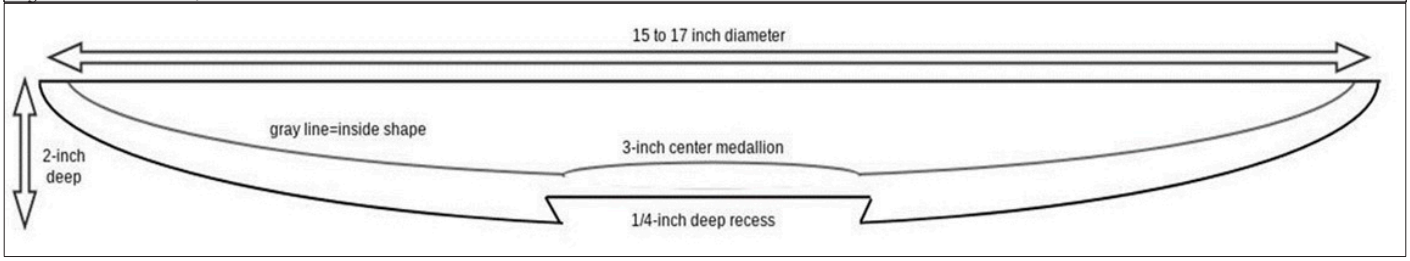
   - If using a screw center, place a spacer on the threads to shorten the screw so you can drill a shallower hole, which makes it easier to turn away the drilled hole. Drill a hole centered on the top of the blank, a little deeper than the length of the screw with the spacer in place.

   - If you are using a faceplate, center the faceplate on the top of the blank and attach using sheet metal or steel wood screws 1 ¼" long.

   - Mount the blank to the lathe and spin by hand to check clearances and balance of the blank. When everything is satisfactory, you are ready to move on to turning the blank. Use your tailstock with a live center for extra support.

2. **Balancing the Blank:** Start your lathe at a low speed and gradually increase the speed to where you feel most comfortable, and there is NO VIBRATION. I usually begin cutting with a speed between 700-800 rpms.

   - Using a ⅝" bowl gouge, begin with balancing the rim by cutting towards the headstock and the gouge at a 45-degree angle. Continue until the rim is running balanced and true.



- If the bottom face of the blank is out of balance/wobbling, use the ⅝" gouge to make scraping cuts from center to rim, or make step cuts, until the blank is balanced.

- It's very important the blank is balanced and vibration free to make the shaping and finishing cuts safely.

3. **Shaping The Bottom:** There are a few ways you can go about shaping the back of the blank to create the convex shape shown in the diagram above. Using a ⅝" or ½" bowl gouge you can...

   - use a scraping cut starting from the center to the rim.

   - Use a push cut from the center to the rim, or

   - Make step cuts starting at the rim and working your way to the center. This is my preferred method to cut the overall shape of the bottom, as you can remove wood quickly.

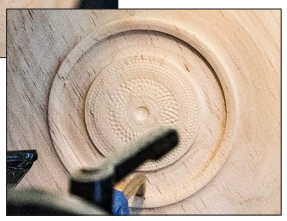
   - Once I have the general shape, I use a shear scraping cut using a ½" bowl gouge to fine tune the final shape. I then use a 1" radius scraper to shear scrape the bottom to remove any high spots and tool marks left by the gouge.

   - Sand the bottom of the piece starting with 180-grit sandpaper and work up to 400-grit.

   - If you would like to forgo the sanding, you can texture the bottom using the 'Deep Texturing' instructions to follow.

4. **Creating the Recess:** To mount the piece to the scroll chuck and turn the top of the piece, you will need to create a recess in the center of the bottom that is 3" to 4" wide x ¼" deep. I like to use a ⅛" parting tool to cut the recess. You can remove the tailstock to cut the recess, as it tends to get into the way.

   • Cut the recess with a dovetail shape that matches the dovetail of the jaws on the chuck. Make sure to cut a flat area in the bottom of the recess for the top of the chuck jaws to rest on.



   • I also like to create a bit of detail inside the recess using a chatter tool or the small Sorby Texturing Tool. It's not necessary, although it does add a bit of detail on the bottom, and it seems everyone likes to take a look there when they pick up the piece (see photo).

5. **Shaping the Top:** To begin shaping the top/inside of the platter remove the blank from the screw center or remove from the faceplate. Mount the scroll chuck on the lathe with jaws that match the size of the recess on the bottom. Place the recess over the jaws and tighten. For added security bring the tailstock with a live center up to help support the blank.

   - Using a ⅝" bowl gouge, true up the face of the blank to remove any runout using the same method in Step 2 so the blank is running true with no vibration.

… Continued from page 3.

- Using a ruler or compass, mark a circle in the center of the blank that matches the size of the bottom recess. This is for the center medallion. The medallion does two things, 1. It creates a nice focal point in the center of the piece, 2. Because it's over the top of the recess, it adds thickness and added strength to the wood.

6. **To create the shallow bowl/convex** (see diagram on page 4): on the top of the blank you can use a few cutting methods.

- Use a push cut just as you will for creating a bowl.

- Use a scraping cut starting at the center and cutting to the rim. 3. A step-down cut starting at the rim and moving towards the center. Do not cut in the area marked for the medallion.

6. Making the Center Medallion: When you are halfway to the desired thickness of the blank, stop cutting so the medallion can be finished.

- Using a parting tool, cut a ¼" wide groove ⅜" below the surface. Using the ½" bowl gouge, cut a convex/dome shape from the groove to the center. Next, cut a concave shape (see photo) a ½" wide down to the outside diameter of the medallion. Sand the medallion with 180-grit sandpaper to remove any tool marks left by the gouge. Leave the extra thickness around the medallion, as this will be cut away after the design elements are completed.

- To make the medallion standout, you can use various techniques. You can dye the center black, use a black Sharpie or paint pen to color the center black, or burn it using a small butane torch. (Warning: If using a torch, always make sure the area you are burning in is completely free of flammable items. Remove all shavings and dust around your work area and have plenty of ventilation). When possible, I do my burning outside on a cement driveway or patio, removing the blank from the lathe while still attached to the scroll chuck. If burning, use a soft brass brush to remove any soot and residue from the burned area when the burning is complete.

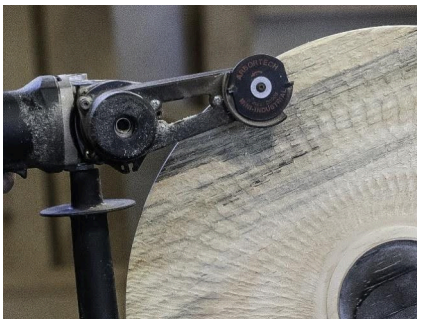
- When you have finished with coloring the center, use gilding cream to fill in the grain of the wood. Rub it in well to fill in all the open grain. Remove the excess gilding cream using a clean paper towel with the lathe running at 400 rpms. Always use a clean portion of the paper towel to remove the cream. Turn off the lathe periodically to check the progress. When you are happy with how it looks, stop there.

- To finish and seal the gilding cream, spray on a couple of coats of satin lacquer.

7. **Finishing Cutting the Inside:** To finish the inside cuts, use the same methods used in Step 5.

- Using the 1” radius scraper, make a finishing cut by turning the scraper up to a 450 angle to shear scrap the inside to remove any high spots.

- I like to keep the thickness at the rim ⅜” thick, and then gradually thicker as you move towards the medallion. This extra thickness is necessary for the texturing of the piece. When the cutting is done, use 180-grit sandpaper to remove any tool marks left by the gouges and scraper.



8. **Creating the Deep Texture:** To create the deep texture on the platter, I use a mini power carver. There are a few brands of carvers that can be used to create the texture. The Proxon Mini Carver, the Merlin Mini Carver, and the one I recommend and will be using for this project, the Arbortech Mini Power Carver. I have found that the carvers that have the chainsaw style blades tend to make choppy cuts instead of a pattern like that shown in the photo. I also use the carbide blade that has two teeth. *(I recommend practicing on your blank before beginning the final texturing. I still do this, as all wood is different and will react differently to the texturing. After following Step 2. Balancing the Blank, you can practice texturing cuts on the bottom of the blank. Start about three inches from center and use the methods described in this section. After practicing, just turn away the texture and continue with Step 3).*

- Turn on the lathe to a speed between 350-400 rpms. This is important. Too fast and the carver will skip and bounce across the wood. Too slow and it will dig into the wood. I learned this through hours of practice.

- To begin, you must hold the carver correctly. The blade must be facing up, with the direction arrow of the blade facing towards the rim of the platter (see photos).

- Hold the handle of the carver firmly in your right hand and tuck the body of the carver into your right side using your left hand. You will move the carver with your body, not your arms or hands.

- Holding the carver as described, start the motor, and make sure the top of the blade is spinning towards the rim of the blank. Step up close to the blank, putting your weight on your right foot. Gently place the spinning blade on the blank, just outside of the medallion, and shift your weight to your left foot at a steady pace while the carver moves across the face of the blank towards the rim.

- When the texturing is finished, turn off the lathe and have a look. If the pattern isn’t quite what you like, or isn’t deep enough, you can make another pass or two as described above.

- Do Not Use the Carver on The Rim/Edge of The Blank With The Lathe Running! This can be dangerous, as the carver can break pieces of the blank off and shatter the blank.

- When you are happy with how the texturing looks, you will need to remove any ‘fuzzies’ and sharpness the carver left behind. To do this, use a gray or white ‘Scotch’ abrasive pad/sponge. Be careful, spending too much time in one area can cause some of the texturing to be removed.

9. **Finishing the Piece:** To finish the piece I like to use an oil finish like Mahoney’s Walnut Oil.

- Apply the finish with the piece off the lathe.
- Use a brush to apply the oil so you can get down into all the nooks and crannies of the texturing. Let the oil soak in for about 5-10 minutes, and then remove the remainder with a lint free cloth. Wait about an hour and then apply a second coat using the same method.
- After the front is dry, apply a couple of coats of the same oil to the bottom of the piece with a lint free cloth, letting it dry between coats.

No specialized way to hold small, round pieces like beads for drilling? Editor Joaquin Juatai made this quick, easy jig to hold beads. Split a piece of waste wood down the center, cut corresponding 90-degree notches, and use a standard "F" style clamp to hold your work piece. Simple, quick, and safe.

Makeshift lathe extension

By Howard King

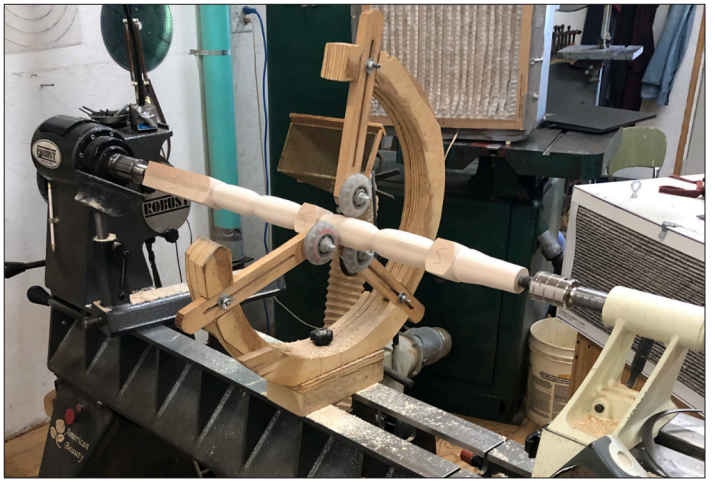
Sometimes when you want to, need to, or are asked to do a turning that is beyond the capacity of your lathe. 99.99 % of the time, the answer, for safety's sake, should be "NO". When I was asked if I could turn some 36 inch long legs for a Kitchen Island. This exceeded the limit for spindle turning on my lathe, so I replied, "no."

After thinking about the problem, I thought that if I could attach my Midi lathe to my large lathe, I might just accomplish the feat.

For a trial, I put the end of my Jet Midi lathe up to the end of my Robust lathe. I shimmed the Midi lathe so that the spindle heights (headstock of large lathe to tailstock of the Midi lathe) would be level and lined up. I reversed the tailstock on the Midi lathe. I then clamped the two lathes together securely. After being able to safely turn a 36 inch, 2" by 2" piece of maple in a trial run, I felt confident that I could accomplish the project safely.

If you try to do this, here are some tips I think you should follow.

1- Don't do it. Just because I was able to do it successfully doesn't mean you should try to do it.



2- Buy a large lathe that can handle long spindle turnings. Or buy a bed extension.

If you're stubborn and like me don't have a long spindle turning lathe or a bed extension then:

3- Attach the two lathes securely. I wouldn't recommend attaching two Midi lathes together. Nor two Mini lathes.

4- Make sure the spindles of the two lathes (headstock of one lathe to tailstock of the other lathe) are "lined up" perfectly vertically and horizontally.

5- Double check that two lathes are attached securely.

6- The two pieces I made were 2" by 2" by 36". I wouldn't recommend anything larger. Remember, the Midi lathe is much smaller and lighter. It is not recommended to do a large turning like that for a larger lathe.

7- Do a practice piece or two or three.

8- Follow all safety precautions that you normally should do every time you step up to a lathe to turn wood.

9- Use a steady rest for long spindle turning to keep the stock from "whipping".

10- Think over what you're fixing to do. Then think it through a second time checking that everything is secure and lined up.

11- At the first sign of noise or vibration, STOP. Check everything, especially the way you have secured the two lathes together. Ensure the headstock and tailstock lined up vertically and horizontally.

Segmented Ring Alignment Jig

By Billy Burt

I started with a piece of laminated plywood from an old cabinet. It was only slightly larger than the round piece in the photos.

I took a 1-1/2" x 5" block of oak and turned it round, making sure both faces were flat and parallel. Then I drilled a 21/32" hole in the center of one face and tapped it with a 3/4"x10tpi tap occasionally using thin CA to stiffen the oak for threading. After threading I cut a dovetail tenon on the tapped side to fit a chuck with large jaws (~ 4"). I did this to give me diversity in using the piece.

Then I located the center on the back of the laminated plywood and glued the oak block on it. The next day I threaded the oak onto my live center. I cut a nail the diameter of the locking hole, and the cut it to the width of the live center (see photos). I secured the nail with blue tape so it wouldn't fly out when turning.

Next, I put the live center Morse taper into the headstock. I put another live center with a wooden "soft touch" on it into the tail stock and moved it up to secure the piece in the headstock (see photos).

Once secure, I turned the plywood round and cut grooves every half inch using a point tool.

I've included photos of this jig in action to give you an idea of how I use it.

Do you have a tip, trick, or tool like this you want to share? Email your photos and description to editor@worldwidewoodturners.org!

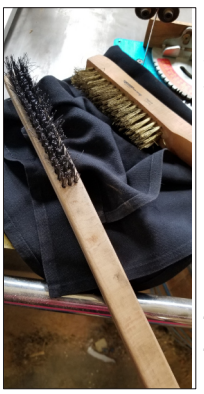
Cleaning your CBN wheels

By Dane Chandler, MSA

You've had your CBN grinding wheels for several years now, sharpening & reshaping tools, just carrying on and not giving any care to the efficiency of the wheels. Unbeknownst to you, they are dirty and need to be cleaned.

Visually you can tell the CBN wheels are loaded as some areas [or all] are shinier than others. Physically, you can tell by your tool getting hot when sharpening or the tool is just not cutting like it [used too]. Having any of these features, the wheel is screaming to be cleaned.

What's needed to clean your CBN wheel? it's a simple list and most will already have these items in your shop arsenal: PB Blaster or Brake Cleaner, Wire Brush (brass, phenolic carbon, wire, et al.), a lint free, durable rag like denim or [cloth] dinner napkins, or the like, a HSS 5/16" drill bit & vise grips.



How to Clean: spray down the whole CBN Wheel with the PB Blaster and let stand for couple of minutes (or you can do small section at a time), then use the wire brush in a circular manner, working a section of the wheel at a time. You do not have to work the brush hard as the PB Blaster has penetrated and loosed the grime from the wheel. Move from one section to the next, working the brush around and lifting the grime until you have the whole wheel done. Now take the [denim type] rag and thoroughly clean the loosened grime and PB Blaster from the wheel. If there are still spots left on the wheel, repeat the process on the sections as needed.

Now if your CBN Wheels are extremely loaded because you use Slick Stick on the CBN so you can sharpen High Carbon Steel (bench chisels, carving chisels, knives, et al) items, or you use lower grade M2-M35 HSS tools which will load the wheels quicker. For this we use the HSS 5/16" drill bit to de-embed these soft metal particles. Just clamp the 5/16" bit in the vise grips, and work the bit off the platform Left to Right to Left with [good] moderate pressure with the grinder ON. This will essentially replace the softer embedded particles with the HSS from the drill bit. After doing this you clean the CBN as described earlier. Should you have a problematic CBN Wheel and it is still dirty, you can take the wheels off and reverse their direction then repeat the cleaning process.

This cleaning process also works on your diamond stones, spray it down, let the PB Blaster do its thing for a couple minutes, [moderately] massage the diamond stone with the wire brush in a circular motion, and wipe

clean with the denim rag. Done.

Now your CBN Wheels & Diamond Stones are clean and ready to sharpen & hone like they were new.

The process I have described here is the same process used and recommended by Ken Rizzo at Woodturnerswonders. Ken's YouTube video can be viewed at this link: https://youtu.be/6TCFzRZpdco?si=t6agKdvLxQupczBe. The only change I made was the use of denim type material for the rag as it does not leave bits/bobs/lint on the wheel.

Tenon sizing jig

By Howard King

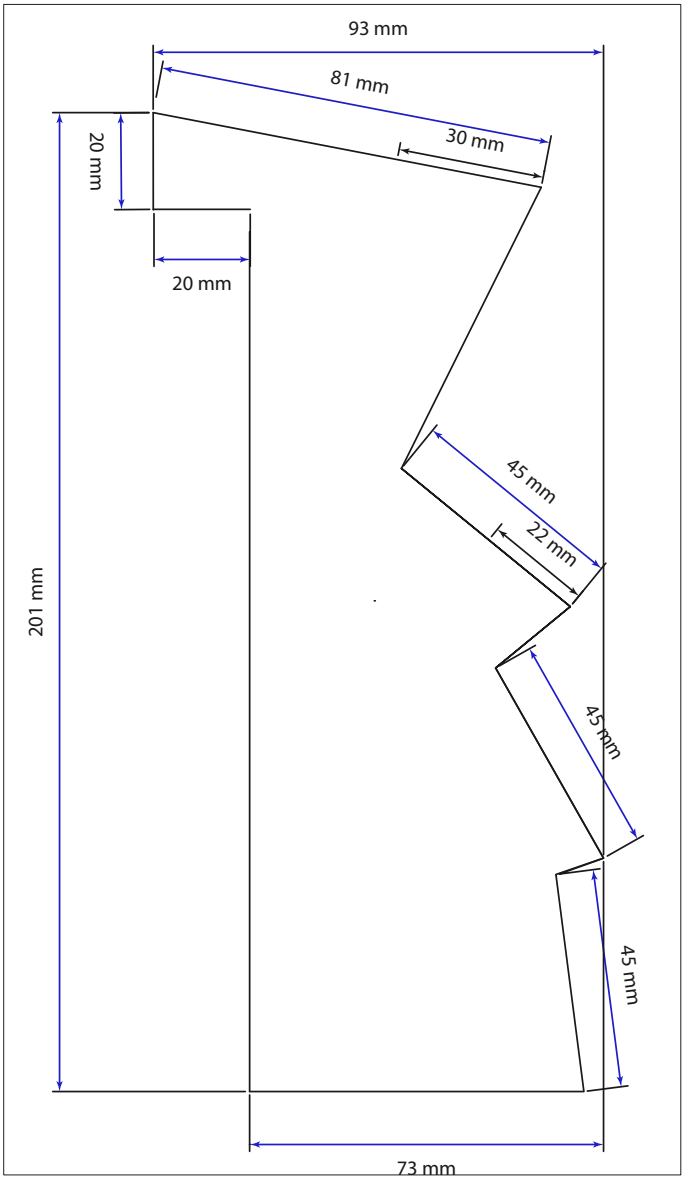
There are many ways to determine the size and depth needed for a tenon and/or recess for the mounting of a piece on a chuck. I have three main chucks (all Nova) that I most often use where the jaws are 50mm, 80 mm and 100mm.

I made a handle with a notch that fits over the end of an Oneway live center. From the center of the notch I measured a distance of 25 mm (for the 50 mm jaws); 40 mm (for the 80 mm jaws) and 50 mm (for the 100 mm jaws). At each of these marks, I put a cut nail so that the point of the nail would scribe a mark on the bottom of a turning indicating where I should cut to for the correct size of the tenon.

Once I'm ready with the piece to add the tenon, I just fit the notch over the live center, press the nail points against the spinning wood. This scribes the correct marks for the tenon. No more worries trying to hold compass points to make the mark. What is pretty neat is that the 50 mm scribed line on the bottom not only gives you the tenon size but also gives you the recess size.

World Wide Woodturners meets via Zoom every Wednesday evening at 7:00 PM Eastern. Go to worldwidewoodturners.org and click “Go to meeting.”

Morse taper centers rack



By Paul Hannaby

As shown during the July 3rd meeting of World Wide Woodturners, here is Paul Hannaby's Morse Taper stand.

The stand can be free standing or could be mounted flat on a wall if the protruding corner at the top left was cut off. My version was intended to hang on the end of a cabinet.

The horizontal parts of the rack can be any length you want depending how many Morse taper accessories you have or you could even drill holes to hold other accessories. The top horizontal is 81mm wide, the other three are 45mm wide. On my rack, I adjusted the spacing on each level for the size of accessories, for example, the Jacobs chucks are a larger diameter and needed wider spacing but the holes for the simple 1" four prong drives etc. can be closer together. The centre lines along each horizontal for marking out the drilling holes are 30mm from the front edge for the top horizontal and 22mm from each front edge for the other three horizontals.

I used 7/8" ply for the pieces (because that's what I had to hand) but any suitable wood could be used.

For my rack, I made three of the uprights to give it more strength but a shorter rack might only need two uprights.

To mark out and cut the uprights, I just printed the drawing and marked each corner on a piece of ply using an awl and drew the lines on the wood by joining up the awl marks. To save time, I stuck three pieces of ply together, just putting glue on the areas that would be cut out so I only had to mark out the top piece. I used a bandsaw to make the cuts and when the last cut was done, the three pieces separated.

The holes for the morse tapers are 12mm for MT1, 18mm for MT2 and 24mm for MT3

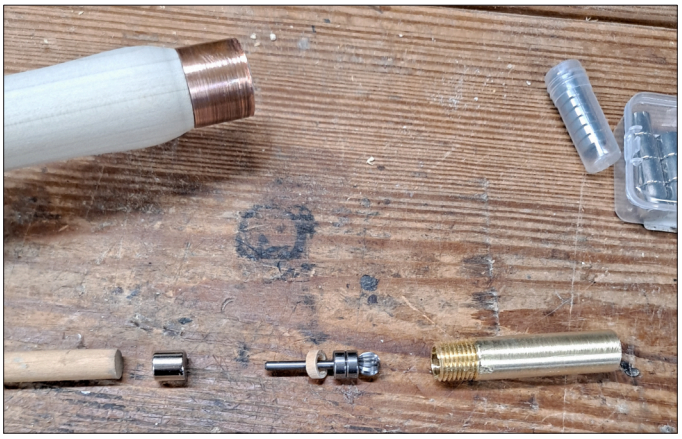
Drawing attached for the uprights. I didn't do a drawing for the horizontal pieces as they are just a simple rectangle.

Shop Made Decorating Elf Tool

By Bob Grinstead

Here is a decorating elf tool I made for embellishing tops and boxes. It uses a standard 1/8" cutter of any shape.

A ball cutter works great.



I bought:

- 1/8" id x 3/8" od x 5/32" bearings (you need two, Amazon)
- 3/8" x 3/8" rare earth magnet (Amazon)
- 1/4" x 3" brass nipple (Home Depot)
- 3/4" copper coupling (Home Depot)

Cut the threads off one end of the brass nipple

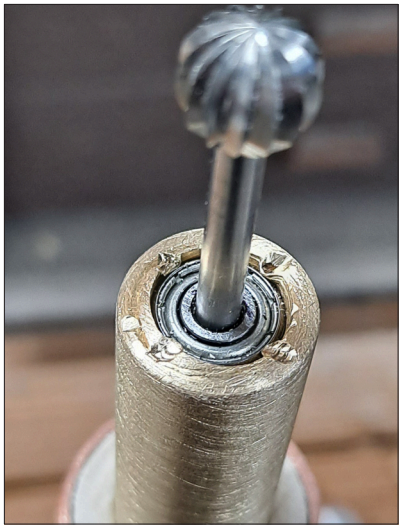
Drill 3/8" hole all the way thru the nipple

Drill 13/32" hole for the magnetic starting on the threaded end of the nipple stopping 1/2" from the other end this leaves room for the bearings and a spacer.

Make a 3/8" x 3/16" wood spacer with a 3/16" hole in it for the tool to fit thru.

Spacer is to allow the 1/8" tool to stick out past the end of the nipple less.

Peen the opening of the nipple to make a stop so the bearings will not come out.



I used a 3/8" dowl to push the magnetic, spacer and 2 bearings up against the peened end on the nipple. Cut the dowel a little proud of the threaded end of the nipple.

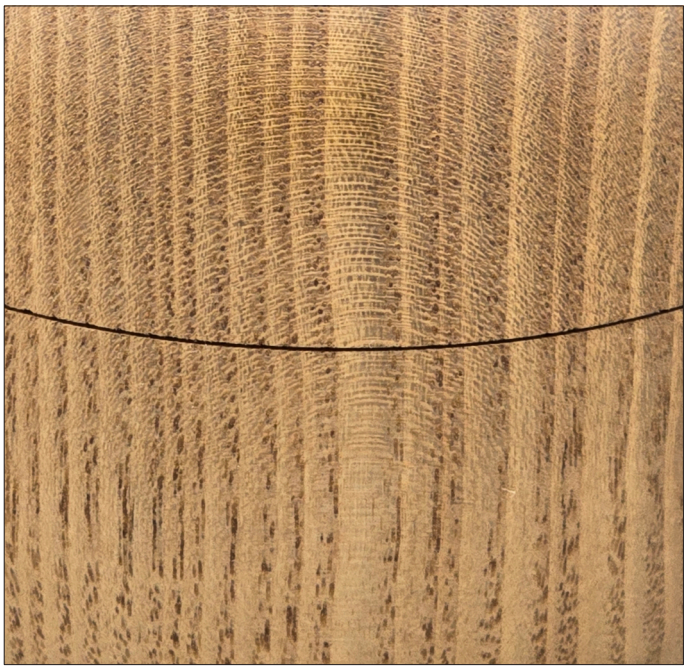
Turn a tool handle with a copper ferrule on the cutter end

Drill a 1/2" dia. x 1" deep hole for the nipple unit

Epoxy the ferrule and the completed nipple unit in the handle.

Your tools, tips, and tricks belong in our newsletter! Email your images and text to editor@worldwidewoodturners.org.

Grain matching lidded boxes



Story and photos by Joaquin Juatai, Editor

One of the challenges of turning a lidded box in spindle orientation is aligning the grain from the top of the piece to the grain in the bottom of the piece. This is difficult because you must remove a segment of material in order to create a mortise and tenon joint for the box to function. The more material you remove, the more difficult it is to maintain the grain pattern from bottom to top of the piece. Your grain match will never be "perfect," but you can achieve a very close alignment from top to bottom of a piece.

One workaround is to create a mortise in both halves of the box, and glue a tenon insert into one of the halves, therefore minimizing the amount of wood removed from the middle of the piece where it's parted. This works, but may not be as appealing as turning the entirety of the box from a single piece of stock.

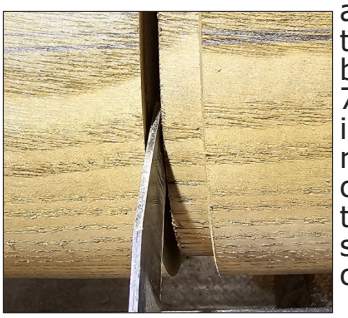
Timber selection can help resolve grain matching issues. Woods with long, straight grain structures align more accurately than heavily figured wood. You can grain match figured woods, but they don't match as consistently as straight grain.

For this example, I chose a piece of sassafras. Oak (especially quarter sawn), ash, and cherry (cut from the trunk, preferably) also work well to achieve the grain match effect. You can match spalting patterns, but they almost never align as well as clean, long grained wood.

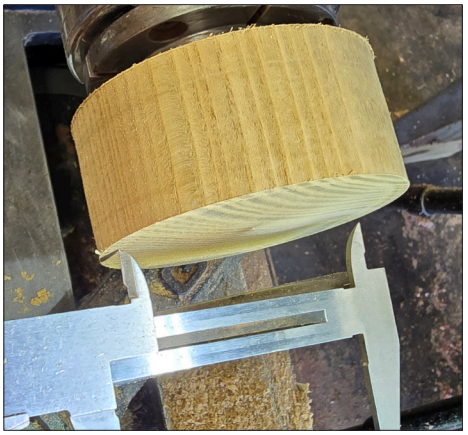
1. Start by preparing your blank between centers in spindle orientation. Turn it round, the closer to a true cylinder, the better.
2. Put tenons on each end to hold the piece in a four-jaw chuck.

3. Marking your layout is helpful (see above). This includes a horizontal line from top to bottom of the piece (left to right between centers). This isn't 100% necessary, however, it helps you maintain the grain orientation throughout the turning process.
4. Mount the piece in your chuck, keeping the tailstock up while parting the halves of the box.
5. The best practice I have found is to use two different parting tools - one wider to create the tenon, and a thin kerf parting tool to actually separate the two halves. I used a Sorby ¼" beading and parting tool and a shop-made thin kerf parting tool made from a recycled Sawsall blade.

6. Cut your tenon to approximately 1½ the width of the wider parting tool (roughly ⅜" in this case). This gives you a deep tenon for a good friction/suction fit, and prevents the tool from binding in the cut, which can create dangerous catches (photo to the left). At the bottom of the tenon, part with a thin kerf parting tool, again, cutting about twice the width of the tool to prevent binding (Photo left, below).



7. Hollow, sand, and finish the inside of the lid. Once you remove this piece from the chuck, you'll never be able to turn the inside of the lid again, so make sure it's finished completely. Remove the top, and



put the bottom half of the box in the chuck.

8. Flatten the face of the bottom half of the box. Remove as little wood as possible - again, the more you remove from between the top and the bottom, the harder it is to match the grain. Use a Vernier caliper to measure the outside diameter of the tenon on the lid, then transfer that measurement to the face of the base - this is the width of your mortise, joining the top to the bottom of the piece (photo above). "Sneak up" on your mortise, ensuring a tight friction fit so you can turn the outside of the box.

9. Align your pencil marks, or a grain feature, and fit the top to the base of the box (photo above). Do not hollow the base before rejoining the halves and turning the outside of the box. This ensures the base maintains the strength to support your friction fit while turning the outside of the box. Safe practice is to return the tailstock to support the entire piece until the last possible moment as you finish turning the top of the lid.

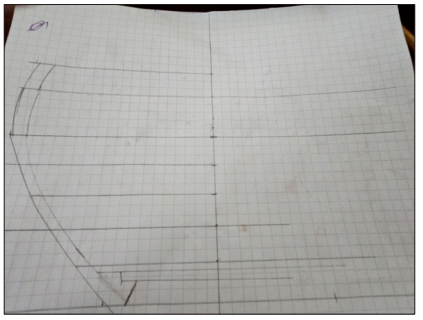
10. Turn, sand, and finish the outside of the box completely (photo left, bottom).
11. Remove the top, hollow and finish the inside of the base. Finish the bottom as you normally would (I used a jam chuck).
12. Enjoy the amazement at your grain alignment when you share your piece with the club!

If you look closely, you can see the grain pattern continue through tenon between the top and base.

Zig-zag bowl accent band

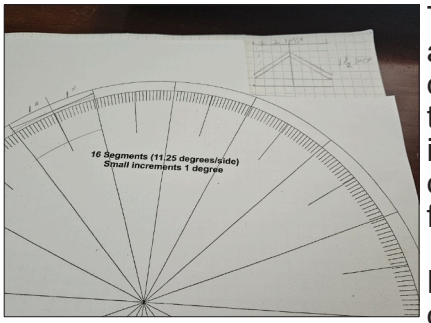
BY Roger Wollam

This project begins with planning. Draw your intended design for the bowl or vessel, then make a cut list for the segments to match the drawing.



Measure the design ring, decide the width of the segments, and divide it in half.

For this example, 16 angled segments are two inches wide, so I divided them into 1 inch halves (see below).

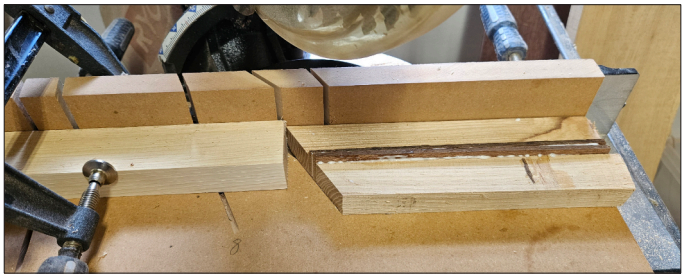


The segments are cut at 11.25 degrees, which total 360 degrees in the full the diameter of the feature ring.

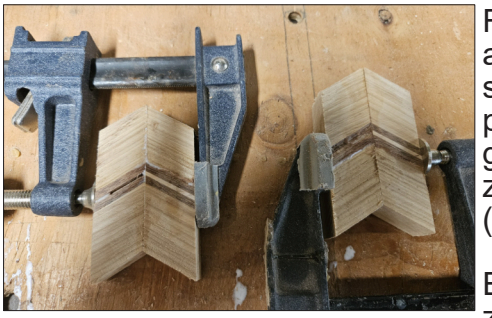
For the zig-zag design in this feature ring, the angle of the halves is 55 degrees (upper right corner of the photo).

Glue up your accent band. Leave it wider than the 1½ inches width it will be cut down to

before being added to the bowl itself.

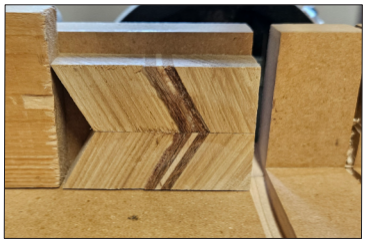


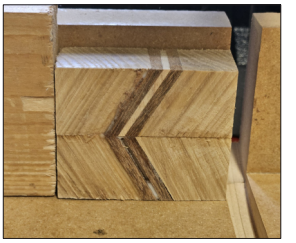
Usiing a miter saw or tablesaw jig, cut the inlay abnd segments at 55 degrees. Cut 32 of these for 16 glued up segments.



Flip opposing angled segment pieces and glue up each zig-zag panel (below).

Ensure the zig-zag pattern will align correctly, then trim the top and bottom of each segment panel to the desired height of the feature band (1½ inches in this example, below).



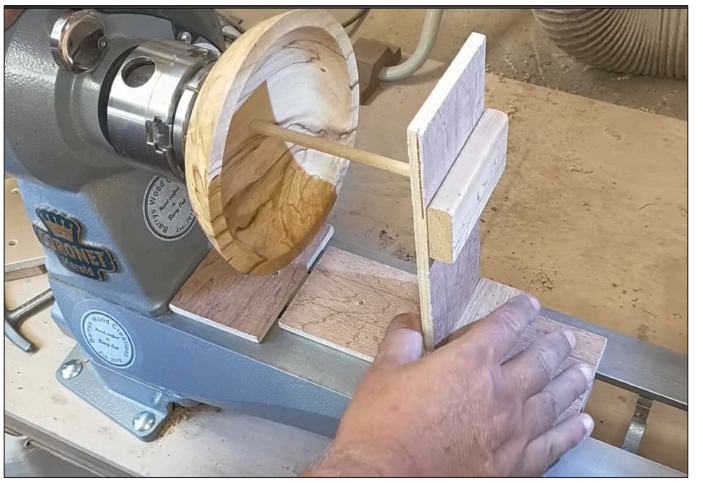


Next, set the miter saw to 11.25 degrees and carefully cut each segment to form a ring on the bowl (photo above, right)

Glue the segmented feature ring together, then add it to your segmented bowl blank, turn and finish as normal (photos below)!

Do you have a walk through for a project like this one? Share it with everyone! Email photos to editor@worldwidewoodturners.org. We will assist with your write up if needed! We want to share your ideas!

Depth Gauge



By Robert Edwards

This accessory can be constructed in order to determine the thickness of the bottom of a vessel.

Using plywood or similar material, cut two pieces approximately 6” long and 4”wide. Assemble at right angles to each other.

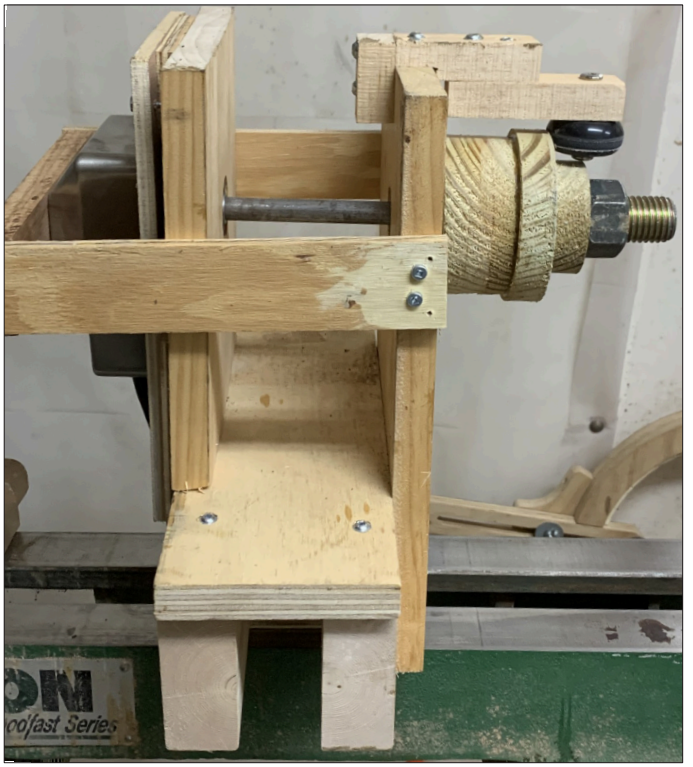
On the bottom piece, attach a piece of stock that fits between the ways of your lathe. It should be cut to slide easily without any side motion.

On the upright piece attach a dowel perpendicular to your headstock and in line with the center axis of your lathe.

A third piece of stock is cut to lay flat across the ways of the lathe. The size of this piece will determine thickness of the vessel.

When the upright fixture is positioned against the cross member piece, it will indicate the distance between the face of the chuck and the bottom of the vessel.

Slow RPM Rotary Tool for Epoxy Finish

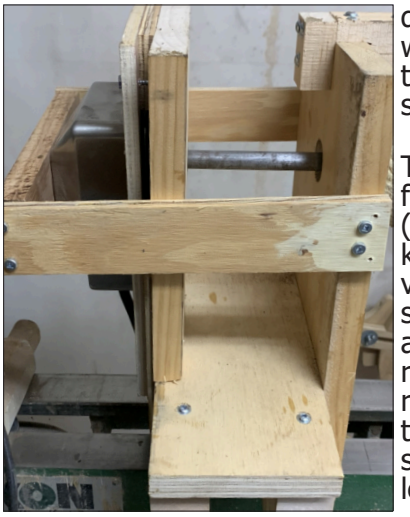


By Dallas Hensley

I am a member of Ozark Woodturners in Mountain Home AR. A few of our members finish their turnings with CA glue. I have been envious of this practice because my lathe will not go slow enough for application. I thought for several months about this and came up with the following for applying an epoxy resin finish.

A BBQ rotisserie provides the turning at 5.5 rpm. Keeping it turning keeps the resin from pooling and allows it to spread out evenly. It is mounted on a 1/4" plywood piece and attached to a 1/2" piece and has support around it to make sure it stays in place.

A 1/2" steel rod was ground square for insertion in drive of rotisserie with bearings going through both upright supports (left).



The lateral framework (reengineer #2) is to keep the front vertical from spreading and allowing the metal rod to come out of rotisserie, causing the piece to stop spinning (seen to the left, as well).

The working end has the metal rod epoxied into a wood segment. The 1"x8TPI bolt is set into the next piece of wood. I wanted to be able to use the jaws that the piece was turned in to connect directly to the rotisserie. The wheel at the top is to keep the entire piece from falling off in the floor (yes it happened, reengineer #1). Notice it's a luggage wheel, the same type of wheel I used for the steady rest you can see hanging on the wall behind lathe.

Below is This is the first big piece completed with this rig. 13-1/4" x 4-1/2".

Open Segment Gluing Platform

By Bob Grinstead

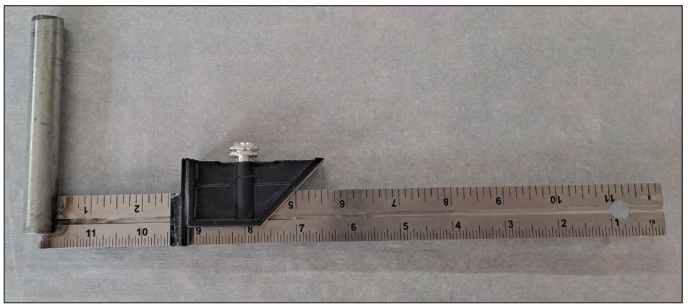
Ever wanted to create an open segment bowl or vase? Here is an easy to make open segment gluing platform. This jig will allow you to position each piece at the correct radius for the ring. An index wheel will position the turning at the correct position for gluing on a segment.

You need:

1) 12" combination square

1) 1/2" or 5/8" dowel, 3" long

Epoxy or Shoe Goo



- -Cut a slot in one end of the dowel the thickness and depth of the ruler in the combination square.

- Glue or epoxy one end of the ruler in this slot. Aligning the end of the ruler with the center of the dowel. Making sure the ruler is at 90 degrees to the dowel.

- The top part of the miter slide with the level is not needed and can be cut off, leaving just the ruler slide and tightening nut.

- Cut a small wedge 1/4" W x 3/16" H x 1"L of wood or out of the plastic cut off in the above step. Glue or epoxy it to the right angle side of the miter slide against the ruler. Careful not to get glue in the slot for the ruler or on the ruler. (Some plastic wrap can be used to protect the ruler from the glue. This wedge is to make a spacer between the miter slide/stop and the open segment piece to be glued. This will ensure the bottom of the miter slide will not interfere with the first segment as it comes around.

Setup:

Place a jacobs chuck in the tailstock. Place the dowel in the chuck and hand tighten.

The ruler should now be at a right angle to the bed. Adjust your tool rest to about the center height. Place your tool rest under the right edge of the ruler by the miter slide for support. Tighten the chuck so the new ruler jig doesn't move.

In use:

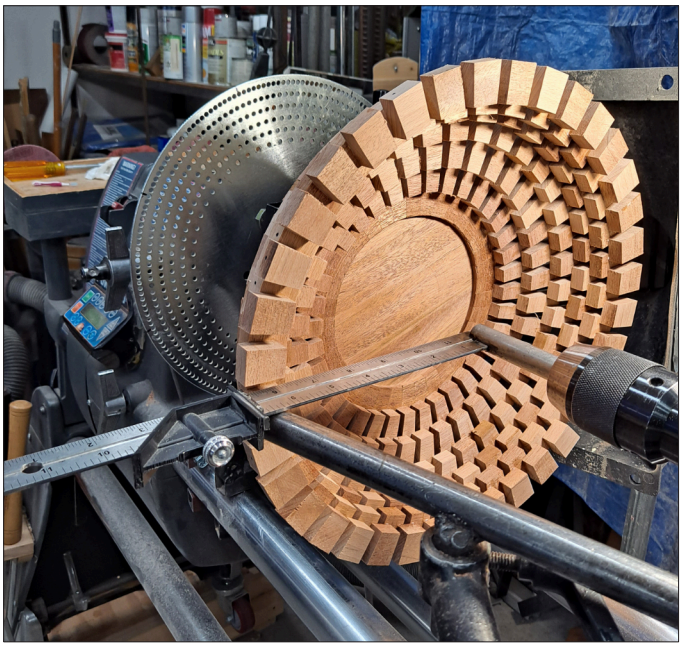
Use an index wheel to position the base or previous ring.

Use the ruler as a platform to position the segment piece.

Set the miter slide and spacer at the radius for the outside of the next ring.

Place a small amount of glue on an open segment piece and place it on the ruler next to the miter slide spacer and glue it in place.

By Bob Grinstead



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Gatekeeping artistry is killing our industry

By Joaquin Juatai, Editor

As I continue to discover the beauty, creativity, challenges, and triumphs of woodturning, one of the things I feel most passionate about is passing our obsession on to younger generations.

At a recent woodturning symposium I attended, more than 90% of attendees, participants, and presenters were in their late 40s or older. I find this to be appalling.

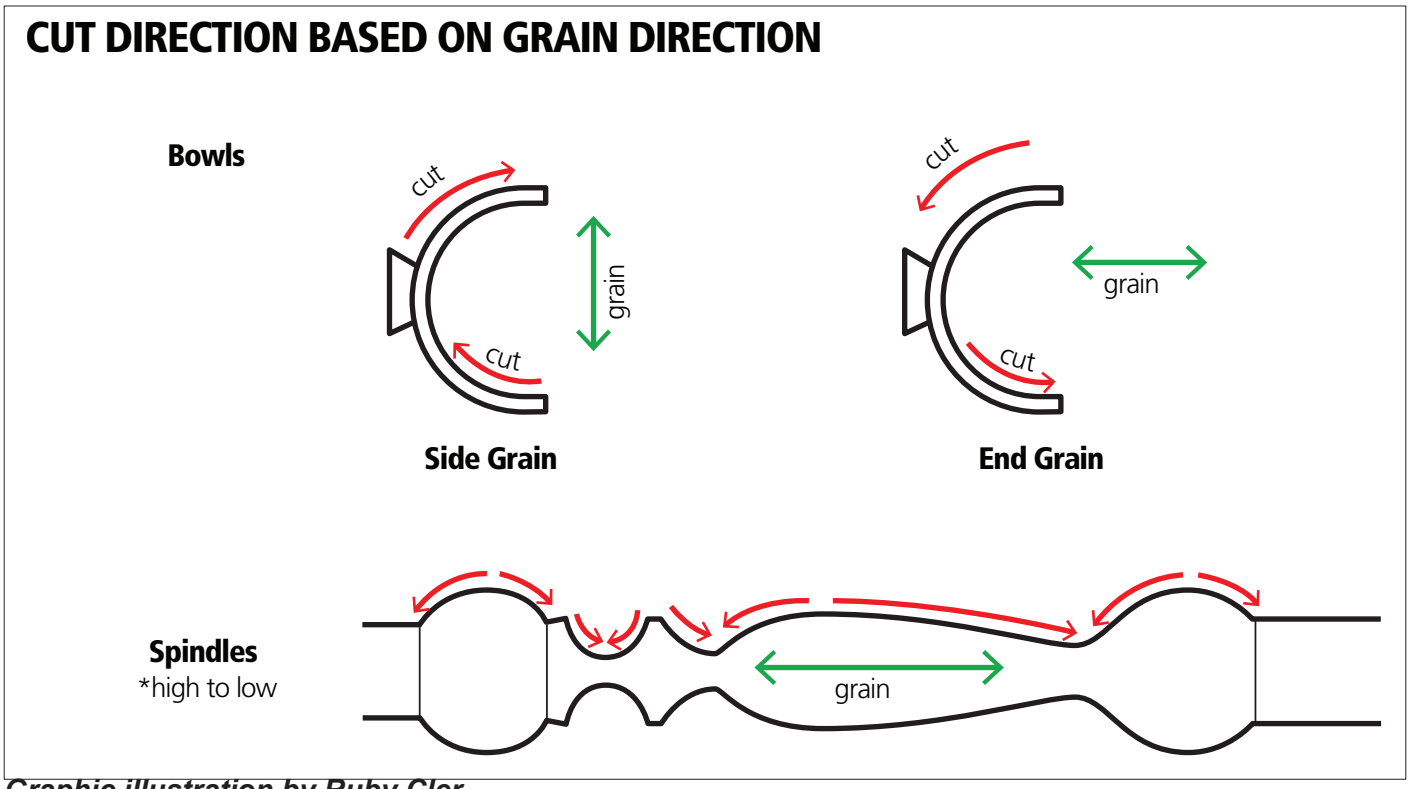
During any given meeting of the WorldWideWoodturners, there is no less than 1000 years of cumulative knowledge present. Our imperative should be to make sure that knowledge does not ever get lost.

This newsletter is yet another avenue through which we can do our part to ensure the collective knowledge of our amazing club is preserved and passed on.

I urge you, club, not to keep secrets. Share your tricks, tips and techniques, and share them freely. Our club gives us the unique advantage of **free** knowledge - free and available to any and all who are interested. As our populace ages, the only thing gatekeeping the knowledge we possess accomplishes is to kill the art of woodturning, one old timer at a time.

All of us have knowledge and skills we can pass on through our art, tutorials, demonstrations, and even writing. Let's continue to build our compendium of woodturning knowledge! We're just getting started!

Uphill, Downhill, What's It All About?



Graphic illustration by Ruby Cler

Article and graphics by Billy Burt, Sr.

We often refer to the terms cutting uphill or downhill when we discuss woodturning; what does this mean, exactly, and how does this involve another frequently used concept, the supported or unsupported cut?

It all has to do with the fibers in the wood, and whether they are being cleanly cut or torn out.

Below is an example of what we might see on the lathe:

Imagine this piece of wood held between centers with the headstock on the left, tailstock on the right. Notice the grain direction. This is a spindle turning. The grain runs parallel to the bed ways from left to right.

In this circumstance, we would cut in the direction shown in the next image.

Notice the angle of the cut and observe the grain. We are cutting across the grain at a downward angle.

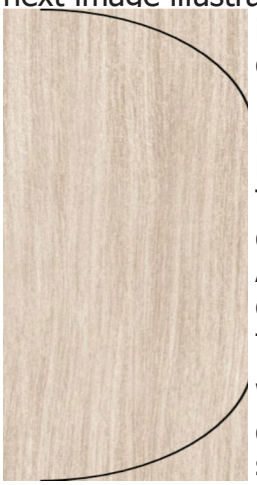
This is a "downhill" cut. It is also a "supported" cut, meaning that the grain being sliced is supported by the grain beneath it. A downhill cut is also referred to as cutting from "high to low."

Cutting downhill gives us a smooth cut that, if we are presenting our tools correctly, needs little or no sanding.

You should never attempt a cut like the one shown in the next image.

Cutting against the grain is an uphill, or unsupported, cut. The wood fibers (grain) being cut are not supported by the grain above them because they are being forced up toward the surface. This causes tear out.

So how does this translate to bowl turning? The next image illustrates a bowl blank on the lathe in what we refer to as straight or cross grain configuration. Notice that the grain direction runs perpendicular to the lathe bed (forward and back). Think about the uphill, downhill discussion above. Again, imagine the headstock on the left and the tailstock on the right.



We want to cut the outside downhill so that we have supported fibers as depicted to the left.

Notice that the fibers will become unsupported as we near the left side, or top of the bowl. This is why you often see turners make a cleaning cut on that side as we are "roughing" out the shape. All of our cuts on the outside of the bowl should be downhill.

What about the inside of a bowl? Why are the inside cuts sometimes referred to as uphill? Examine the image to the left.

I have heard turners refer to this as cutting uphill. Maybe because it is cutting in the opposite direction of the outside cut. Call it what you will, it is still a supported cut, because the fibers below are supporting the cut. A supported cut will always give you a better finish, IF your tools are sharp and your technique is good.

There are always exceptions; soft, punky wood can be very problematic. Burls and highly figured woods can also be problematic. This is why sharp tools and light cuts are important.

On the other hand, I have seen turners cut in the direction shown here on the left, especially once the inside is mostly gone.

What is wrong with this picture? If you said the cut is unsupported by the grain above the direction of the cut, you are correct. In my mind, this is a true uphill cut. And yes, when scraping, many, including this author, may "cut" this direction when doing a final scrape to try and smooth tear out.

With the exception of the problematic woods mentioned earlier, tear out is a result of the fibers being "torn" rather than sliced. One of the most common reasons we get tear out is unsupported cuts, cutting "uphill," or cutting against the grain.

Being aware of grain direction is absolutely critical in ALL forms of woodworking. If you try to use a plane on a board where the grain direction is angled even slightly up against the direction of the plane, you will get torn grain - this would be an unsupported cut.

The same holds true for our woodturning tools. And yes, when turning bowls in traditional straight grain mode, we are dealing with four different directions of grain. Two running perpendicular to the bed ways, and two that are end grain. The end grain sides of the bowl are usually the most difficult to cut cleanly.

Remember the grain direction of your piece, keep your tools sharp, and you should be able to reduce and even eliminate tear out in your turning.