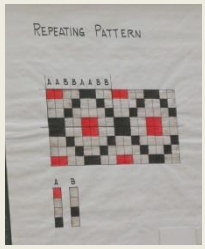
WOODTURNERS OF ST. LOUIS

A Chapter of the American Association of Woodturners

stlturners.org
April 2015

April Meeting Demo > Gary Johnson: Laminated, segmented, stacked-ring bowl●

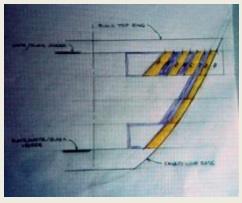
Gary's multi-colored wood laminations create a mosaic pattern that gives the look of a splint basket but the surface is smooth. A lot of his work has been inspired by Native American baskets from Arizona and the Southwest United States. Some of his work, like the one shown here, is a reversible hollow form that is open on both the top and bottom and can be displayed either way (another design challenge for visual and actual use).

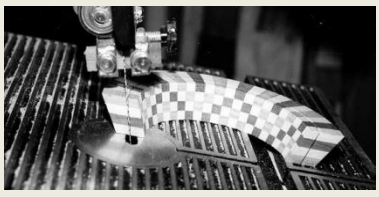


Gary showed how a repeating pattern is made up of basic building blocks – alternating and flipping them to achieve the desired results. He starts by laminating four ¼" strips of different colors such as maple, oak, and walnut into a one inch thick piece. Then using a radial arm saw he cuts the segments at an angle determined by the number of segments and at a length determined by the diameter of the bowl (ring). He likes to make vessels with 48 segments and after cutting 12 segments he checks to see if they form a perfect 90 degree angle. If not, the radial arm setting is adjusted, 12 more cut, checked again, … until he is satisfied.

The segments are then assembled in a sequence to produce the desired pattern and glued. Two opposite joints are not glued so that you will end up with two half disks to permit band sawing the disk into rings. After the glue has set up, the disks are mounted to an MDF faceplate using hot melt glue and faced off to get them clean and level. Circles are then drawn on the disks so that multiple rings can be made from each one. Note in the picture how the patterns reverse to give both parts of the chevron.

The half disks are then cut into rings with the bandsaw set at an angle determined by the plans- each layer being different. The half rings are then glued together using masking tape clamps. The rings are then leveled with a disk sander.





When all the rings are finished, they are stacked and glued together. Four dabs of hot melt glue at each joint keeps the rings aligned while the glue sets up.

The bowl is then hot glued to a piece of MDF for rough turning the outside. The bottom is flattened and glued to a waste block that is attached to a faceplate. After final turning of the outside, the inside is

turned.

For finishing, Gary likes a wiping varnish such as Master Gel. The bowl is then parted off the waste block and a jam chuck used to finish the bottom.

Gary provided a copy of his article on turning a laminated, segmented, stacked-ring bowl that was published in the 1998 AAW magazine, American Woodturner. It provides much more detail and instructions on making a laminated, segmented, stacked-ring bowl. A copy is attached at the end of this newsletter.

Thanks Gary for a very informative discussion on how to do segmented turning.

April Pre-Meeting Demo > Tom Brock – Part 4 of Turning Basics: Side grain turning with screw drive, faceplate, waste block, and chuck in the expansion mode● Devices for holding wood have evolved over the past few years. Tom showed a book "Practical Woodturning by S. Payne" that was his first guide to holding a turning. He then led the members through several means of holding a side grain turning project and demonstrated the use of a chuck in the expansion mode when turning a plate.

Screw center: A screw center chuck is ideal for holding bowls and boxes because the screw provides good holding power. It requires a pre-drilled hole in the center of the work piece which will be turned away in the final steps. They work well for production turning since they offer a quick mounting and dismounting. A wooden spacer provides good backing and depth control for the screw thread in smaller pieces.

Waste block: If you are concerned about screw penetration from a faceplate, a waste block can be glued to the blank before mounting to the faceplate. The waste block can be almost any material and attached to the blank with double sided tape, CA glue, Gorilla glue, or even hot melt (poplar is good, plywood or MDF are not good as they can separate). The waste block is removed or turned away at the end. (Lyle Jamieson is a firm believer in using faceplates and waste blocks. Checkout the book in our library by Ernie Conover titled "The Frugal Woodturner" for more discussion on waste blocks or this link.

Faceplate: *Never use drywall screws*; they are too thin and too brittle. Sheet metal screws are a better choice to attach turning stock to a faceplate. One size does not fit all - make sure you choose a diameter and length that is appropriate to the size and weight of your piece. Tom likes to use the hex heads for ease of driving. Beware of punky or spalted woods that have started to decay. To be on the safe side, bring up the tailstock with a live center for insurance. This will give additional support if the screws do not hold. Jigs are sold that align the faceplate on your blank. If you would like to make your own, check out these links – centering jig and centering jig video.

Chuck in expansion mode: A 4-jaw scroll chuck does a good job of holding material in both the compression and expansion mode. For expansion grips, the recess should be cut with a profile that matches the jaws – some are straight, some are tapered. It should be deep enough for a good grip. Be careful with punky wood or green wood as the grip will loosen over time. Sufficient material must also be left outside the recess to handle the forces generated by the expanding jaws. Tom showed a gage that he uses to size the recess diameter so that he gets the maximum gripping power from the jaws. (Jaws are nearly closed giving a larger jaw/project contact.)

Tom then stepped through the turning of a plate using several of the methods discussed. First, mounting the blank on a faceplate and turning the back side with a recess for the chuck. Then remounting the blank on the chuck with an expansion grip and finishing the front of the plate.

Great job with a lot of tips on both holding devices and safe turning. Thanks Tom.

Library News > Rich Hinkebein● New items this month:

- DVD titled "Getting Started in Turning with Ernie Conover. This DVD has good material for both students and instructors. We have several library items with similar titles.
- DVD by Richard Raffan – "Turning Toys". We have his book by the same title but the DVD has different projects than the book.
- AAW magazine which includes articles on Windsor chairs and the skew chisel.
- AAW also has several free videos for to watch on their website for AAW members.

Several of our DVDs have developed problems from fingerprints, dust, dirt, scratches, and other issues. Please handle all DVDs with care and by their edges or center hubs. Let me know of any problems with them that cleaning does not fix.

A reminder to all members: "*If you can't get to a meeting:*

- *You can return that item to the Woodcraft store at your convenience, just put your name and St. Louis Woodturners on the item and the store will get it to me.*
- *You can ask another member to return it.*
- *You can mail it to me or the store.*

Our library is only open on Sunday at our club meetings and is open to all our paid members for checking out books, videos, and DVD's.

When checking out material:

- Sign and date the card and put it **BEHIND** the letter of your last name in the box.

When you return material:

- Make sure you put the card back in the item and make sure that the card goes with that item.
- Watch that you do not put multiple cards in one item.
- Remember to sign legibly so if something is amiss we can contact the correct person.

Our library is a great source of inspiration and knowledge. A complete listing content is on the club web site. Please take advantage of this wonderful club benefit and return items in a timely manner.

Tech Tips of the Month >

- Lemon juice can be used to remove black areas on a turning. – Dan Burleson
- Check cabinet shops for discarded cabinets that are great for the shop. – Bob Goulding

President's Spin > Bob Goulding ● Welcome to all our new members. Let us know how we can make our meetings more productive and how we can enhance your turning experiences.

Thanks for your patience with our crowded, noisy meeting conditions. Hopefully, in the very near future we'll have a very exciting announcement on that subject.

It is not uncommon to receive requests for turning help. In March I got a request from a high school to turn 6 very large Styrofoam balusters for a theatre stage. Walt Ahlgrim offered to help and not only did the turning but also provided instruction and hands on training for the teacher and several students. They sent a letter of thanks and indicated that they have now purchased a midi lathe and will offer woodturning training to their students! Steve Reynolds also helped a gentleman that needed to repair an antique rolling pin. And Bill Farny is following up with a request to make a "memorial baseball bat" from an ash tree that had to be taken down. Thanks to all of the members that step forward to offer their knowledge and experience.

Thanks to Dave Ackmann for sharing some pieces of Corian. He has located another potential source of Corian. If you are interested in turning Corian, contact Dave.

In early April, Charlie Sapp and I attended a Woodturner Leaders Summit in Springfield, MO. We spent an intense day discussing aspects of the operation of a woodturner club with representatives from MO, AK, OK, and KS. We learned, shared, and discussed for about 8 hours. We came away with several ideas to help us make this a better club in the future. One thing we learned was that several companies offer club discounts – if you just ask. One of these is Hartfield Tool Company. They offer a 15% discount, free shipping, and no tax. Other clubs were impressed with our library budget and the expanse of our library. Special thanks to Rich Hinkebein for his continued service in building and managing our library.

Which reminds me that about 1/3 of our past membership have not yet paid their dues for 2015. Starting at the May meeting, only paid members for 2015 will be allowed to check out material from the library. If there are hardship issues, please contact me personally and privately.

Our May meeting will be devoted to turning bowls and lidded boxes as we hope you will turn one (or more) for the Beads of Courage (BoC) program. The video of the BoC program is very touching and emphasizes the importance of our contributions to it. To make it more meaningful, we have a point of contact at Children's Hospital in St. Louis so the boxes will stay local.

We have about 20 jugs that are used for distributing end sealer. They need to be moved from their present location and stored until we find a member to take over this job. If you can store the jugs, contact me.

Note that our May meeting will be on May 17th due to the regular meeting date being on Memorial weekend.
– Bob Goulding

Club News>

Membership dues are due● Dues for 2015 are payable now. An application is available on the club web site. Dues are $30 individual; $40 family. If you are renewing, you don't need to complete a new application just pay your dues to Walt and make sure that the contact information we have on file is correct.

Attendance/Treasurers Report● Approximately 49 members/guests attended the April meeting. - Walt Ahlgrim

Newsletter● Did you know that by hovering your mouse over the "blue" text in the newsletter you can click and be taken to the web site that provides you with more information on the subject? Give it a try if you have not done so in the past. Want to make the text and pictures bigger – just Ctrl + Scroll on your mouse to increase or decrease your screen display.

Community Projects●

Beads of Courage> This is an opportunity for members to ***ReTurn*** to the community. We are following the AAW program guidelines, but will distribute the boxes to Children's Hospital in St. Louis. Steve Reynolds is leading the program for our club. Contact Steve with your turnings or to answer any questions. The club is ordering a couple bags of the official Beads of Courage "beads" that can be installed on your box. They are 13/16" in diameter and 19/64" tall. They will be available at the next meeting ($1.25 each). Thanks in advance for your support.

Perhaps you do not want to turn a lidded box but would like to contribute. I got this note from Dave Ackmann who has another approach:

> ***"Because I do smaller work and not larger boxes, I am more interested in making beads. I learned that the desired hole size for beads is 3/32" (http://www.beadsofcourage.org/pages/glassbeads.htm); countersinking the holes on wooden beads might be a good idea. I did see that they request that beads be sent to Tucson for inspection, rather than directly to hospitals (http://www.beadsofcourage.org/pages/donatebeads.html); don't know if that is still an active request." Contact Dave if you would also like to contribute by turning beads!***

Coffee and Cookies● Complementary coffee is available at the meetings. The price for cookies is posted. Purchases are on the honor system.

Web site● If you have not signed on to the club web site but want to establish an account send your request to the President, Bob Goulding. Once your membership is verified, he will contact the web master and an account will be established for you with a temporary password. When you sign on for the first time you will be able to set your own password. If you would like to be featured on the home page, provide Jon Spelbring with 4 to 6 good quality pictures (640 x 480) of your turnings with the same background. You can also establish your own gallery! If you have any problems with web site operation, downloading, or general suggestions please contact the officers.

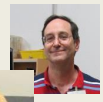
Symposiums and Classes>

- **29th Annual AAW International Symposium** June 25-28, 2015 at the David L. Lawrence Convention Center in Pittsburgh, PA.

- **Ohio Valley Woodturners Guild Symposium -** October 9-11, 2015 at the Higher Ground Conference Center. This is a regional symposium held in a rural setting. It has on-site lodge, dorm facilities, RV park and campground as well as national chain hotels close by.

● **St. Louis Symposium –** We don't have one scheduled but Gary Johnson showed the shirt they had made when our club sponsored a symposium in 1996 (and several other years) and encouraged club members to give it consideration. Contact Gary if you would be interested in helping organize a future symposium.

President's Challenge> April Yarn Bowl● Walt Ahlgim's yarn bowl was selected by the members as the winner of the April President's Challenge. The other entries are shown in the picture section of the newsletter. Congratulations Walt.



May President's Challenge ● Turn something other than a pen from a pen blank (or any piece of material 3/4"x3/4"x5"). One entry per member and they must have been turned within the last three months. Please be sure to sign your name to the challenge sheet and to vote during the break!

– Bob Goulding

HOW TO TURN A TALL BOX FROM FLAT STOCK! YES IT CAN BE DONE!

Want to turn a lidded box for the Beads of Courage challenge but you don't have a piece of wood large enough to make a 6" diameter box. Well here is great news. You can combine the knowledge gained from Gary Johnson's demo on segmented turning with some flat stock to make that box! You can do the laminations if you want. But if you don't want, just start with some flat stock, say around ¾" thick. Instead of 48 segments that Gary used, let's go with 12 segments. That gives a miter angle of 15 degrees and a long segment side length of 1.6747" (round it off it you want). If we go with a finished wall thickness of 3/8" and we are careful with alignments, we can slice our flat stock into .53" wide strips for cutting segments (make them wider if you feel more comfortable with extra wood). Follow the procedure for gluing up the segments into half circles (you will not have to cut circles from a disk as you are making each ring separately). Match up your half circles; if they do not have a gap then you are either good/lucky/or both. If you do have a gap between the half circles, lightly sand the mating edges on a flat piece of sandpaper. Test again until there is no gap (no one will notice those segments are slightly smaller). Glue the two halves together and then stack and glue up the rings. Use different colored wood for a unique effect/pattern. If you want to vary the ring diameters to give your box more form, then draw out your shape and use the calculator for segmented bowl rings at: http://www.fancygaphtrn.com/calculators/segmented-bowl-ring-calculator. A solid piece of wood is used for the base and the top.

Calendar of Upcoming Events

May 17, 2015	Bill Farny will be demonstrating bowl turning.	Bowl shaped lidded box. Demonstrator TBD **Note the date change due to Memorial weekend on the regular meeting date.**
June 28, 2015	TBD	TBD
July 26, 2015	TBD	TBD

April Show and Share


Lincoln oak clocks by Ted Laffey. One was made by bending the oak for supports; the other by bending aluminum.


Flaming walnut platter by Tom Brock.



John Buehrer turned this top along with two disks that chase each other from plans in the club newsletter from Jan 1996. Note – our web site has the newsletters from several past years. Check out this video of the top action!




Dan Burleson beaded vessels. He brought one that was in-work to show the process for beading the interior. It is turned as two "bowls" then joined with a tenon that is "one bead wide". The painted pattern from the outside is echoed on the inside before joining.

Dave Endres showed an art work that he purchased from Nick Agar that had one of Nick's trademark sunsets.




Bill Farny designed several wall hangings. They are finished with dyes and acrylics. Some are applied with the lathe spinning to fling the paint. The star is titled "Hot Texas Days".


Bob Goulding displayed a bowl turned from the Missouri Botanical Garden American Holly. He plans to sell the bowl at the gardens.




Charles Sapp turned the box after being inspired by the turnings of **Michael Hosaluk** and watching his video. You think punky wood is hard to turn; it was a real challenge getting yarn stabilized to turn a "yarn bowl". ☺


Cherry box turned by Rich Hinkebein.

Entries for the April President's Challenges – Yarn Bowl

Rich Hinkebein turned this yarn bowl.

Yarn vessel by Charles Sapp.

Yarn bowl by Michael Blankenship.

Winning yarn bowl turned by Walt Ahlgrim.

BASKET BOWLS

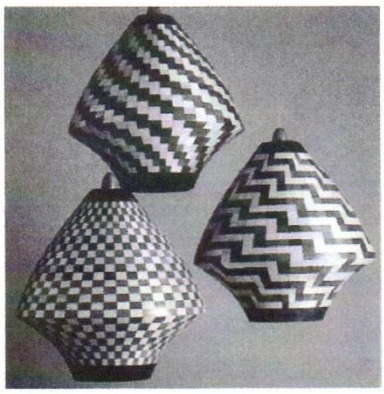
Laminated, segmented, stacked-ring bowl

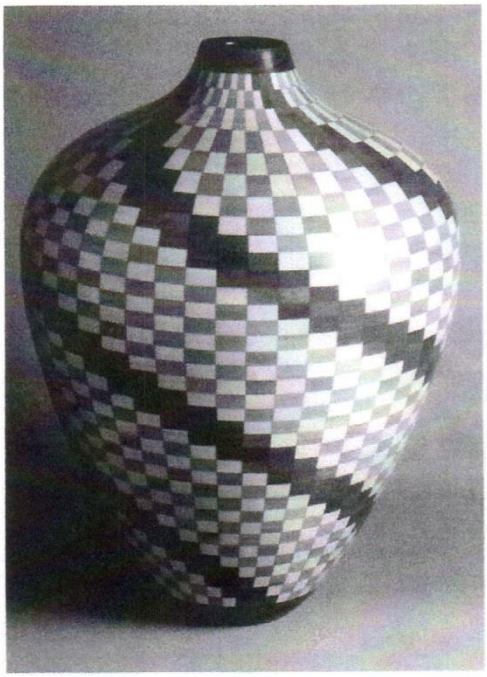
GARY JOHNSON

I HAVE BEEN EXPERIMENTING WITH "Basket Bowls" assembled from multi-colored wood laminations. The technique creates the textured look of a splint basket, but the objects are actually smooth and can be turned into everything from hanging ornaments to vessels.

To begin the bowl, which is similar to those I demonstrated at the last two AAW symposiums, you need several 1/4 x 3-inch-wide strips of wood in three different colors. I used walnut, oak and maple. To assure that all the wood is exactly the right thickness I resaw and plane it myself. Accuracy is important; otherwise you could have alignment problems later.

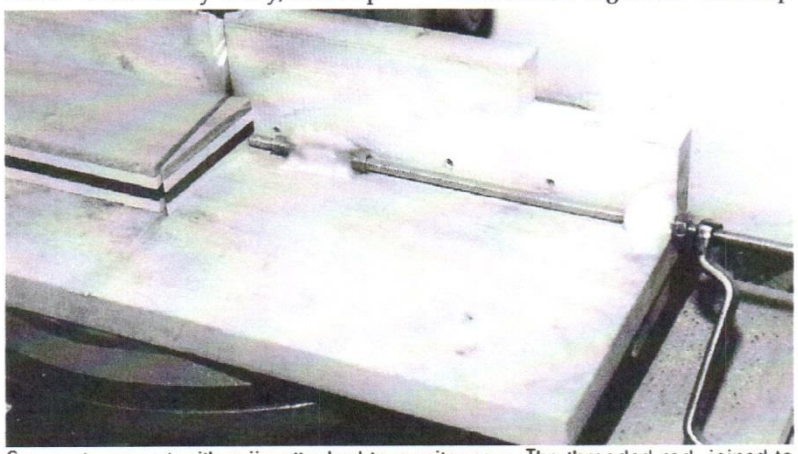
Prepare two separate four-layer laminated boards for each bowl. Each of these laminations is 3 in. wide by 13 in. long and will be cut into 24 segments, which are the actual building blocks of the bowls. I recommend either plastic resin or polyurethane glue for this operation. Use back up boards and lots of clamps to apply uniform pressure. When the assembly is dry, clean up the squeeze out and rip the sides straight and parallel.



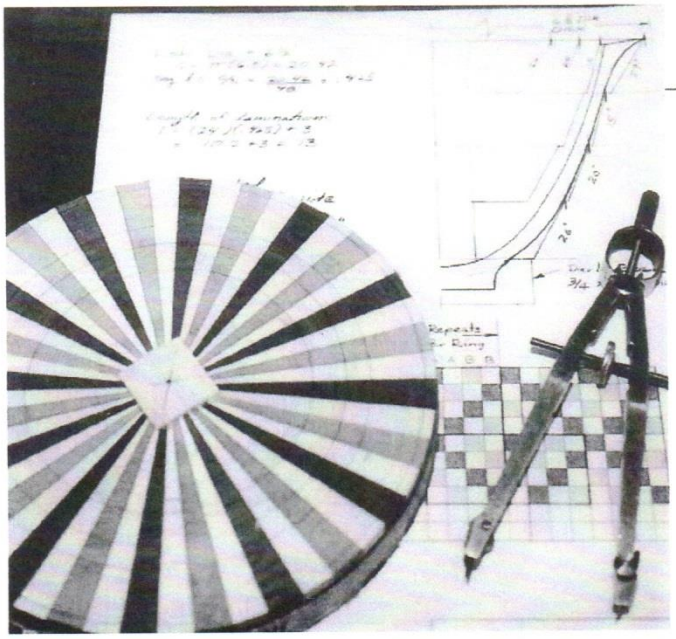


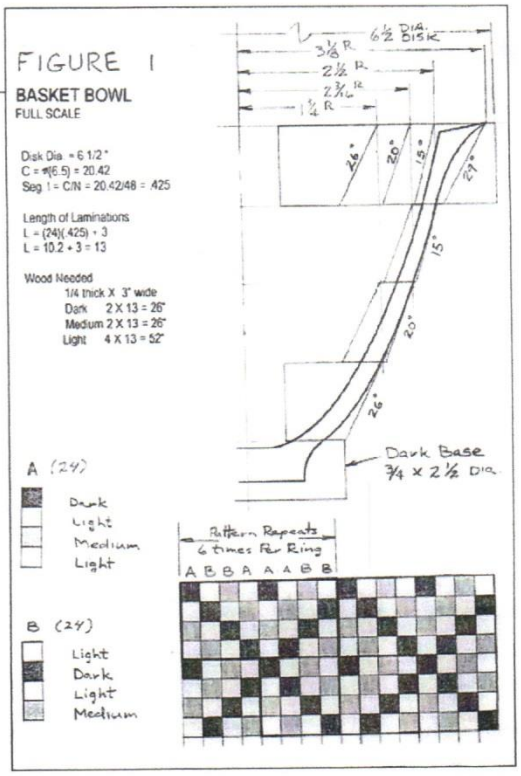
The author's basket bowl technique can be applied to any form, from a hanging ornament, top left, a tall vessel or the bowl described in the article.

Next cut the segments. This step requires great accuracy, so use a good sharp crosscut blade with a stabilizer to minimize wobble. I have used a radial arm saw, but now prefer a miter saw with a Forest Products Chopmaster blade (Forrest Manufacturing Co, Inc., 457 River Road, Clifton, NJ 07014 ; Tel: 800-733-7111)). I fitted my miter saw with a jig that relies on a threaded rod to control the width of the segments. For this bowl the width of the wide end of the segment is .425 to produce a 6 1/2-inch-diameter disk. The saw is set at 3 3/4 degrees to produce a 7 1/2-degree segment that gives 48 segments in the disk. Cut twelve segments from a piece of scrap wood, then check with a square. They should fit perfectly at 90 degrees but probably won't. Make a very small adjustment of the saw



Segments are cut with a jig attached to a miter saw. The threaded rod, joined to the jig with nuts set in thickened epoxy, controls the width of each segment.

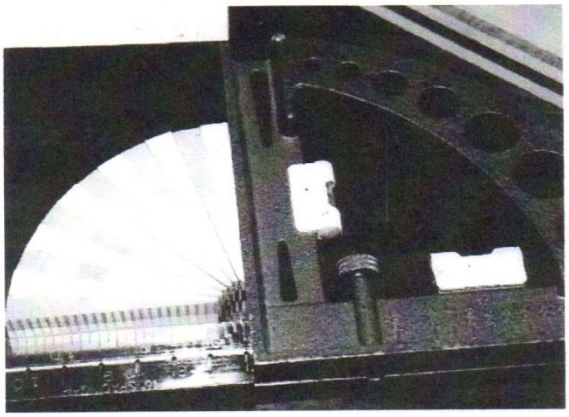




Assemble the segments in the sequence shown in the plan to produce the pattern shown in the open bowl on the facing page. As you assemble the segments to form discs, it's a good idea to number them, so you can reassemble them in the same order when you glue them up.

angle (I tap the handle with a hammer and measure a gap with a feeler gauge between the handle and a stop block that I have clamped to the bed of the saw.) Cut another twelve segments and check again. Do this until you are satisfied that they give 90 degrees Then cut the segments from your laminated boards. Check after each twelve segments to make sure that they still are 90 degrees. Adjust it needed.

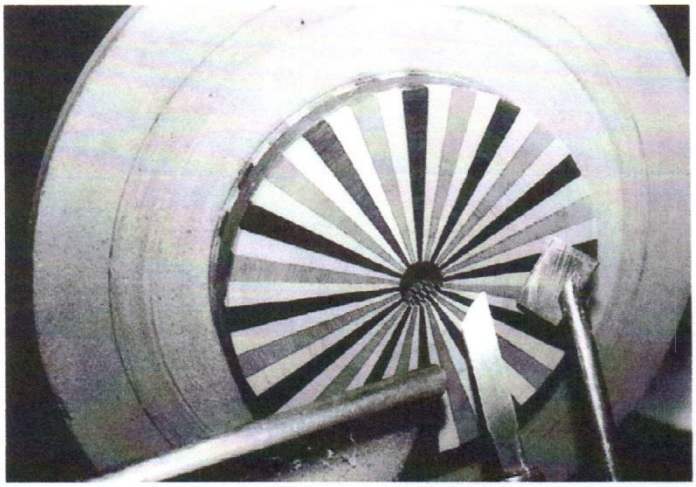
Assemble the segments in the sequence shown (Figure 1) to produce the desired pattern. Number the segments so you can get them in the same order when you glue them together. Use a metal band clamp (two or more can be joined together to get the required diameter). It usually takes between 45 minutes and 1 hour to glue up the disk, so I use a slow setting epoxy for this step. These are end-grain-to-end-grain joints, so they won't be super strong. To get the best strength I first apply a thin epoxy with a brush, then apply a thickened epoxy with a stick. I prefer silica for thickening, but other agents can be used to prevent the epoxy from being wicked into the end grain, resulting in a dry joint. Leave two opposite joints unglued so you will end up with two half discs to permit bandsawing the disk into rings. As you tighten the band clamp, work the disk to get it round, the glue lines all converging at the center. Clamp the disk between sheets of plywood to keep it flat while the glue sets up.

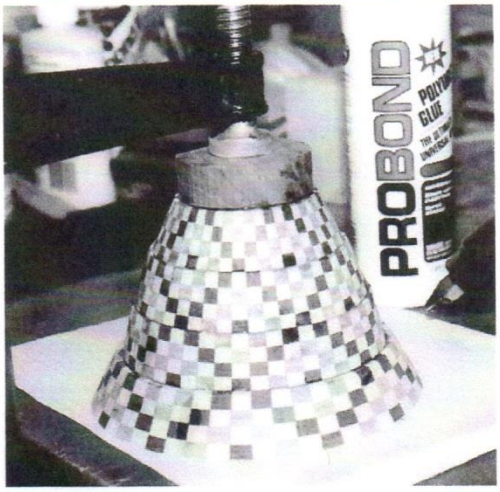


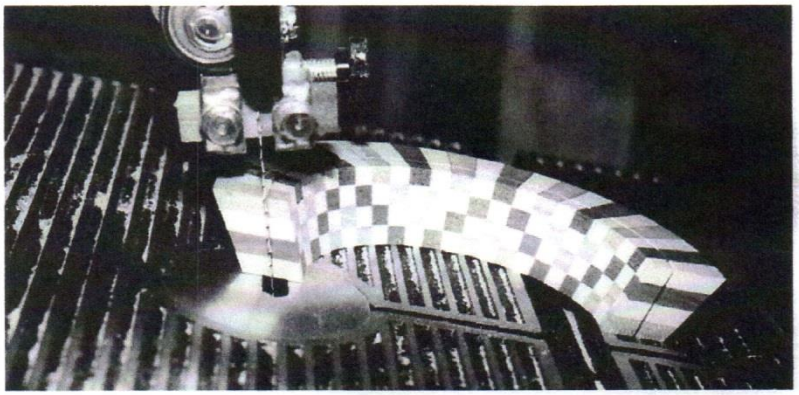
Sawn segments probably won't fit perfectly at first. Cut 12 segments and test with miter square. Adjust the saw as needed and try again until you get 90 degrees

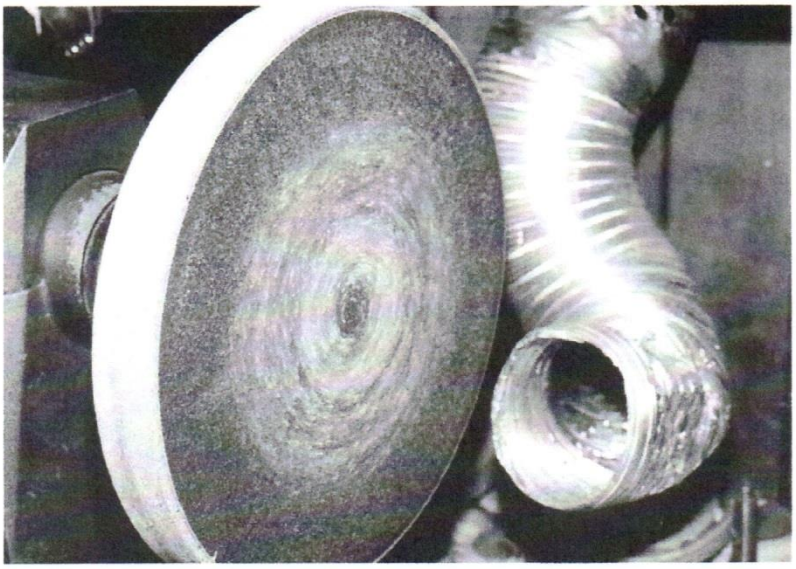
After the glue has set up, mount the disk to an MDF faceplate by running a bead of hot-melt glue around it. Face off the disk with a roundnose and sheer scraper, removing only what's needed to clean and level it. Be sure to flatten both sides of each piece. Next hot glue a small piece of thin wood to provide a center for a compass. Draw circles on the disk per the plan .

Remove the band clamp and cut the half disks into half rings . Set the bandsaw to the angles shown using a protractor. I don't trust the angle scale on my saw. Carefully cut the







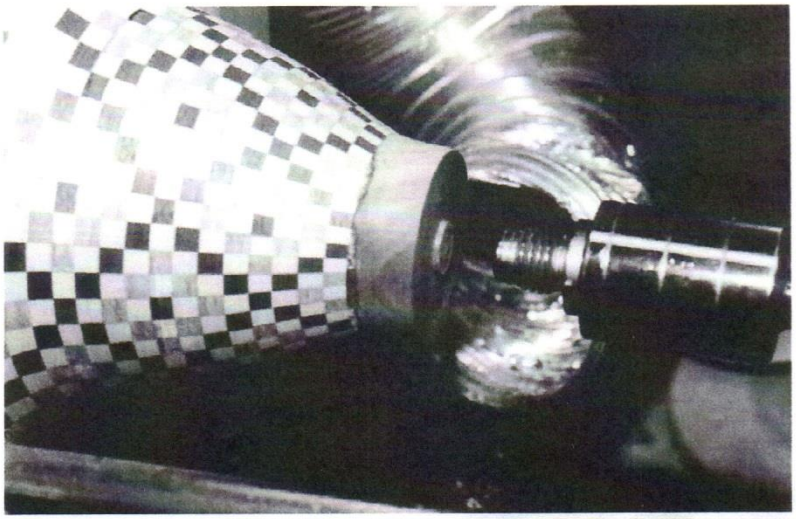


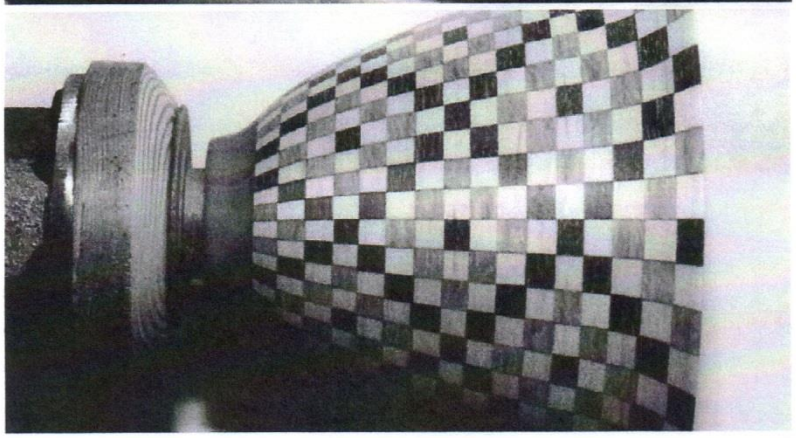
Bowl Assembly:
After the glue has dried, mount the disc to an MDF faceplate. Join the two pieces with a bead of Hot Melt glue. Then face off the disc, using a round nose scraper and a shear scraper. Do both sides.

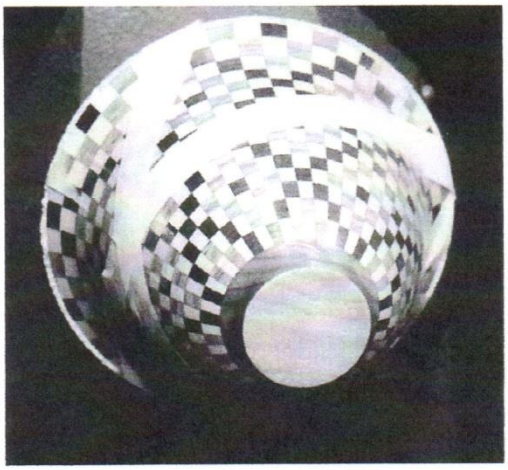
After removing the band clamps securing the half discs, band saw the rings. Set the bandsaw blade to the angles shown in the drawing. For accuracy use a protractor.
Cut on the outside of your guide lines. you can true everything when the bowl is assembled and turned.

After gluing the half rings together with fast-setting epoxy and masking tape clamps, you can level the dry rings on a disc sander. The author uses an MDF disc mounted on his lathe. The dust pick up helps remove the dangerous dust.

When the rings are finished, stack and glue them together. To align the pieces accurately and minimize slippage, from clamp pressure, the author puts four dabs of hot melt glue at each joint. The rings are permanently secured with Plastic Resin or Polyurethane glue.







After centering the bowl on an MDF faceplate, top, turn a tenon on the bottom to align the blank when it is glued onto a waste block. Finally turn the outside, then the inside.

Use a parting tool to establish the base height, as shown above, middle, then sand and finish.

Revese chuck the piece, left, to finish the bottom. The author cuts a groove into a particle board faceplate, then reinforces the jam fit with tape.

half rings. I always cut just to the outside of the lines. Glue the half rings together to form rings. I use a fast-setting epoxy for this operation. Masking tape is all the clamping that is needed. When dry, level the rings lightly on a disk sander. Mine is just a 12-inch disk of particleboard mounted on a faceplate on my lathe .

Stack and glue the rings together along with the $2^1/_2$-inch-diameter base piece, again using plastic resin or polyurethane .

Alignment is important—to help prevent slippage during clamping, I use four blobs of hot glue at each joint.

Next, center the bowl blank on the MDF faceplate and run a bead of hot melt glue around it. The outside can be rough-turned, the bottom is flattened, and a tenon is cut in order to center the bowl on a waste block. Prepare a waste block on a faceplate and glue the bowl to it with superglue. Final-turn the outside, then the inside. Establish the base height with a parting tool as shown in the photo, and then sand and finish. I like a wiping varnish finish such as Liberon Finishing Oil or Master Gel. Two coats are usually enough.

Part the bowl off. I recommend sawing off the last bit to reduce the anxiety level of this operation. Reverse-chuck the piece. I make a modified jam chuck by cutting a groove in a particleboard faceplate to fit the bowl rim. I don't trust just the jam fit, so I use masking tape or strapping tape for safety .

Finally, detail the bottom, sign it, and finish it.

It takes me about a week to make one of these bowls, so don't rush it. Have fun!

Gary Johnson, a retired aerospace engineer, specializes in segmented turnings in Bridgeton, MO.

Facebook site ● Check out the club Facebook page: https://www.facebook.com/pages/Woodturners-of-St-Louis/292734664135601 and "**Like**" the page (click on the "Like" icon) to receive updates.

If you enjoy turning wood, making things on your lathe or want to learn more about woodturning then join the Woodturners of St. Louis. Learn and share ideas with like-minded Woodturners of St. Louis. Our chapter normally meets from 1:00pm to 4:00 pm on the fourth Sunday of every month at Woodcraft Supply; 2077 Congressional Drive (Westport area), St. Louis, MO 63146. **http://www.stlturners.org**

American Association of Woodturners● WTSTL is proud to be one of 350+ worldwide chapters of the American Association of Woodturners. We encourage you to join this fine organization. The AAW is dedicated to providing education, information, and organization to those interested in woodturning. You can join the AAW at their site: http://woodturner.org/member/MemberLogOn.asp.

Membership comes with access to on-line training information and includes a subscription to the *American Woodturner* magazine. Our club is a chapter of the AAW and we encourage all club members to join the AAW. They have been publishing a great series of on-line woodturning training articles for members that are worth the price of membership by themselves. They have also indexed all of the past AAW magazine articles so you can search and find help with most any issue you may have or ideas on your next project.

Board Members

President:	Bob Goulding	636.745.2333	bobisturner@yahoo.com
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Newsletter:	Charles Sapp	636.928.0149	cwsapp@charter.net
Librarian:	Rich Hinkebein	636.332.2396	kathryna1945@yahoo.com

Questions: info@stlturners.org