

ECHOES FROM THE "BAT" CAVE

BALTIMORE AREA TURNERS

Bowl From a Board - Joe Kramer

March 2019
Volume 14, Number 3

Joe Kramer, from Chesapeake Woodturners was our demonstrator for March. Joe presented his techniques for creating a bowl from a board, and several recent variations.

Joe likes to explore variations of woods, finishes, use of dyes, and patterns, when constructing his pieces. Pictured below are some examples of the many variations Joe has produced through subtle variations.



The turnings shown on the left are all constructed from rings made of wedges. To make his bowls, Joe starts with two half circles from glued up wedges (shown below). To make a 12 inch diameter bowl, you need a 12 inch diameter circle.

The wedges in the half circles can be alternating species (right), or the wedges themselves can vary (below). The only limit is your imagination.



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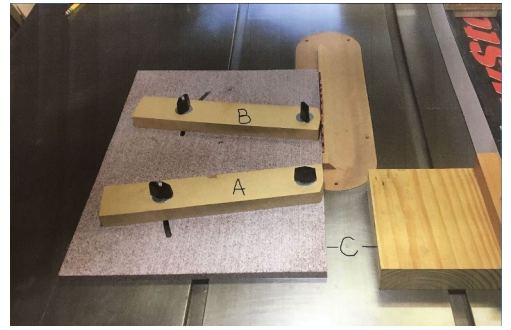
Stephen Jones



Bowl From a Board (continued)

The Wedgie Sled:

This project relies on the quality of the wedges used in its construction. The boards used to create the wedges must be prepared carefully so that the faces and edges are parallel to each other and square. Because the rings are stacked, any variation in thickness between wedges cut from alternate boards will cause gaps on glue up. Another critical factor is the miter angle of the wedges. As someone who struggles to cut two 45 degree angles for a good right angle joint, cutting 12 (or more) segments to make a perfect gap free ring seems impossible.



Enter the Wedgie Sled. The Wedgie Sled pictured on the right is setup for use on a table saw, but it works just as well on a band saw. The sled has two fences, A and B, and the stop is used to reproduce the segment width (C). The beauty of the Wedgie Sled is that accurate miters can be created simply by setting the angle between fences A and B. You can purchase wedges that are cut to very accurate angles to setup the sled. The simplest way to get started is to use the 30 degree angle of a drafting triangle that can be found at any craft store. A 30 degree wedge can be used to produce a 12 segment ring.

When cutting wedges, it's best to register the same edge of the board against each of the stops. First against stop A and cut flush. Then against stop B with the width (C) set by the stop on the fence.

Determine wedge size:

To make a 12 inch diameter bowl using this method, you want the board(s) you are using for the wedges to be under 6 inches (the radius of the bowl). A board width of 4 1/2 to 5 inches works well and will make wedges nearly the full radius of the desired bowl. Don't worry about the hole in the center for now.

The question is what width does the segment (C) need to be to make a 12 inch diameter circle. There are complicated formulas that involve trigonometry and math, but for the rest of us, there are tables!

Following this write up is a table from the ACC website for determining the segment width for various diameters and number of segments. From the table, for a 12 segment, 12 inch diameter ring, the width of each segment should be 3 3/16 inches.

Working with wedges:

Glue up the wedges into two half circles. Joe uses Titebond 2 glue for his glue up. When the half circles are glued up, mark one wedge as the "keystone" wedge. See the 18 segment wedge example to the left. This will allow for the rings to be oriented exactly as they were originally when the bowl is glued up.

Now, on the band saw, tilt the table to 45 degrees and cut rings, each 3/4 " wide from both half circles. When complete, glue up each corresponding half circle ring to make a set of concentric rings (below).



Transfer the "keystone" mark to the outside edge of each circle. This will serve as a visual reference as the layers are glued together to form the bowl blank.

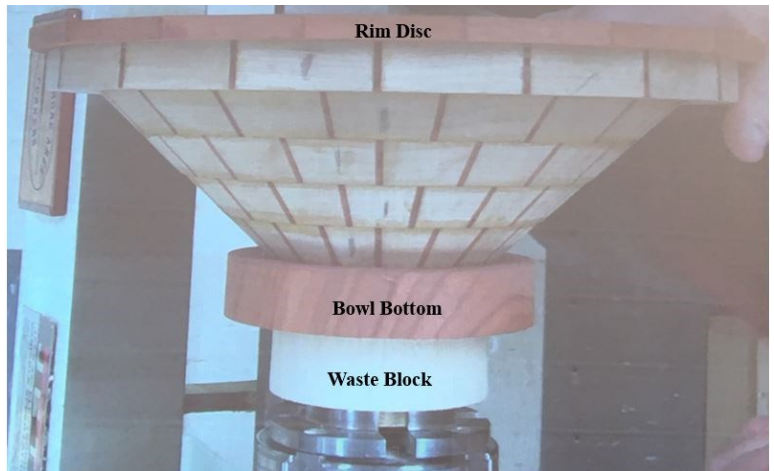


Bowl From a Board (continued)

Assemble the bowl blank:

To the right you can see a glued up bowl blank mounted on the lathe. A waste block is used to hold the bowl blank in the chuck. A solid disc of wood is glued to the stack of rings to form the foot and bottom of the bowl. A matching ring is used for the rim of the bowl.

Between the bowl bottom and the rim are the rings made from the wedges. You can see the “keystone” mark on the outside edge of the bowl.



To the left is a top down view into the bowl blank. You can see the bowl bottom at the very center, visible through the center of the smallest ring.

Turn the bowl as you would any other. After parting off from the waste block, finish the foot.

Apply the finish:

After sanding, Joe uses Liberon oil finish followed by the Beale Buffing system. It will not take a lot of Liberon oil, due to the way the wedges are glued up, there is very little end grain exposed.

Summary:

It's difficult to describe segmented turning in just a few pages. Thank you to Ron Ford for answering many of my questions to help with this newsletter. Ron is a great source of information on the subject for anyone interested in learning more.

There is a lot of information on segmented turning and information on the construction and use of the Wedgie Sled on the Seg-Easy website (www.segeasy.com).

You can see an earlier presentation Joe made at the Mid-Maryland Woodturners Club on YouTube (<https://youtu.be/iOptCPuY2Lo>)

Joe was generous enough to donate a wedgie sled, the bowl blank pictured on this page, and several kits (including those pictured below) to the club. Look for these items to be offered in special raffles at upcoming meeting. If you see Joe at a future meeting, please take the opportunity to say thanks.



Bowl From a Board (continued)

Segment Edge Length Estimation Table

Ring Diameter	Number of segments				
	6	8	12	16	24
Segment Edge Length					
1	9/16	7/16	¼	3/16	1/8
1.5	7/8	5/8	3/8	5/16	3/16
2	1 1/8	13/16	5/16	3/8	¼
2.5	1 7/16	1 1/16	11/16	½	5/16
3	1 ¾	1 ¼	13/16	5/8	3/8
3.5	2	1 7/16	15/16	11/16	7/16
4	2 5/16	1 11/16	1 1/16	13/16	½
4.5	2 5/8	1 7/8	1 3/16	7/8	9/16
5	2 7/8	2 1/16	1 5/16	1	11/16
5.5	3 3/16	2 ¼	1 ½	1 1/8	¾
6	3 7/16	2 ½	1 5/8	1 3/16	13/16
6.5	3 ¾	2 11/16	1 ¾	1 5/16	7/8
7	4 1/16	2 7/8	1 7/8	1 3/8	15/16
7.5	4 5/16	3 1/8	2	1 ½	1
8	4 5/8	3 5/16	2 1/8	1 9/16	1 1/16
8.5	4 15/16	3 ½	2 ¼	1 11/16	1 1/8
9	5 3/16	3 ¾	2 7/16	1 13/16	1 3/16
9.5	5 ½	3 15/16	2 9/16	1 7/8	1 ¼
10	5 ¾	4 1/8	2 11/16	2	1 5/16
10.5	6 1/16	4 3/8	2 13/16	2 1/16	1 3/8
11	6 3/8	4 9/16	2 15/16	2 3/16	1 7/16
11.5	6 5/8	4 ¾	3 1/16	2 5/16	1 ½
12	6 15/16	5	3 3/16	2 3/8	1 9/16
12.5	7 3/16	5 3/16	3 3/8	2 ½	1 5/8
13	7 ½	5 3/8	3 ½	2 9/16	1 11/16
13.5	7 13/16	5 9/16	3 5/8	2 11/16	1 ¾
14	8 1/16	5 13/16	3 ¾	2 13/16	1 13/16
14.5	8 3/8	6	3 7/8	2 7/8	1 15/16
15	8 11/16	6 3/16	4	3	2
15.5	8 15/16	6 7/16	4 1/8	3 1/16	2 1/16
16	9 ¼	6 5/8	4 5/16	3 3/16	2 1/8
16.5	9 ½	6 13/16	4 7/16	3 5/16	2 3/16
17	9 13/16	7 1/16	4 9/16	3 3/8	2 ¼
17.5	10 1/8	7 ¼	4 11/16	3 ½	2 5/16
18	10 3/8	7 7/16	4 13/16	3 9/16	2 3/8
18.5	10 11/16	7 11/16	4 15/16	3 11/16	2 7/16
19	11	7 7/8	5 1/16	3 ¾	2 ½
19.5	11 ¼	8 1/16	5 ¼	3 7/8	2 9/16
20	11 9/16	8 5/16	5 3/8	4	2 5/8

Turning For The Troops:

For anyone working on, or thinking of working on our club service project. What follows are the actual instructions for the Slimline Pen kit. Please see Tom Szarek at an upcoming meeting if you would like to contribute to the project.

WOODCRAFT®

77A36

3/4/2015

Slim Style Pen



Product: #123052, #123053, #123059, #123060, #123080, #123087, #123320, #123325, #123330, #123335, #124637, #124638, #124644, #124645, #124651, #124658, #141655, #141656, #141657, #142414, #142415, #142416, #142505, #142506, #142507, #147074, #147075, #148778, #822947

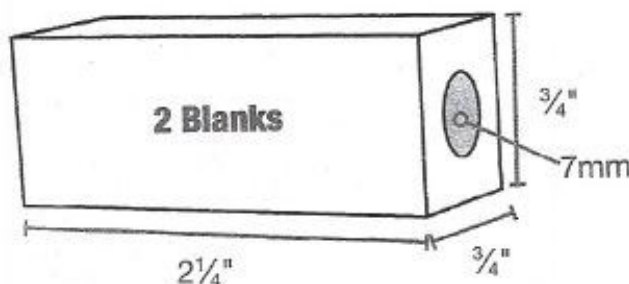
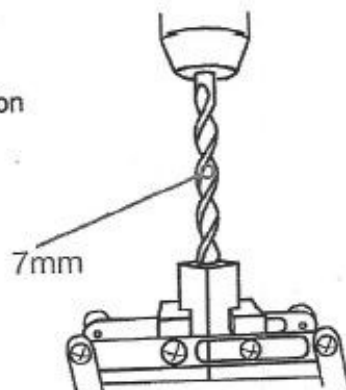
From Setup To Sanding:

These are the supplies we suggest you have on hand to complete this pen kit:

- ☐ 7mm Pen Maker's Bit
- ☐ 2 - 3/4" x 3/4" x 2 1/4" Pen Blanks
- ☐ Pen Mandrel
- ☐ Slim Style Bushings (06R03)
- ☐ Thick CA or 5-Minute Epoxy
- ☐ Drill or Drill Press
- ☐ Sandpaper/Micro-Mesh
- ☐ Barrel Trimmer
- ☐ Pen Press
- ☐ Eye & Ear Protection
- ☐ Dust Mask

Cutting & Drilling Blanks:

Note: Additional length has been added to the overall length of the blank to accommodate for squaring the ends of the blank.

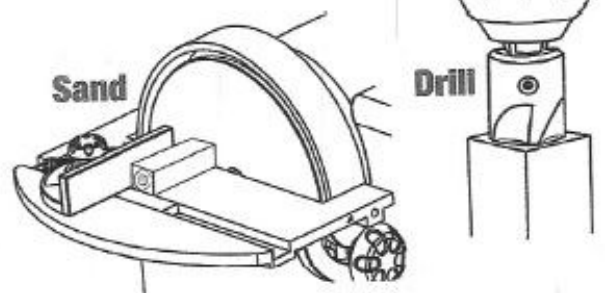


Gluing Blanks to Tubes:

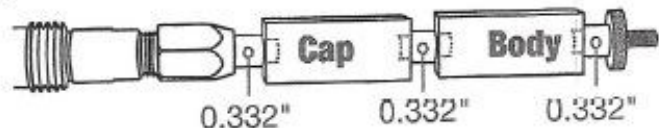
Rough the entire surface of the tube using 180-grit paper. Next, using either a thick CA or 5-Minute Epoxy, apply adhesive to both the tube and the inside of the blank. To secure the brass tube be sure to rotate the tube as you insert it into the blank. This will help ensure even coverage of the adhesive and a much more secure bond.

Squaring the Blank to Length:

When squaring the blanks to length work only to the brass, not beyond. Removing brass will affect the overall length of the blank which is critical to the proper operation of the pen.



Mandrel Preparation:

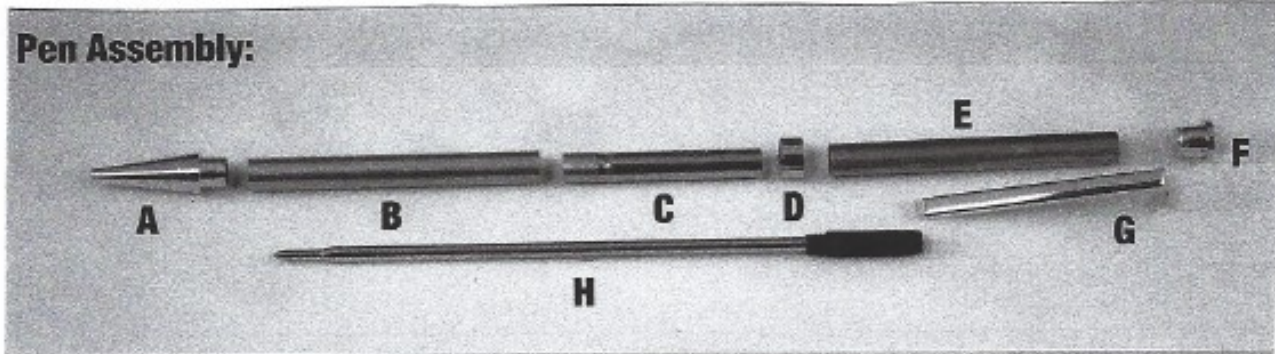


Turning & Finishing the Blanks:

Turn the blank to your desired profile, leaving the blank slightly proud of the bushings. With the lathe spinning, begin sanding with 120-grit paper, and progress through the finer grits, finishing at 320-grit. Once finished with sanding, apply a finish of your choice.

Turning For The Troops (continued):

Pen Assembly:



Pen Assembly:

Cap:

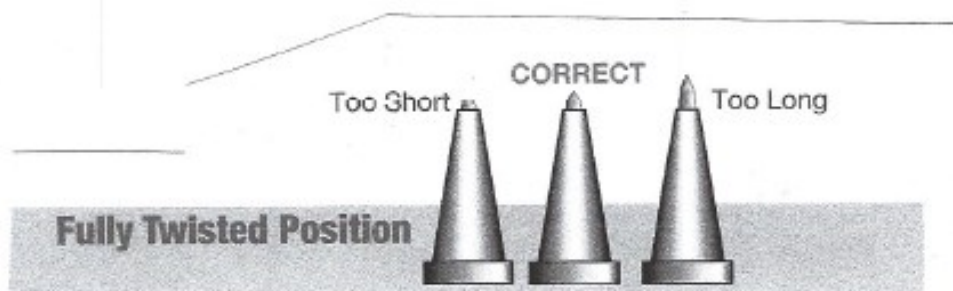
- ☐ Slide Clip (G) onto the post of the Finial Cap (F) and press into one of the open ends of the Cap (E).

Body:

- ☐ Press Nib (A) into one end of the Body (B).
- ☐ Next press the Twist Mechanism (C) brass end first just to the second ring. While pressing the Twist Mechanism into place, test the position by extending the pen tip and noting its location with respect to the nib. Refer to the image below for the correct position.
- ☐ To test the extension/retraction of the refill tip, install Ink Refill (H) and rotate the twist mechanism and note the position of the Ink Refill in the extended/retracted position. This is a trial and error process so take your time as this may require several attempts to get correct.
- ☐ Once you are satisfied with the position of the ink refill slide the Center Ring (D) over the twist mechanism and join the two sections, pressing together by hand.

Additional Notes on Assembly Process:

- Some refills have a protective coating on the tip that has to be picked off.
- Press the twist mechanism into the pen body to the point where the brass and nickel sections meet. Check using the drawing below and continue until the middle position reached.
- The refill threads into the end of the twist mechanism



The President's Turn



Hello fellow BAT Members – I am pleased to report that our membership for 2019 now stands at **61**. This is a high-water mark over previous years and it is very satisfying to see the club grow. That said, I'd like to appeal to everyone to take a more active part. While a dozen of us "manage" the club as the Board of Directors, we count on everyone to play a role. Here are some possible suggestions:

-See an article that might be of interest to others? Please bring it to a meeting, or better yet, email it to Scott Bleakney (scott.bleakney@yahoo.com) for inclusion in the next "Echoes from the BAT Cave" newsletter

-Find a new tool, finishing product, sanding product, etc. that may be helpful to others? Same as above please bring it up at a meeting or pass the details to Scott.

-Do you have a skill you'd be willing to share or demo? Please let Ed Cohen (polodoc@erols.com), our Program Director, know.

-Participate in the *Turning for the Troops* program. We have an aggressive goal we are hoping to meet by November 11, Veterans Day. I believe that even if you are not a veteran yourself, you have a family member or friend who is and will understand how meaningful even such a small item of thanks will mean to someone serving our country at home or abroad.

-An even easier one that everyone can participate in is to help with cleanup and repacking of gear at the end of each meeting. It seems like the same 5 or 6 people do that job every month. As the saying goes, "many hands make light work". Please stick around a few extra minutes and help sweep up the room and get the gear back in our storage closet down the hall.

Thanks for thinking about ways to can join in.

Looking forward to seeing everyone at future meetings and events. We have a lot coming up and want it to be meaningful for everyone.

Be safe!

Ron Ford

Tip of the Month



Haste makes waste. Let's expand this to turning a goblet.

You have just reached the point of finish turning the inside of the goblet and everything has progressed very well. Hold on, if you proceed turning you have lost the last chance to finish and sand the inside and outside of the goblet safely and securely.

Waiting till the end just prior to or just after parting off, means you have to deal with a thin stem which may easily break. Many projects have this sort of issue built in. The take-away is carefully plan the project prior to actual start.

Louis Harris

Mentoring

What's on Tap for April?

This month club member Chuck Cohen will be giving us a demonstration on "Embellishing Turned Bowls with Casting Resin". Chuck will demonstrate basic bowl turning technique and then show us how we can further enhance the piece using casting resins. He has assured me that no special tools or equipment is required and he feels the techniques he will be demonstrating are well within the skill sets of most club members.

Chuck has become an expert in resin casting and has agreed to bring along some of his more advanced pieces to show us what can be done with a little practice and effort. I'll be looking forward to seeing you on April 10th.

Ed Cohen

Program Director



Interested in sharing a tool, technique or project with the club? Demonstrate your project-in-progress at an upcoming BAT meeting. Contact program director Ed Cohen for details.

2019 President's Challenge

The first President's challenge for 2019 is to turn 10 pens for our *Turning for the Troops* service project.

The **second challenge** will be to prepare a finished piece from an item won from the monthly wood raffle. There is no limit on what the item may be, just that the material came from the monthly raffle. Get your creation ready for the May Show and Tell meeting!



Want to build your woodturning skills?

The American Association of Woodturners (AAW) strives to deliver the publications and services that our members need to grow, connect, explore, and thrive in the areas of woodturning that are important to them. With nearly 16,000+ members and 360+ chapters internationally, AAW's many resources, including our award-winning *American Woodturner* journal, help our members to learn, create, and connect.



By signing up for a complimentary Guest membership, you can have limited access to a sampling of AAW resources for a full **60 days**. You'll be able to explore what the AAW has to offer, kick our tires, and hopefully decide to become a full-fledged, paid AAW member to benefit from everything the AAW has to offer.

Visit us at woodturner.org

Baltimore Area Turners Meetings

April 10 - Chuck Cohen will demonstrate how to make easy resin insets in bowls.

May 8 - Show and Tell

June 12 - Steve Haddix - Embellishment

July 10 - Renaissance Woodworker

August - Picnic

The club meets every month on the second Wednesday of the month at 7:00 pm Our meetings are held at the Boumi Temple located at:

5050 King Avenue
Baltimore MD 21237-3325

Drive around to the parking lot at the back of the building and enter thru the set of glass doors.

BAT Classifieds

Stay tuned for updates in the April newsletter...

If you have items for the classifieds, please send them to me at scott.bleakney@yahoo.com

- Thanks

BAT is a local chapter of the American Association of Woodturners (AAW) which serves the Baltimore metropolitan area. A wide range of skills and interests are represented by our members. Work ranges from small utilitarian project to galley art and includes pen making, bowls and platters, hollow forms, small projects, furniture spindles and architectural work. We are fortunate to include professional turners and published authors among our members. Membership is open to anyone with an interest in woodturning, and