

NOTES FOR COMPLETING CURVED SEGMENTED BOX KITS
For Help Call Lou Boudreaux 972-742-6096

You have adopted a seven ring Beads of Courage box kit composed of the following elements:

- One 6 ¾" diameter Top Ring, with twelve 1 ¼" wide segments
- Two circular pieces for the box Lid and Base
- A "Beads of Courage" logo bead to put in the top
- Four 8" rings, 1 1/8" wide segments, each composed of 6 light and 6 dark pieces
- Two 7 ½" rings, 1 1/8" wide segments, each composed of 6 light and 6 dark pieces

1. Glue and clamp the 12 segments of each ring. (There are several techniques for doing this). Titebond III is recommended since it is waterproof. Use a hose clamp for each ring to provide uniform tightening of the segments, Figure 1. Approximately 25" of hose clamp is needed for a ring. After gluing and clamping a ring, make sure the bottom surface of the ring is flat and clean off any excess glue from both sides of the ring. Let the clamped individual rings cure overnight.

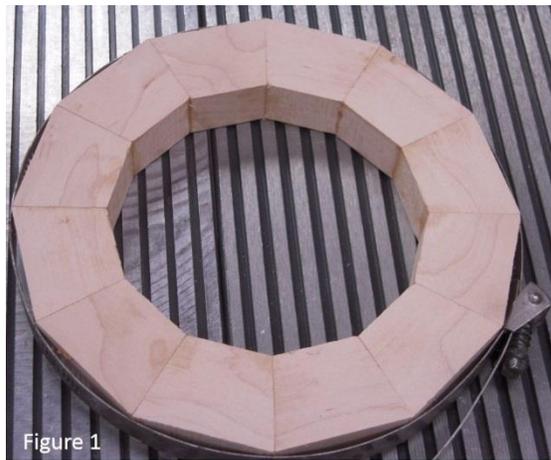


Figure 1

2. After the glue is cured you want to make the top and bottom of each ring flat and parallel. This can be accomplished with a drum sander, disc sander, disc sander made to attach to the lathe, or by hand using a flat surface to which an 8.5 by 11 inch piece of 150 or 180 grit is attached. My preferred technique is to sand one side flat; then with the ring mounted in Jumbo Jaws chuck, turn the other side of the ring flat and parallel. While the Top Ring is still in the Jumbo Jaws, the inside surface can be smoothed and rounded. Once you are convinced each ring is flat & smooth enough to join, you are ready to glue the rings together.

3. There are several ways the rings can be glued together. The method I prefer is to assemble half of the rings on the Base and the other half to the Top Ring, essentially making two segmented bowls that can later be glued together. It is a lot easier to shape the interior of each bowl than to hollow out a seven ring box. For gluing the

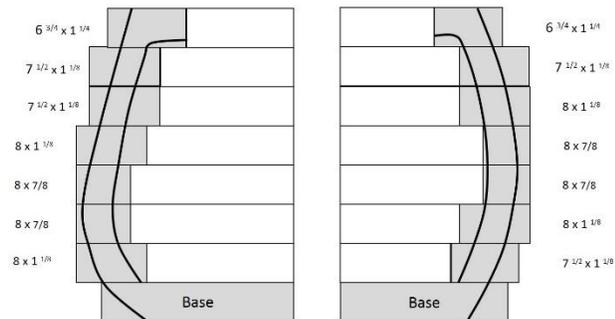


Figure 2a

(Option 1, Pear Shape)

(Option 2, Apple Shape)

rings together, the Base is held with the exterior jaws of a chuck, and the inside of the Top Ring is held in Jumbo Jaws. If you do not have Jumbo Jaws, use a faceplate and glue block.

4. You can make two shapes with this kit and two different segment patterns. Figure 2b is a drawing showing how to stack the rings for either a Pear or an Apple shaped box. Figure 2a shows how to stack the rings to obtain either a staggered effect of stair step effect.
5. Mount the Base to the lathe using Jumbo Jaws with the jaw buttons on the outside of the ring. Turn the bottom flat (check with a straight edge) and cut a mortise for mounting the Base to a chuck, Figure 3a.



Figure 2b
Before you remove the Base from the Jumbo Jaws, add any decoration or

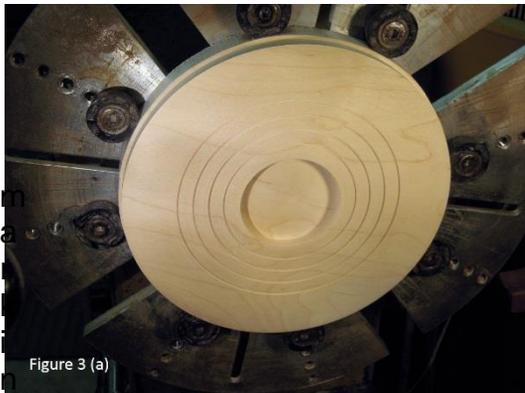


Figure 3 (a)

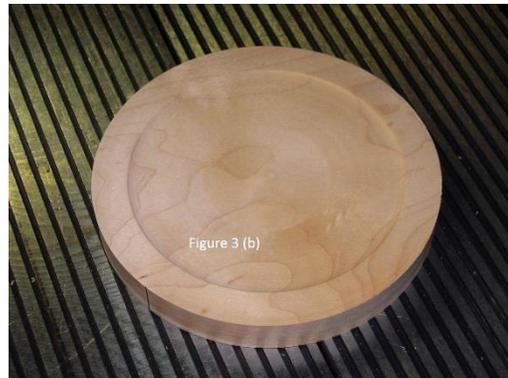


Figure 3 (b)

g
, and sand with 180 grit sandpaper, then finish the bottom. Remove the Base and mount it on the exterior jaws of your chuck. Make sure the Base is properly seated before tightening the jaws. Flatten the Base and turn the edge to the approximate diameter of the rings. Shape inside of Base as desired, Figure 3b.

6. The rings can be glued to the Base either on the lathe, or in a separate clamping fixture. Before you start to glue the rings together, align the rings in pattern you have selected (stepped, stacked, etc.). Number

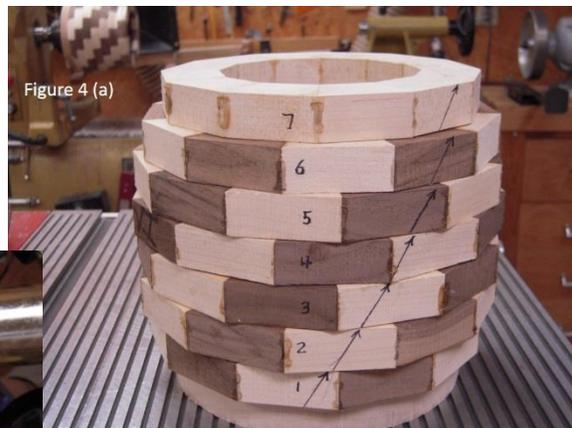


Figure 4 (a)

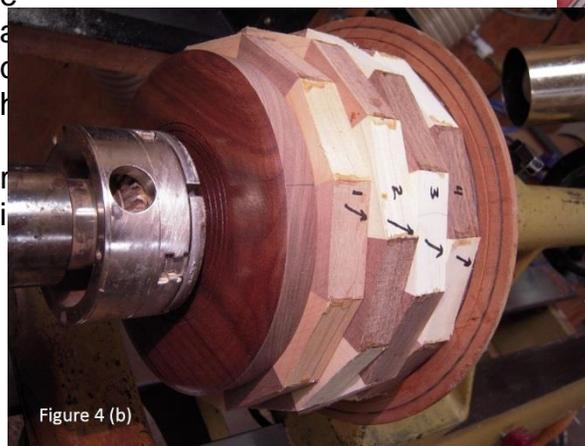
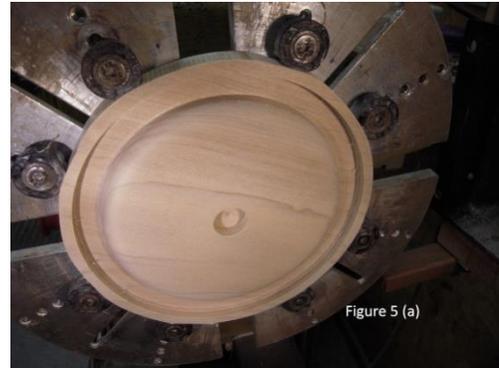


Figure 4 (b)

ng and draw a line to show how the rings should be oriented, Fig 4(a), this is important to ensure the rings are aligned properly as you assemble the box. Apply glue to one side of the first ring and glue it to the Base. Take care to accurately center the ring on the Base. A faceplate mounted to the live center can be used to apply even pressure to the ring, Figure 4(b). The circles on the faceplate help get the ring properly centered. Spin the assembly to check how accurately the ring is centered; adjust until the ring spins smoothly. Let the ring cure for about 10 minutes then glue the second ring onto the first, making sure glue joints are staggered and the pattern is aligned correctly. Let the second ring cure for 10 minutes and then continue with the next ring. Let the glued assembly cure overnight.

7. Mount the Top Ring to the lathe using Jumbo Jaws with the bottom surface facing out. Jaw buttons should be on the inside of the ring with the ring tight against the jaw face. The Top Ring will not be removed from the Jumbo Jaws until the top half of the box is cut to mate with the bottom half. Apply glue to one side of the next ring and glue it to the Top Ring. Take care to accurately center and position the ring on the Top Ring. Continue the process described in Step 5 until all the rings are attached.
8. Mount the Base assembly to the lathe. Flatten the top surface to ensure it is parallel with the Base (removes any variation caused by alignment). Next, turn the inside surface until all the corners have been removed from the rings and there is a smooth curve to the base. Turn the outside surface to roughly parallel the inside surface and the wall thickness is about $\frac{1}{2}$ ". Measure the outside and inside diameters and remove the chuck from the lathe. Mount the top half assembly on the lathe. Flatten the bottom surface and turn the inside and outside until the inside and outside diameters the same way as the Base assembly (note: do not try and turn the Top Ring round at this time). It is important for the inside diameters of the rings that interface between the Base assembly and the top half are the same, the outside diameters are not critical since the outside shape will be turned after the halves are joined. When the inside diameters are the same, sand the inside of the top assembly with 180 grit sandpaper, then remove from Jumbo Jaws.
9. Mount the Base assembly and sand the with 180 grit sandpaper. Glue the top assembly to the base assembly. Center and make sure glue joints are staggered and the pattern aligned correctly. Use faceplate mounted to the live center to apply even pressure to the ring. Spin the box to check how accurately the halves are centered; adjust until the ring spins smoothly. Let sit for a few minutes, back off the faceplate and remove excess glue from the inside joint. Reapply faceplate pressure and allow to dry overnight.
10. Finish shaping outside surface of the box with a smooth transition between bottom and top surfaces. Turn wall thickness to about $\frac{5}{16}$ ". Flatten the top surface of the box and re-cut the box opening to ensure it is centered. Clean up and sand the inside glue joint. Final sand exterior of box with 320 grit sandpaper. Finish interior and exterior surfaces of the box. Remove finished box from chuck.

11. The box lid can be made in many ways. I prefer using Jumbo Jaws to shape and finish the top half and Stepped Jaws to make the bottom half. Mount the lid blank in the Jumbo Jaws and turn the top surface flat. Measure the diameter of the box opening and add $3/8$ "– $1/2$ " to determine the diameter of the lid, mark the diameter on the lid. Cut the outside diameter of the lid by



groove around the line. Cut the groove about $1/2$ " deep, this will provide tool space for shaping the lid's outside edge. Shape the lid top and edge, Figure 5(a). Drill a $3/4$ " diameter hole, $3/8$ " deep, for the pull. Sand top of lid to 320 grit and finish. Remove the lid from Jumbo Jaws, use bandsaw to separate the groove from the lid, Figure 5(b).

12. Reverse the lid and mount to the lathe using Stepped Jaws chuck in the $3/4$ " hole on the Top. Use tail stock to apply sufficient pressure to press lid flat against Stepped Jaws. Tighten jaws and spin to verify top is flat. Measure the diameter of the box opening and mark this diameter on the bottom of the lid. Cut outside this line with Bedan or parting tool until only the finished portion of the lip of the lid remains. Use a skew to fine cut the edge of lid bottom, check frequently, until it fits the box opening. Lid should be easy for a child to remove, not a "woodturners fit". Shape the remainder of the lid bottom, final sand with 320 grit sandpaper, and finish.
13. Make a pull for the lid. Put the "Beads of Courage" logo bead provided with your kit in the pull. If you prefer, you can;burn or engrave "Beads of Courage" on the lid of the box.

If you have any questions or need help, do not hesitate to call. You are welcome to come to my shop (516 Vernet St., Richardson TX) for assistance or need to use my drum sander or band saw. Hope you get as much satisfaction from making Beads of Courage boxes as I do.

Woodworker Guidelines

Beads of Courage has had an increase in interest from generous wood artists kind enough to donate their bowls/boxes. With our Beads of Courage program growing exponentially, there is an even greater need for wooden bowls and boxes. Children and young adults are finding strength in a whole new way by receiving handcrafted, beautiful bowls. The gift of having a safe place to keep hard-earned Beads of Courage can bring a sense of comfort to the heart and is a beautiful way to honor the strength and courage of children battling serious illness.

Bead Bowls/Boxes Guidelines:

- Beads of Courage members may receive thousands of beads. It is desirable for your boxes to hold them all. As a result, turned or rectangular lidded boxes need to be large. Larger is better! Recommended interior dimensions for turned boxes are: 6" diameter (5" minimum), 5" height (4" minimum). Recommended interior dimensions for flatwork boxes are: 4" x 6" x 4".
- Box bases should be wide enough so the box is stable and does not tip over easily. Lids for Beads of Courage boxes should be easy for small or ill children to remove or lift. Any finials should be easy for a small child to grasp and not too elaborate so they don't break. Avoid excessively elaborate designs that may easily break or be damaged; remember, hospital rooms have limited storage space.
- Finishing of boxes is extremely important! Beads of Courage members who receive these boxes are susceptible to germs/infections/mold. Bowls that have not been properly sealed can harbor mold. Please take the time to ensure you are using a safe finishing process that does not contain toxic materials. Also do not use finishes like linseed oil that take a long time to outgas.
- All kinds of wood are beautiful! Please refrain from painting Beads of Courage boxes. Instead, highlight the beauty of the wood with clear varnish, a stain, and/or burning.
- If possible, please purchase the Woodturner Donation Incentive Package. The package includes personalized Woodworker Artist cards and individual Beads of Courage® ceramic logo beads. Many woodworkers like to use the Beads of Courage® ceramic logo bead in their design (20 beads for \$25 with free shipping). If this is not possible, you can find a way to engrave, burn or letter "Beads of Courage" onto the lid or side of the box. Designed specifically for your donation, each logo bead purchased comes with a Woodworker Artist card that includes your personal signature. Ceramic logo beads can be purchased at www.beadsofcourage.org --> Artists --> Information for Woodturners.
- It is nice if you can personalize your donation. Marking your name or initials, type(s) of wood, and date on the box bottom is one way. It is also nice to include a personal note of encouragement, business card, etc. inside the box.



Meet Caroline...

a member of the Beads of Courage Cardiac Program.
Her bowl was made by MN Woodturner, **Mark Parranto**.



Logo Bead:

Please purchase Beads of Courage Logo Beads to include on your bowl! This bead can be attached anywhere within or outside the bowl. You can purchase these beads by going to Beadsofcourage.org ⇨ Artists ⇨ Information for Wood Turners.

Process for Donation:

There are two ways to donate your handmade treasure boxes.

1. Mail your donated boxes directly to Beads of Courage, Inc. We will ensure they reach a hospital or member in need of a treasure box.

Mail To:

Beads of Courage, Inc.
Attn: Woodturner Treasure Box
3230 N. Dodge Blvd. Suite J
Tucson, AZ 85716

2. Donate your boxes to your local hospital. You are **REQUIRED** to contact Beads of Courage, Inc. **DIRECTLY** and **NOT** the hospital in order to do this. You **MUST** wait for approval before delivering your boxes. Please understand that even though Beads of Courage is serving 240 member hospitals, we are not in every state, so delivering to a hospital may not be possible. We will do our best to accommodate your donations directly, but you are always welcome to donate to the Beads of Courage, Inc. International Headquarters in Tucson, AZ. We appreciate your understanding.

Steps for donating to your local hospital:

1. Contact the Encouragement Program Manager, Angeline Fahey at angeline@beadsofcourage.org, with a request to donate your boxes to a local hospital in your area.
2. Include number of boxes, town of residence, and date on which you would like to deliver boxes. Please give at least one month notice.
3. We will contact our Program Manager, Beth Moneck, who will locate a member hospital in your area to accept your donated boxes.
4. We will notify you of the date of delivery.
5. We ask that you take a picture of your donated goods before giving them to the hospital.
6. Meet in the lobby of your local hospital at the date and time given by the Program Managers of BOC and deliver your boxes to the Child Life Specialist or assigned individual.
7. Hospital Staff will hand deliver your boxes to children and young adults in the Beads of Courage program.



We sincerely appreciate the caring and artistry put into these one-of-a-kind works of art. Thank you for the significant effort we know goes into making these wonderful boxes!

Questions, comments and pictures may be sent to angeline@beadsofcourage.org