## Woodturning Design Project

## **Christmas Ornaments • Part 1** Make the Icicle and Finial

by Johnny Tolly

hristmas ornaments have become a tradition among turners, and everyone who creates them has their own special procedures. In this two-part article, I will show you how I make my ornaments. First, we will concentrate on making the icicle and the top button finial, since that is sometimes the hardest part if you don't have a lot of spindle-turning experience. The second part of the article (in the next issue) will deal with making and hollowing the globe, and doing the final assembly. I hope this will spark your interest and persuade you to try making some for your tree (and possibly for friends and family).

I like the icicle on my Christmas ornaments to be between 6" and 8" long. You may want to make yours shorter or longer depending on the size of the ornament body. For the Christmas ornament fea-



tured here, I decided to make the 8" icicle first and then make the button finial. Of course, you could reverse the process. SUPPLIES Wood: wood blanks of choice, such as maple ball blanks\* or burl mesquite Tools: lathe with assorted chisels, including 1/4" skew and small parting tool; Stebcenter or spur drive; 4-jawed chuck with No. 1 jaws or equivalent; shopmade "story stick"; shopmade tenon gauges; pin vise with small drill bit; awl; calipers Eye screw\*\* Assorted grits of abrasive paper Spray-on lacquer or finish of choice Small wire for hanging

\* Available from Gone Batty, RR 2, Box 311, Leona Road, Troy, PA 16947; website: www.gonebatty.net.

\*\* Available from Meisel Hardware Specialties, PO Box 70, Mound, MN 55364-0070; phone: 800-441-9870; website: www.meiselwoodhobby.com; order: eye screws P/N, #7416 (pkg of 20–\$4.00 or pkg of 100–\$14.50).

Please refer to all manufacturers' labels for proper product usage.

**Step 1.** Cut the wood to about 3/4" to 1" square by about 9" long (the extra wood will be used to make the top finial). Mark each end with a center finder, and then mark the center with an awl. I use a Stebcenter drive to turn the icicle, but any type of spur drive will work. Place the wood between centers and turn it until it is just round.





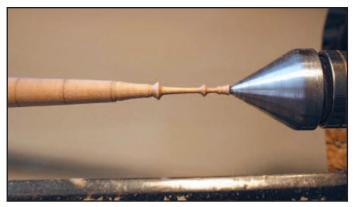
**Step 2.** Because I'm right-handed, I prefer to start from the headstock end, and I marked the wood about 3/4" to 1" from the headstock or Stebcenter. Here I will form a tenon about 3/4" in diameter, so the blank can be held in my *Oneway* Talon chuck using the No. 1 jaws. To save time, I normally will make several of the icicles from different woods, then stop the lathe, remove the Stebcenter drive, and install the *Oneway* Talon chuck with the No. 1 jaws.



**Step 3.** Mount one of the icicle blanks in the jaws, and bring up the tailstock so that the live center point is in what will be the pointed end of the icicle. Completely tighten down the chuck jaws and tighten the tailstock for support. Start at the tailstock end and taper the wood so it is just proud of the live center point.



**Step 4.** I've made "story sticks" for my various icicle designs, and I use them to lay out each part of the icicle. Once you have decided on a design, make a story stick and mark the wood accordingly for any elements you wish to make. (Note: I will be calling each part an element.)



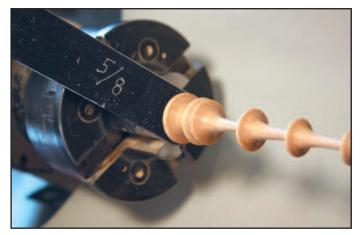
**Step 5.** Start at the tip of the icicle and proceed to turn the first element. Once done, turn the next element. After I have the second element started, I sand the first element through all sanding grits. I prefer a small droplet at the very bottom of my icicle (but you could leave a point at the bottom, if you wish), so I do not turn away wood around the tailstock point until the last thing. No matter what, I like the tailstock in place to support the wood as I turn the icicle.



**Step 6.** Continue this procedure, turning and sanding each element as you work toward the top of the icicle. When sanding, move the tool rest out about 2" from the icicle. It is a good idea to use one hand under the tool rest to hold onto the abrasive paper while the other hand actually does the sanding. This will help prevent the paper from jumping over the top of the icicle—should this happen (and it will), the icicle can break at the small, pointed end.



**Step 7.** Once all the elements have been completed and sanded, turn the bottom of the droplet off using a very small skew (1/4"). To do this, the bottom of the icicle should be supported with your fingers. Remember, very light cuts and steady hands are needed here. When completed, back the tailstock away from the icicle.



**Step 8.** I use a 5/8" hole to attach the icicle, and I form that last using my shopmade 5/8" gauge. Calipers could be used to measure the short (1/8") tenon, or you could even use a 5/8" open-end wrench as a gauge, but that requires much more wood.

Always undercut the top of the icicle area so it will sit flat on the body of the ornament. Part-off the icicle at the headstock end with a small parting tool, while using the other hand to catch the icicle as it falls away.



**Step 9.** This is a better photo of the 1/8" thick, 5/8" gauge as it sits on the 1/8" long tenon.



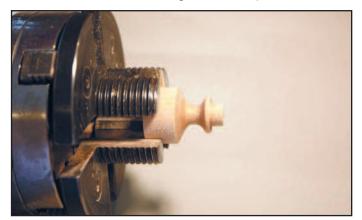
**Step 10.** I use a pin vise and small drill to form a hole for the eye screw. This is on the top of the icicle near the center and is only used for hanging the icicle to spray on the finish. It will be removed before final assembly.



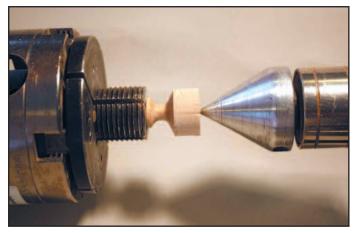
**Step 11.** The remaining wood is used to form the top button finial. Loosen the chuck and move the wood out so it is still securely held by about 1/4" or less. Bring up the tailstock for added support.



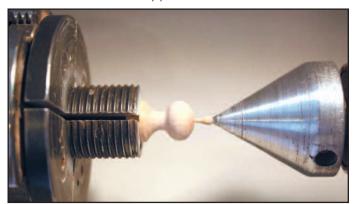
**Step 12.** Form the 3/8" diameter by 1/4" long tenon so that it fits into the 3/8" hole drilled previously. I used my 3/8" shopmade gauge to size the tenon, but again, calipers or an open-end wrench could be used. Stop the lathe and use a 3/8" hole drilled into a piece of scrap to ensure a good fit. Undercut it slightly so it will fit on the body nicely during final assembly. Sand this area now, as it will sit next to the chuck during the next step.



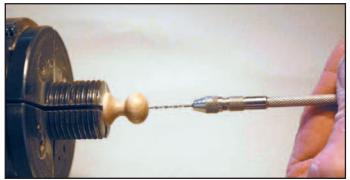
**Step 13.** The completed 3/8" diameter by 1/4" long tenon is shown.



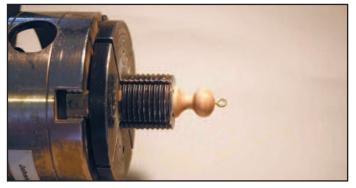
**Step 14.** After sanding, loosen the chuck, turn the finial around, and grip the tenon in the chuck jaws. Bring up the tailstock for additional support.



**Step 15.** Carefully form the finial to a pleasing shape. You can be creative here, because you can make any kind of finial you wish—it does not have to look like mine.



**Step 16.** With the lathe running, cut away the small nub, then use the point of a small skew to dimple the wood in the center. I find that using a pin vise and small drill bit allows me to drill the hole deeply enough for the eye screw. This drilling is done by hand while the lathe is running.



**Step 17.** Use the end of a fishing hook or anything else that will hold the completed ornament; however, I like the eye screw method. Sand the finial through all the grits. Stop the lathe, and while the finial is still in the chuck, screw in the small eye screw. Hang the finial on a small wire and apply your finish. I use "rattle can" lacquer to finish my finials, but use whatever finish you wish.



Following are some examples of ornament parts I have made. This might spark your creative juices and get you started on the globes for your finials.



This photo shows the cutting sled that I made, and it is used with the miter gauge for my bandsaw. I use it to cut one or two sides off a body, giving a completely different look to an ornament.



In this photo, the squaring block is used with a miter gauge to cut the second side off a body. Any square piece of wood would work. This really gives a different look, since you can see completely through the Christmas ornament.



A body is shown with both sides cut away. The opening was sanded to smooth or blend in the edges. Black paint was applied, which really accentuates the positive and negative space. This is a maple body and mesquite finial and icicle. You may wish to make a small tag (as shown) to identify the woods used, and maybe add your name so people will know who made the ornament.



This ornament is made from a man-made decking material called *Trex*. I used *Gorilla* glue to glue two pieces together. It was then cut to round on the bandsaw and hollowed the same as any of the other ornaments. However, care needs to be taken so that the friction drive doesn't melt the plastic, because it will if you get too aggressive. I have been thinking about making a 3/4" diameter by 1/4" plug to be glued in the *Trex* material, and when cured, drill out the 5/8" hole and complete the body. This would provide a solid wood surface for the friction drive.

In closing, I hope you enjoy this article and that you will give these Christmas ornaments a try. In the next issue, I will show you how to make the globe portion of the ornament. In the meantime, stock up on the top and bottom finials so you will have plenty to complete the ornaments. Please experiment and drop me an e-mail at johntolly@austin.rr.com, and send pictures of some completed Christmas ornaments you create.



## **Johnny Tolly**

Johnny and Marcia Tolly live near Austin, Texas, and are both active in the local woodturner's club. Johnny is the past president and Marcia is the club's past librarian. Johnny welcomes your questions, comments, and suggestions, and can be reached by sending a SASE to him at 16212 Crystal Hills Drive, Austin, TX 78737-9009 or by e-mail at johntolly@austin.rr.com.