

Elegant Lidded Box with Finial

Janice Levi



This little box is an excellent turning project because it combines numerous woodturning techniques while paying close attention to form and proportion. Because of its small size, the finial box can be completed in a single afternoon of turning, yet the “oohs” and “aahs” will continue for some time.

The box

The box and lid are turned from one block of wood measuring 5" (13cm) long and 2½" (6cm) square. The blank is first turned between centers, then mounted in a chuck for endgrain hollowing.

Mount the blank between centers and turn it round. Form a chucking tenon at both ends, and part off a length of the blank for the lid section, keeping in mind that the total thickness of the lid will ultimately be less than ½", or 13mm (Photo 1).

Make the box body

Remount the base section in a four-jaw chuck, true the top surface, and begin shaping the top two-thirds of the box's exterior. Many woodturners are familiar with applying the Golden Mean to their turnings, and using that ratio on this box provides good practice for larger pieces. The Golden Mean is employed to create visually pleasing compositions. Artists and designers use it as a guide to arrange elements in a way that feels harmonious and balanced. Woodturners use the ratio of 1:1.618 for the same reasons—to create a finished product whose proportions are visually pleasing. Although applying the Golden Mean is not always necessary, when it is used, the finished product is usually aesthetically “right.” The body of the box, the finial, and the combination of box and finial will all look balanced by applying the Golden Mean, or “Rule of Thirds,” as it is often called.

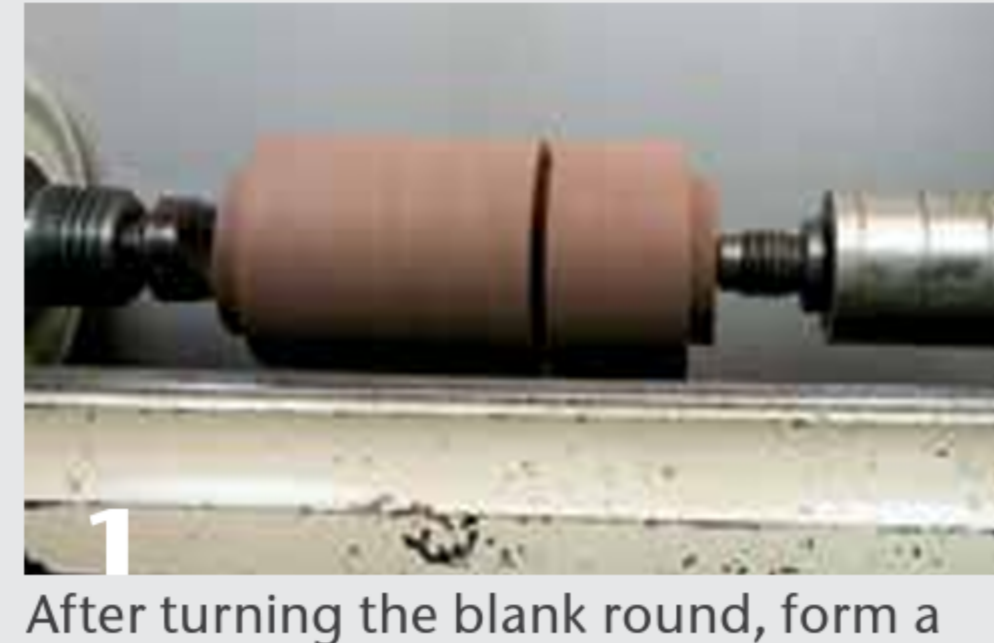
The completed box will measure approximately 2" (5cm) in height and 2" in diameter. If you are applying the Golden Mean, the widest part of the

SYMPOSIUM DEMONSTRATOR IN PORTLAND!

American Woodturner contributor and proofreader Janice Levi will be a demonstrator at AAW's International Woodturning Symposium in Portland, Oregon, May 23-26, 2024, where her rotations will include the lidded box with finial described in this article, as well as surface enhancement techniques. Don't miss this chance to learn from Janice, live and in person! For the latest details, visit aawsymposium.org.



Turn and part box/lid



After turning the blank round, form a tenon at each end and part off the lid section.

Rough-shape box body



Mount the base, or box, section into a scroll chuck, turn it to a 2" diameter, and begin shaping the top and sides.

Hollow box



Use a drill bit to facilitate endgrain hollowing inside the box.



A parting tool works well to create a 1" opening in the top and a ⅜"-deep shoulder. Small hollowing tools can be used to aid in the hollowing process.



Form a foot



Create a small foot at the bottom of the box—in this case, a simple bead is formed.

Fit lid to box



Remove the box body from the chuck, and mount the lid section. Turn the lid diameter to size with a parting tool.



Keep fitting the box to the lid by hand (with the lathe off) and making adjustments to the lid diameter until you have achieved a snug fit.

box will be about one-third of the way from the top or up from the bottom. In this exercise, the widest part will be about one-third from the top. Begin shaping the top of the box and down the sides about two-thirds of the way with a spindle gouge (Photo 2). Sand this portion of the box.

To make the endgrain hollowing easier, use a Forstner bit or ½" twist bit to drill a hole to the depth of the box interior (Photo 3). Use a parting tool to create an opening about 1" (25mm) in diameter and a small shoulder about ⅜" (5mm) deep (Photo 4).

You could begin the hollowing process using a parting tool and making plunge cuts straight into the area to be hollowed. Small hollowing tools will allow wood to be removed from beneath the shoulder of the box (Photo 5).

After hollowing about two-thirds of the inside of the box, return to shaping the outside with a spindle gouge. At its base, the box will be about ⅝" (16mm) wide. Work incrementally, hollowing some then shaping the outside. Create a small foot at the bottom of the box. This may be a small bead or a slightly angled cut (Photo 6). When you have achieved a pleasing and balanced shape, sand the inside and outside of the box. You may choose to apply a finish at this time, but do not part the box off yet; simply remove it with its chucking tenon intact at this point.

Make the lid

Mount the lid for the lid, which you had parted off earlier, and reduce its diameter with a parting tool (Photo 7). Measure the opening of the box and carefully match the lid diameter

to that dimension. Keep checking for a snug, but not overly tight, fit (Photo 8).

The purpose of this step is to size the lid to the box opening. Remove the box and turn the inside profile of the lid to slightly dome-shaped using a detail gouge. You may wish to adorn the inside of the lid with beads or grooves (Photo 9). Sand the inside and apply a finish if you choose to do so now. Do not part the lid off at this time.

Remove the lid with its chucking tenon still attached and re-mount the box in the chuck. Insert the lid into the box and bring up the tailstock (Photo 10). Remove as much of the tenon and excess wood as possible using a spindle or detail gouge (Photo 11). Let the lid stand a bit proud of the box, and try to turn the top of the lid so it follows the same curve as the top of the box. ▶

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Because the base of the finial will cover ½" to ¾" (13mm to 19mm) of the top of the lid, strive to make clean cuts up to the area that will be covered by the finial. Sand the top of the lid. To remove the rest of the lid, use painter's tape to secure the lid to the box. Make careful cuts with a thin parting tool or a fine-toothed saw to remove the tenon.

Advance the tailstock live center to create a slight indent in the top of the lid to guide the drill bit. Once the tenon is gone, mount a drill chuck with a ¼" (6mm) drill bit into the tailstock. Drill a hole into the lid to accommodate the finial's tenon (Photo 12). Be careful not to drill through the lid. But if you do, little jewels can cover the mistake inside the lid. Remove the lid from the box. You may choose to apply a finish to the lid at this time.

Use a thin parting tool angled with a slight undercut to part off the box from its chucking tenon (Photo 13). Optionally, you could expand small chuck jaws into the box opening so that decorative cuts can be made to the bottom of the box (Photo 14).

The finial

For the finial, start with a blank 6" (15cm) long and 1" square. It is best to use a closed-grain wood such as maple or cherry (but not oak or ash).

Turning the finial will require small chuck jaws. After mounting the blank, use a pencil to mark the length of what will be the finished finial. Applying the Golden Mean, or Rule of Thirds, if the box is 2" tall, the finial should be almost 4" in length (using the 1:1.618 ratio). So

often a beautifully turned box featuring exotic or spalted wood can be diminished in appearance by adding an overly tall, clunky finial that is not well proportioned. The finial itself also should follow the Rule of Thirds, with the top two-thirds generally free of oversized elements (Photo 15). The job of the finial is to gracefully guide the viewer's eye down to the box without competing for attention.

Do not turn the entire finial blank round. Rather, work in small increments so the remaining bulk of the wood provides some stability (Photo 16). Although a ½" spindle gouge can be used to rough turn the blank, a ⅜" (9.5mm) detail gouge is an excellent tool for this fine work.

Avoid straight lines within the finial, but opt for graceful curves (Photo 17). Sand as you go. Use a caliper to measure the base

Adorn inside of lid



Turn the lid's inside profile to a slightly domed shape. Adorn the inside with beads or V-grooves.

Remount box with lid



Remount the box blank in the chuck, insert the lid with the tenon still attached into the box, then bring up the tailstock for support.



Turn as much of the top of the lid as possible in this configuration, reducing the waste wood above the lid. Sand the lid and box.

Turn away waste, drill lid



With the tape secured to the box with painter's tape, part off the waste material above the lid (not shown), and drill a ¼"-diameter hole to receive the finial tenon.

Part box from waste, complete foot



Remove the lid from the box, and part off the box.



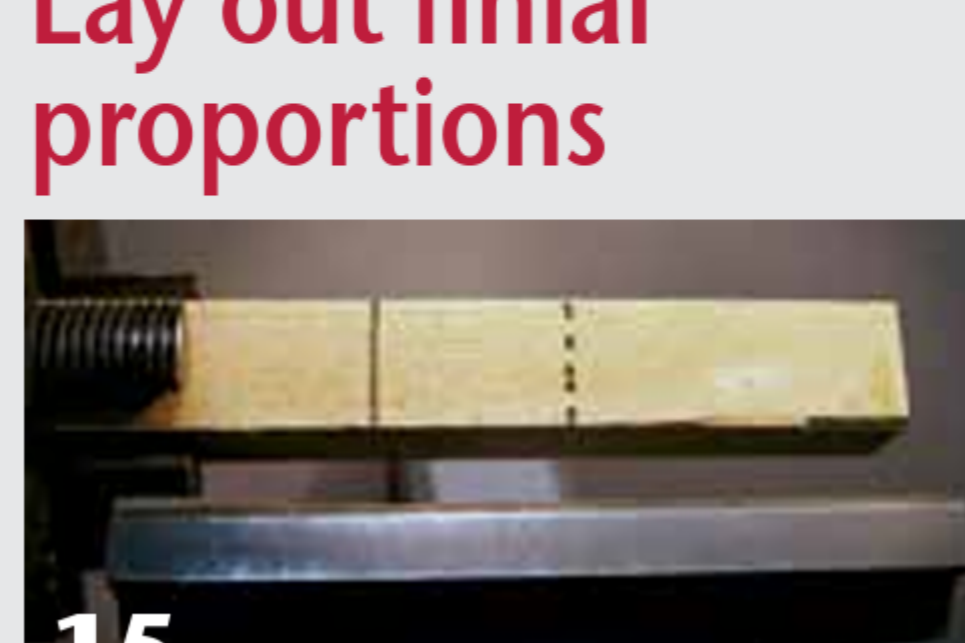
An option is to reverse-mount the box using small jaws in reverse-mount the box to adorn the bottom of the foot.

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FEATURE

Lay out finial proportions



With the finial blank mounted in small jaws, mark the overall length (the solid pencil line) and one-third of the way up from the bottom (the dotted pencil line). This will serve as a guide for where to aesthetically position the finial's features.

Turn and sand finial



Don't turn the entire finial at once, but work incrementally from the tip, using a detail gouge for the finer details. Avoid creating sharp lines on the finial, opting for a graceful curve.



An option is to reverse-mount the box using small jaws in reverse-mount the box to adorn the bottom of the foot.

of the finial to make sure it will fit onto the box lid (Photo 18).

To make certain that the finial will fit over the curved lid, use a thin parting tool to slightly undercut the finial, leaving a tenon of ¼" in diameter (Photo 19). Apply the finish of your choice. Part off or use a fine-toothed saw to remove the finial and fit it to the lid. Occasionally, the tenon may be too small and the fit, sloppy. If this is the case, use a toothpick to apply a thin line of wood glue completely around the tenon and allow to dry. This usually takes care of a loose fit. Use wood glue to attach the finial rather than cyanoacrylate (CA) glue. Wood glue allows for a few minutes to make small adjustments if needed before it sets up.

The lidded box with finial is now completed (Photo 20). Although small, this is an excellent project to introduce the woodturner to using the Golden Mean on other turnings. It also provides good practice for endgrain hollowing and spindle turning. ■

Janice Levi is a member of the AAW, the Brazos Valley Woodturners in Waco, Texas, and the Gulf Coast Woodturners in Houston, Texas. She has been turning wood since 2001 and demonstrates and teaches at woodturning clubs across the country. She also demonstrates at symposia, including the AAW conference. Janice contributes articles to various woodturning magazines. Contact her on her website, janicelevi.com or via email, jlevi@rightturnonly.net.

Part off finial

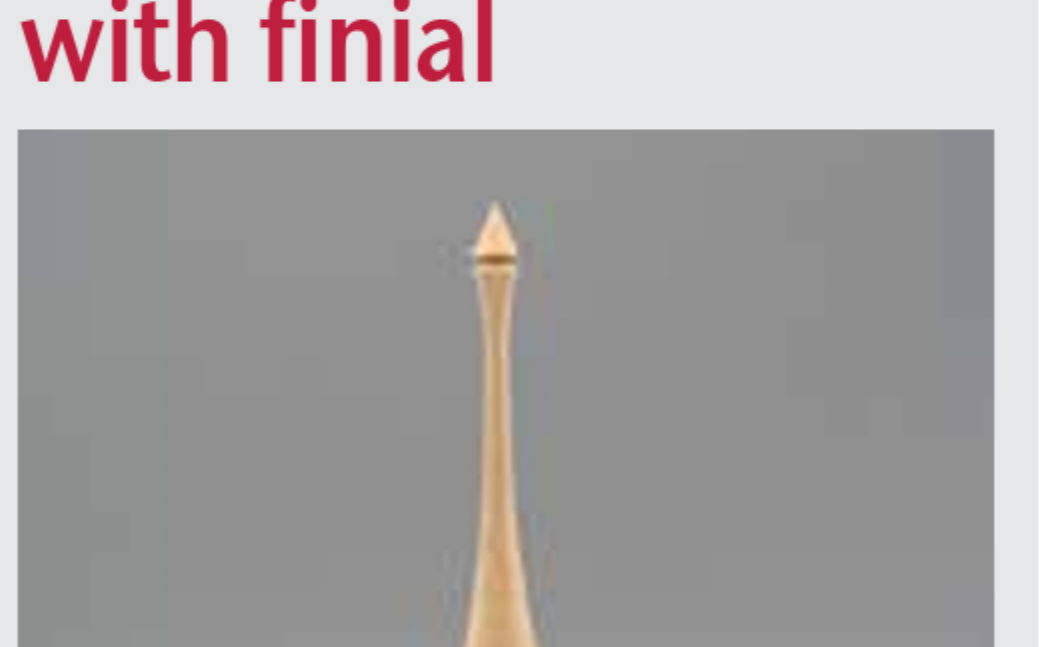


Use a caliper to measure the base of the finial to ensure a good fit to the top of the lid. Slightly undercut the base of the finial, leaving a ¼"-diameter tenon. Apply a finish.



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Completed box with finial



The completed lidded box with contrasting finial.

MORE ON FINIAL DESIGN

EXPLORE!

To learn more about finial design, log on at woodturner.org and use the Explorer search tool to find these and other articles.

• “A Closer Look at Ornamentation,” by Janice Levi, *AW* October 2019 (vol 34, no 5, page 31)

• “An Analytical Approach to Finial Design,” by Cindy Drozda, *AW* Spring 2006 (vol 21, no 1, page 53)

• “Finial Fundamentals,” by Joe Larase, *AW* February 2014 (vol 29, no 1, page 36)

• “Nontraditional Finial Box,” by Fred Klap, *AW* Fall 2007 (vol 22, no 3, page 46)



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651-484-9094 direct or 877-595-9094 toll free U.S.

memberservices@woodturner.org

75 W 5th St, 222 Landmark Center, St. Paul, MN 55102

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