

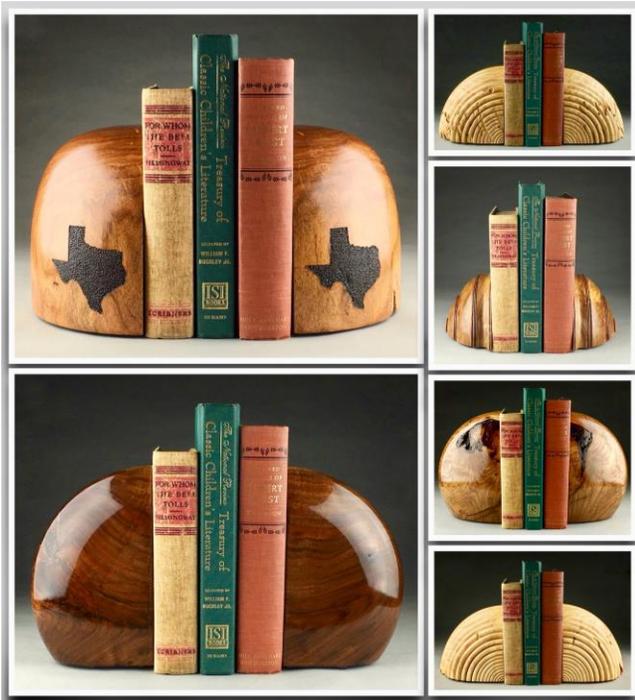
# TURNING BOOKENDS

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Golden Triangle Woodturners

Denton, Texas

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## **INTRODUCTION:**

It is often a bonus when something we turn is not only beautiful, but highly functional as well. Woodturned bookends can be just that. This ninety-minute presentation teaches woodturners how to successfully turn a pair of bookends by discussing, and/or demonstrating:

- **Wood Selection Specifications**
- **Production Steps**
- **Shape and Design Options**
- **Finishing Considerations**
- **Suggested Resources**

## **Wood Selection Recommendations:**

- **Wood Species:** To ensure the bookends are durable and sturdy, use wood species that are hard, dense and heavy. The online resource, The Wood Database, identifies 66 out of 104 North American Hardwoods that have a Janka Hardness Rating of at least 1000 lbf and an Average Dried Weight of 38 lbs./ft<sup>3</sup>. Of the 66 North American Hardwoods meeting these recommended criteria, my favorites include Black Walnut, Cedar Elm, Green Ash, Honey Locust, Honey Mesquite, Osage Orange (Bois d'Arc), Live Oak, and Pecan.

Species	Janka Hardness lbf	Average Dried Weight lbs/f3
Black Walnut	1010	38
Cedar Elem	1320	41
Green Ash	1200	40
Honey Locust	1580	47
Honey Mesquite	2340	51
Live Oak	2680	63
Osage Orange	2620	54
Pecan	1820	46

- Dimensions: Using wood blanks that are a minimum diameter of 10” and 4” thick provides ample wood material.
- Other Desirable Qualities: Other wood characteristics that can enhance the artistic appeal of the bookends include unusual grain patterns, figure, unique inclusions, voids made by mother nature, spalting, and/or interesting bark (if natural bark edge is incorporated into the design).

### **Equipment, Tools and Materials:**

- Lathe capable of turning at least 10” diameter wood equipped with normal accessories
- Lathe chuck, faceplate, headstock drive center, live tailstock center
- Basic turning tools: bowl gouge, detail gouge, scrapers, parting tool
- Sandpaper assortment
- Natural clear wood stain
- Polyurethane finish
- Foam and bristle brushes
- Painter’s tape
- Carpenters square
- Clear 1/2” stick-on bumpers for bottoms of bookends, four per piece (I found these available in a package of 16 at Hobby Lobby and have listed the link in **Suggested Resources** below)

## **PRODUCTION STEPS:**

1. Select wood species that meet recommended specifications for durability and sturdiness, as well as its esthetic qualities such as color, grain, and unique features.



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2. Mount blank onto lathe with face plate or other desired method.



3. True up piece into a traditional wood bowl blank shape.



4. Turn a tenon on exposed side.



5. Remove from lathe, remove face plate, reverse piece and mount it back onto lathe with tenon in chuck.



6. Once finished turning and while still on the lathe, sand as needed and desired.



7. While still on the lathe, apply natural clear wood stain, followed by at least three coats of polyurethane.



8. While waiting for polyurethane finish to cure, decide if outcome is to be one larger set of bookends or two smaller sets of bookends (see Shape and Design Options below).



9. Once finish has cured, remove piece out of chuck and then remove tenon. I chose to remove the tenon with a sharp chisel. After tenon is removed, sand and then finish center section with clear natural stain and several coats of polyurethane.



**10.** After polyurethane finish has completely cured, apply wide painter's tape on the surface side along what will be the cutting lines. Draw the cutting lines on the painter's tape. Use a carpenter's square to ensure lines are perpendicular.



**11.** Put painter's tape on all of the underside surface and perimeter edges to protect the finish during the cutting process.



**12.** Cut piece by preferred method. I used my miter cut saw.



13. Remove painter's tape and finish the new unfinished wood surfaces by sanding, clear stain and then several coats of polyurethane. I found the use of painter's triangles extremely helpful when finishing with the polyurethane coats.

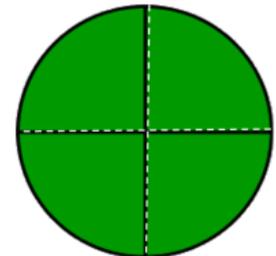
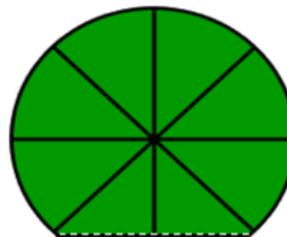


14. After polyurethane finish on the base surfaces has completely cured, apply four clear 1/2" stick on bumpers to aide in the bookends sturdiness and purpose on the shelf.



### Shape and Design Options:

- There are at least two shape options:
  - One larger bookends set of about 9/10 of the production circle where each bookend would be about 8" tall, 5" wide, and a base of about 3".
  - Two sets of smaller bookends that are 1/4 of the production circle where each bookend would be about 5" tall and 5" wide at the base.
  
- Design options are endless. From simple to complex, smooth to highly tactile, the design for the bookends can be almost anything you want them to be. Sources for design inspiration are listed in suggested resources below.





**Finishing Considerations:**

- Apply at least three coats of Polyurethane to form a hard, long-lasting durable finish.
- Apply clear 1/2" stick on bumpers for bottoms of bookends, four per piece

### **Suggested Resources:**

- The Wood Database <http://www.wood-database.com/wood-finder/>
- Hobby Lobby clear stick-on bumpers <https://www.hobbylobby.com/Home-Decor-Frames/Frames-Photo-Albums/Hardware-Accessories/Self-Adhesive-Bumpers---1-2/p/38613>
- Painter's Triangles at Home Depot <https://www.homedepot.com/p/HDX-Painter-s-Tripods-10-Pack-PT10-HDX/206509477>
- American Association of Woodturners, The Sphere <http://www.galleryofwoodart.org/The%20Sphere.pdf>
- Turning Gallery <https://www.turninggallery.org/>
- *Conversations with Wood, The Collection of Ruth and David Waterbury*, by Ruth and David Waterbury