Women in Turning

WIG STAND INITIATIVE for WOMEN IN TURNING

In follow-up to a member's suggestion, AAW WIT is encouraging WIT groups to join in a national project to turn wig stands, at no expense for the recipients. Our goal is to give back to our communities in this worthwhile effort, especially since cancer has likely impacted each of us, our family, and/or our friends. We are partnering with local/regional groups who provide free wigs for distribution of the wig stands to get them to recipients in need while minimizing the expense to WIT members. Some entire AAW clubs have already been doing this project for some time and we are following in their knowledgeable footsteps.

Several resources on turning the wig stands are available and are attached to this document. Glean helpful information from each of them and use your creativity and resources within your WIT group to customize the stand production to meet your needs. For example, there are multiple ways to chuck the top and base. You may want to embellish the wig stand with turning detail, woodburning, or painting—let you imagination soar to meet the needs of the recipients that your club will be helping. Some clubs may have needs for adult women, adult men, and/or children of various ages.

Check out the attached Excel sheet of organizations who have already been contacted for distribution of the wig stands. Most organizations are giving out wigs in person and would be giving out the wig stands at the same time. See what organization is near your club—you can deliver the wig stands either as an individual club or gather regionally. If nothing appears to be near your location, Google "free wig in *your state"* to find a local resource.

These wig stands were made by the Central Illinois Woodturners

This personal gift to someone who likely needs a lift during a life crisis is a gift of caring that will truly be appreciated. Please join us in this important project. Contact Robin McIntyre, AAW WIT Liaison Coordinator, with any questions or with new resources—robinmcintyre@comcast.net.

Who is looking for wig stands? Click here for distribution information.

WIG STANDS

Material needed

Top: 1 1/2”–2” thick x 5” diameter disk
Base: 1 1/2”–2” thick x 6” diameter disk
Stem: 10”–13” x 1.5 x 1.5 block

Any species of dry wood will work for this project. It can be solid or glued up.

Process

Turning the stem allows for plenty of options and it can be the piece on which to show some design creativity. Mount the wood between centers and true up using a spindle roughing gouge. Turn tenons on both ends to match the holes you drill in the top and bottom. Slightly undercut the shoulders next to the tenons so it will fit cleanly onto the top and base. The rest of the stem can be turned to any shape you wish. This is an excellent opportunity to practice spindle work. Turning the stem first allows you to dry fit it to the top and base later—just in case your holes in the top and base need any adjustment in diameter or depth. You can also mark the width of the stem shoulder onto the top and base.

Drill a ¾” to 1” hole in the center of the bottom of the top piece and the top of the bottom piece. The depth will depend on the thickness of your material. Plan on drilling ½ to ¾ of the depth of the wood. This should provide sufficient strength to hold the stem in position.

The top and bottom can be held on the lathe for turning in any number of ways (collet chuck, jam chuck, pin jaws on expansion chuck, vacuum chuck, or any other method that works for you). Use tailstock support for as long as you can for safety. On the shoulder adjacent to the holes, make sure that the width of the shoulder matches the width of the shoulders on the stem so it fits cleanly. Turn the top to a curved mushroom shape. The bottom can also be a curved mushroom shape or any other shape that you like. If you are using thicker wood, you may be able to dish the base so that it can hold rings, earrings, or other jewelry in addition to the wig itself.

Sand all parts as you turn them. If you wish to add embellishment, each of the parts can be embellished separately or all at once after assembly. You can use pyrography, carving, painting, collage, or any other type of embellishment that you wish to enhance the look. Or you can do nothing at all! Have fun with whatever you choose!

Assemble parts using wood glue, epoxy, or any other strong adhesive. Finish with a couple of coats of polyurethane to protect from moisture—<u>this is a must</u>. You may sign and date your work if you wish.

Central Illinois Woodturners

present

Making a Wig Stand

This presentation will detail the process of making wig stand kits and turning the finished product.

All wig stands are donated to the Susan G. Komen Foundation.

These stands were decorated by a local high school senior art class.

Author: Terry Quiram, walnut1950@yahoo.com

- 3 items of importance allow our program to be successful.

- 1) Our club is very fortunate to have access to a company that supports our program by donating large amounts of their “scrap” hardwood.

- 2) Our membership is quite enthusiastic about participating.

- 3) We have been fortunate to identify non club members that are willing to help in the form of decorating the stands.

A wig stand kit consists of 3 components. A top (mushroom), stem, and base.

Top (mushroom)
5” diameter
2” thick

Stem
1.5” sq
12” long

Base
6” diameter
1.5” thick

Please note this is not the only way to prepare the material.

If you think I am over explaining feel free to skip content, it's just my anal engineer side showing.

All stock is run through the thickness planner to remove any imperfections (this makes glue ups a whole lot friendlier). Remove as little material as possible.

Begin by cutting the stock into 2 different lengths and widths.

The first is for the top (mushroom). This is a glue up of boards sized 2" wide x 11" long. Depending on the thickness of your stock it should take 8 to 10 boards to make a glue up. The finished glue up for the tops (mushroom) should be 2" thick x 5.5" wide x 11" long.
2 top pieces will be cut from this block.

The second is for the base. This is a glue up of boards sized 1.5" wide x 13" long. Depending on the thickness of your stock it should take 9 to 11 boards to make a glue up. The finished glue up for the base should be 1.5" thick x 6.5" wide x 13" long.
2 base pieces will be cut from this block.

Stem pieces should be 1 ½" (min) square x 12" long

You can use 6/4 and 8/4 stock if available thus eliminating any glue ups.

I use Elmers White Glue-All, interior. The boards are sitting on aluminum angle to elevate during glue application and clamping. The foam applicator can be placed in a zip lock bag and kept moist indefinitely.

After removing from the clamps run the blocks through the thickness planner to make both sides smooth and parallel.
The circular templates are 1/8” hardboard with the center located.
The base templet is 6” diameter.
The top (mushroom) templet is 5” diameter.
Pieces are cut round on the band saw.





A more complete showing can be seen at CentralIllinoisWoodturners.com



Turning a wig stand

- The procedure I am going to cover is how I turn a wig stand. Its not the only way, it’s the way that works best for me.

Drill a ¾” hole approximately 1” deep.

Home made vacuum chuck with self sticking “Fun Foam” attached. Fun foam can be purchased at a store that carries hobby material.

With the top (mushroom) mounted, turn and sand the underside. I like to slightly dish out as this gives a nice feel when you pick up the completed stand. This feature isn’t necessary. The bottom can be left flat with a rounded corner.

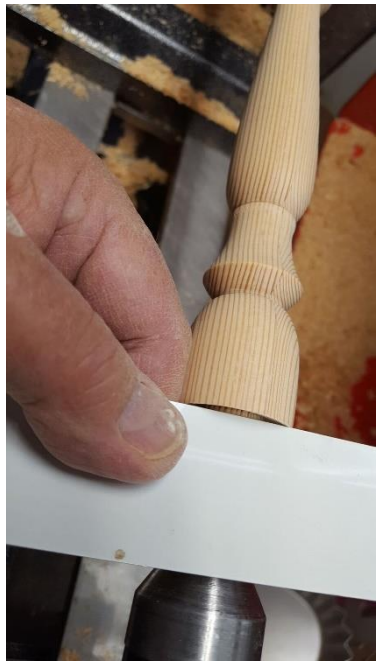
Because the tail stock is holding the mushroom I do not use vacuum.

To hold the top while finishing the dome I use a Beall expanding collet. Other holding methods could be a jam chuck or vacuum.

Turn and sand the base. The purpose of the concave feature would be to hold rings or a watch. I turn a slight concave on the base as well to insure the stand will sit flat. A few lines to decorate the base.

Turning the bottom concave and line decorations is the only time I use vacuum.

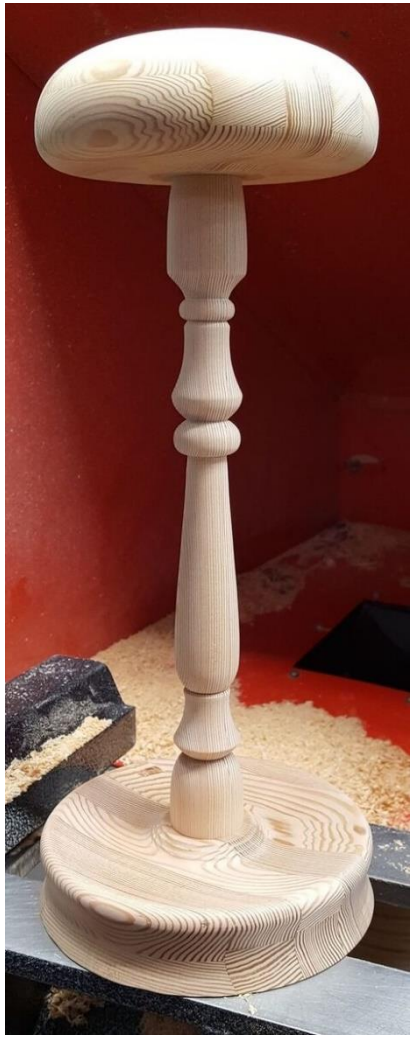
Start turning the stem by forming tenons on both ends. I use a ¾” wrench with rounded corners as a sizing tool. I hold the tool to the wood as I am turning until the tool drops onto the tenon. Tenon length is approx. ¾”.



Undercut both ends so the stem sits squarely onto the top and base.

Fix a loose fitting tenon by making a shaving with a hand plane. Wrap and glue the shaving around the tenon. Let dry before assembling the stand.

Stem examples.



The finished product ready to be stained and finished or decorated.

Mushroom can be between 3” and 5” diameter.

Base can be between 5” and 6” diameter.

Assembled height should be between 13” and 15”.

The stand must be finished with Polyurethane to protect against moisture.

HAT AND WIG STANDS

John Kelsey

Hat and wig stands ranging from 7" to 14" tall, with 6" bases and 5" tops.

Rummaging through the library at the Center for Art in Wood in Philadelphia, I stumbled across several 100-year-old woodturning textbooks. They were filled with turning exercises and projects. Wanting to improve my skills with a gouge and skew chisel, I tried some of the traditional spindle exercises *(Photo 1)*.

Not wanting to blow through expensive hardwood, and to follow the advice of those old shop teachers, I worked in softwood *(Photo 2)*. After a few evenings wrestling the low-density stuff, I wondered what to do with all the practice pieces I had generated. I had no need for more candle stands, but what about stands for hats? I turned a pair of discs to assemble a test piece and my wife pointed out the stands would also work for wigs. Additionally, making the smoothly curved discs for the stand, base, and top would add faceplate-turning skills to the exercises *(Photo 2)*.

Hat stand design

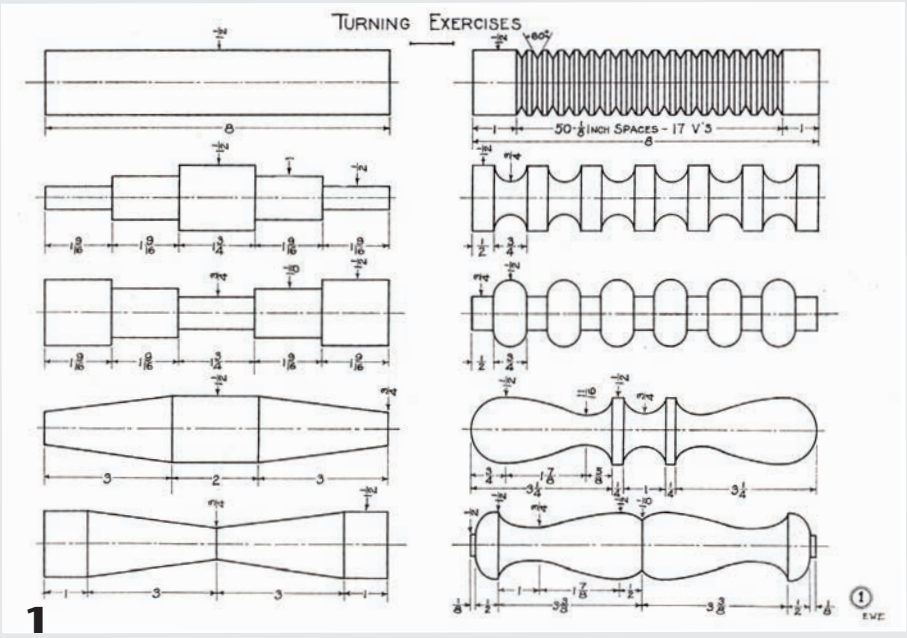
I made test pieces to refine the design. It turns out stability doesn't require thick wood or a large base—a full inch × 6" (25mm × 152mm) base with a full inch × 5" (25mm × 127mm) top is fine, even under a cowboy hat. A thicket of hats can overlap at different heights to use less space. Floppy hat brims on stands shorter than about 7" (18cm) will drag, and stands taller than about 14" (36cm) need a larger base.

I turned the discs smooth and free of ornamentation to avoid creating dust crevices. Tops with the underside left rough will catch wig hairs, although a rough underside poses no problems for hats.

Turning lessons

The old spindle-turning exercises were challenging and they highlighted a number of skills:

- *Turning to dimension and turning tenons to fit a drilled hole.* I found ▸



1

2

Pine is inexpensive softwood well suited for turning practice and design experiments.

Traditional introductory exercises from Earl Ensinger's 1926 book *Problems in Artistic Woodturning*. Ensinger writes, "No sanding should ever be done on any exercise. The student has not properly learned the process, who cannot turn soft wood smooth with the tools alone."

it best to establish a slightly oversized tenon using a vernier caliper *(Photo 3)*, define the tenon length by reducing the surrounding wood to match the established diameter, and use light shearing cuts with a skew chisel to establish the final tenon diameter *(Photo 4)*.

- *Sanding tenons to fit usually removes too much wood and knocks the tenon out-of-round.* However, loose tenons can be wedged. Saw a kerf into the bottom of the tenon and tap in a wooden wedge *(Photo 5)*.
- *Turning clean beads and coves that match.* I found it best to first establish the transitions and fillet diameters using a skew chisel, parting tool, and vernier caliper, and then turn the features between these points. While I could form all of the shapes with a spindle gouge, the ½" (13mm) skew chisel produced the cleanest finish.
- *Building skill with turning tools.* In softwood, it is possible to sand any surface into a flowing shape, but with sharp tools it is also possible to cut a smooth, crisp surface. Scraping tools used on the face-turned discs can produce a surface that needs minimal sanding *(Photo 6)*.
- *Turning harmonious shapes and proportions.* How large is the bead compared to the adjacent cove? The old books suggested small, whole-number relationships (for example 2:1) to create successful designs. Thus, a bead would be twice the width of the cove. How do the beads, coves

3

Part the tenon shoulders down to a slightly oversized diameter.

4

Trim the tenon with a skew chisel. Practice and patience combine for a perfect fit.

5

If the tenon is loose, add a narrow saw kerf and tap in a slender wooden wedge.

6

A freshly sharpened scraper produces paper-thin shavings and a smooth surface on the face-turned discs.

and fillets connect? They suggested the spindle would look best if each transition formed a 90-degree angle, which I found to be a useful guideline but not an unwavering truth *(Photo 7)*.

Mounting the work

Mount the blank between centers and true the blank using a spindle-roughing gouge. Establish the tenon *(Photos 3, 4)* and work from the tailstock toward the headstock to minimize vibration *(Photo 8)*. Adding ¼" (6mm) to the tenon's length permits parting off the piece and paring the end grain to remove the center marks.

For the discs, the old books recommend gluing the blank onto a waste block with a layer of paper in the joint, and screwing the block to a faceplate. A lot of bother, but they didn't have four-jaw scroll chucks. I turned a jam chuck, using the drilled mortise in the blank as the attachment point. I aimed for a tight friction fit with the disc seated against the shoulder of the jam chuck, and learned a slightly undersized tenon could be salvaged with a wedge tapped into a kerf cut in the tenon *(Photo 9)*.

Joints

The joint that holds the pieces together is a 1"- (25mm-) diameter tenon inserted into a 1" drilled mortise. It helps to have a tight fit, but an undersized tenon can be salvaged with a kerf and thin wedge if the mortise extends through the disc to allow access to the tenon. If you don't want to see the tenon on the top of the stand, drill only part way into the disc and size your tenon accordingly. Snug-fitting components seem like they should hold together without glue. We'll see about that after a few turns of season. ■

John Kelsey is a retired journalist living in Lancaster, Pennsylvania. In summer 2013, he was a resident fellow with the International Turning Exchange, sponsored by The Center for Art in Wood.

Shaker pegs

Make the mounting board from ⅝ × 4" (3cm × 10cm) stock. Use your available space and the number of hats you would like to hang to determine the rack's length. The pegs, also made from ⅝ pine, protrude 3½" (9cm), are spaced 6" (15cm) apart, and have ¾"- (19mm-) diameter tenons.

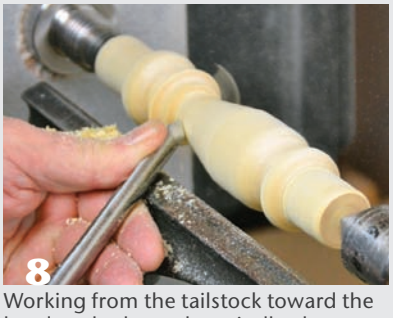
For turning practice:

- Mount a peg blank between centers and round it with a roughing gouge. Establish the tenon and shape the peg details with a gouge and skew chisel. Each peg is an opportunity to practice parting off cleanly. If you use a scroll chuck, add about 2" (5cm) to the blank length to provide material for the jaws to grip, and clearance to avoid those spinning jaws. Use the tailstock for support.

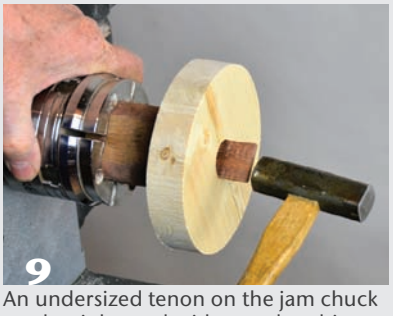
A hat rack featuring Shaker-style pegs is a practical turning exercise and another good place to park hats.

- Try to turn identical pegs. Which is more important, matching diameters or matching lengths? You might also make each peg different. Give them all a shoulder where the peg meets the tenon for a positive fit and to conceal any tearout from drilling the mortises.
- Challenge yourself to make the tenons a perfect fit using a vernier caliper and a parting tool.

7 The vase shape at the top has a nice tension and turns its lip at 90 degrees, but the V transition to the ball is too sharp. The top half of the ball is rounder than the bottom half; it would look more spherical if the height matched its diameter. Okay, turn another spindle and keep practicing.



8 Working from the tailstock toward the headstock, shape the spindle elements with a gouge and skew chisel.



9 An undersized tenon on the jam chuck can be tightened with a wedge driven into a saw kerf.