

## GHWG Wig Stand Instructions (updated Jan 2019)

This is a club project started in the Spring of 2010 to build wig stands for the Canadian Cancer Society. We are working to produce a stand for each member of the Guild, so roughly 160 stands. We are steadily getting more turned in and we are handing them off to the local Hospital for the Cancer patients as they come in. The idea is that the stands would be returned to the hospital when the patient is finished with them, but we can not expect them all to be returned.

To try and make the project a bit easier for patients to carry to and from the hospital and for the hospital to store the stands while awaiting a caring home, the club purchased threaded inserts as well as some card board storage boxes. These were made available to the membership at a cost of a dollar for the 2 inserts and a box to store the finished stand.

The original plans were from the South Auckland Woodturners Guild (<http://www.sawg.org.nz/>).

### Material Required

**Wood:** Wood should be free of open knots and splinter-free when finished. Segmented pieces may be glued up to achieve the overall dimensions indicated below. Cut the top and bottom into circles on the band saw, if available.

**Top:** 4.5" to 5" square/diameter by 2" to 2.5" thick

**Bottom:** 6.5" to 7" square/diameter by 2" to 2.5" thick (Needs to be heavier than the top when finished)

**Post:** 9" to 10" long by 1.5" to 1.75" square

**Hardware:** (can be purchased from the club)



- Threaded insert nut (requires 11/32" dia. by 3/4" deep hole) - 2 required



- Coarse screw/fine thread bolt (requires 3/16" dia. by 1 to 1-1/2" deep hole) - 2 required

2 – Nuts, 1/4", fine thread, to match bolt above. These are used to thread the bolts into the wood.

**Finish:** A variety of hard finishes can be used so long as they do not interact with the wig. Avoid oils, wax and shellac.

### Tools Required:

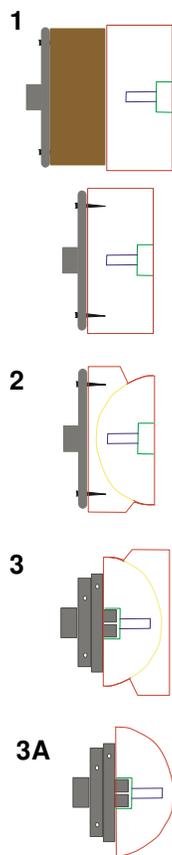
- Turning tools are at the discretion of the user.
- A faceplate, 4 jawed chuck, screw drive, live center, jamb chucks, etc. may be used to secure the workpieces at various stages of construction. The following write-up is designed to work with equipment used at the GHWG.
- 11/32" and 3/16" drill bits. A Jacobs drill chuck on the lathe or a drill press can be used to drill the required holes for the mounting hardware. It is recommended that you test the fit of the hardware using scraps of wood of the same material as the stand. Very dense hardwood may require slightly larger holes to prevent forcing of the hardware and softer woods may require smaller holes to ensure a snug fit.
- Sandpaper, grades up to 240 grit will provide a smooth wood surface that will accept the finishing material.
- Allan key (6 mm) (to fit insert) and 2 Wrenches (for nuts to seat the screw/bolt)

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## Top and Bottom pieces

Start with a lighter blank of wood (see Material list on page 1) for the top of your stand, and a heavier blank of wood for the base. These can be held on a glue block or attached to a face plate with wide-spaced screws. If you are using the boxes supplied by the Guild, then the finished size of the largest piece should be able to fit inside the box, which is 6 inches wide by 4-1/2 inches high.

### Top



1) Working on one piece at a time, you can flatten the face of the block: this will become the bottom surface of either the top or the base. Drill a hole about 1" wide by 1/2" deep (adjust this to accommodate your chuck) for your chuck jaws to expand into or to use on the jam chuck. On the smaller block (the top of the stand), also drill a hole for the threaded insert, about 1 1/32" wide by 3/4" deep. Do not drill a similar hole on the larger block (the base of the stand) yet as the threaded insert goes into the opposite side from the hole for holding the piece.

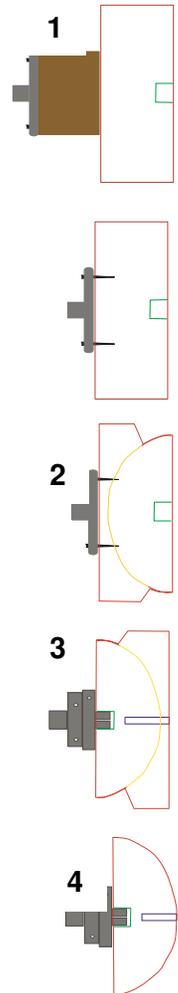
2) While the piece is still mounted in its initial position, start to turn the outer edge of the blank while you can easily get at it.

3) Now turn the block around and hold it in the spigot jaws of the chuck or a jam chuck and finish shaping the piece. For the top of the wig stand (3A), you want to have a nice broad surface shaped more like a cereal bowl, as you want the wig to rest firmly on stand and not have the top of the wig start to stretch out.

4) For the larger block that will be the base, once you turn it around to hold with the chuck or jam chuck, drill the 1 1/32" by 3/4" deep hole after the shaping is finished, this will hold the threaded insert for the base section.

Sand all pieces to 240 grit. The base can be decorated with texturing or coloring to add to the look of the piece. For the top of the wig stand, do not use a plain oil finish or wax as it may bleed into the wig over time.

### Base



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## Body

For the body (post) of the wig stand (see Materials list on Page 1), the finished overall length of the spindle and inserted lag bolts should be 11" or less to fit into the supplied boxes.

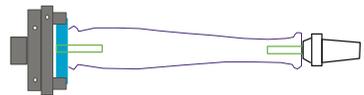


You will need to drill a hole into each end of the spindle so that you can insert the lag bolts that will be used to hold the top and bottom to the spindle.



If your lathe is large enough, you can turn a tenon on each end of the piece so that you can hold it in a chuck to drill it using a Jacobs chuck in your tail stock.

Otherwise you will need to use a hand drill or drill press to drill the hole. Drill the holes about 3/16" diameter by 1 to 1-1/2" deep. You want the hole just large enough so that the coarse threads of the lag screw will be able to turn into the ends of the spindle. The hole should be deep enough so that you can screw in the lagbolt so that there is only about 3/8" to 1/2" of the fine thread of the lag above the surface of the end. If there is too much thread, then it takes too many turns of the top or bottom to disassemble the pieces. You should have at least 3-4 full threads available to hold the top and bottom on. If you do not want to try and turn in the lag that far, then the end of the fine threaded end can be trimmed off to shorten the threads.



With the holes drilled in the ends, you are free to turn the spindle to whatever shape suits you. You can add any sort of decoration to the spindle you like.

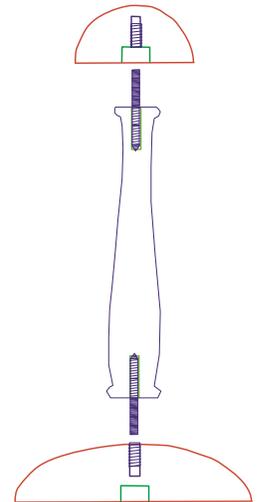
After turning and sanding you can apply the final finish to all the pieces before assembly.

## Assembly

To assemble the wig stand, put the coarse threaded end of the lag screw into the spindle ends. You can screw the lag screw into the ends of the spindle by putting the threaded insert onto the fine threaded end of the lag screw and using a wrench to screw the lag screw into the spindle. Alternatively, use 2 nuts, locked together on the treaded part of the bolt, to turn the lag screw into the spindle (preferred method). Remember that you should try and get the lag screw in so that there is only about 3/8" to 1/2" of the fine thread sticking out.

Then remove the insert (or nuts) from the lagbolt and using an allen key, screw the insert into the top and base pieces. You can add a bit of CA glue to help hold the inserts in if you like.

Now it is just a matter of screwing the top and bottom onto the spindle section and you have your finished wig stand. All the pieces, once disassembled, should fit easily into the 12" x 6" x 4.5" box for storage.



\*\* update in Nov 2012 was only to reduce the spindle length by an inch as the lag bolts can be a bit long and the resulting spindle would not fit in the 12" boxes we had.