

# Assembling and Finishing the Owl Stool

## You will need:

Hammer	Sandpaper - 80, 120, 180, 600
Rubber mallet	Small glue brush (plumbers flux brush)
Old blanket or pad to put on bench top	Small container to hold glue
Flexible Handsaw (Japanese saw is best)	Rags, old toothbrush (for cleaning up excess glue)
Assorted wood blocks (for trimming legs)	Carpenters wood glue (Titebond)

*NOTE - If you are assembling 17" Owl Stool without stretchers , omit steps 3, the 2nd part of 4 and 5.*

1. Begin by sanding your seat to 180 grit, except around the 1" tenon holes, as they will need work later once the tenons are installed.
2. Place the seat upside down on a slightly padded, sturdy workbench. Put legs 1/2" deep into holes, they should feel snug but not too tight. If the top of the leg feels too tight in the seat hole use some 120 grit sandpaper to hone it down a bit. For 24" and 32" stools orient slots and 1/2" and 5/8" spindle holes in proper direction, double check orientation. All wedge kerfs run across the grain (align with pencil marks). See figure #1.

**Gluing:** I use regular Titebond glue, you will have to work fast (drink lots of coffee and listen to fast music). There are slow cure glues available too. I estimate the gluing, except for step 3 to take no more than ten minutes.

3. Glue one end of the small spindle into the middle of the large spindle. Drive home with a hammer and wipe off excess glue with your damp rag. Let dry for an hour or so.

4. After double-checking the orientation (look for pencil marks), remove and glue each leg one at a time, by first brushing glue into the 1" hole and then onto the leg tenon. Hammer the legs all the way into the holes with a metal hammer. ( the holes are angled so make sure you hammer the leg at the same angle as the hole )

If assembling a 24" or 32" stool with lower spindles carefully make sure that the 1/2" and 5/8" holes in the legs are facing in the right directions before hammering (the back leg has a 1/2" hole and the front legs have 5/8" holes, see drawing #1). Now spread glue into the 1/2" and 5/8" mortice holes in the legs and onto the three spindle ends. First carefully spread the front legs apart and insert the front spindle ends into the 5/8" holes while keeping the shorter spindle towards the lower part of the leg; (that will be

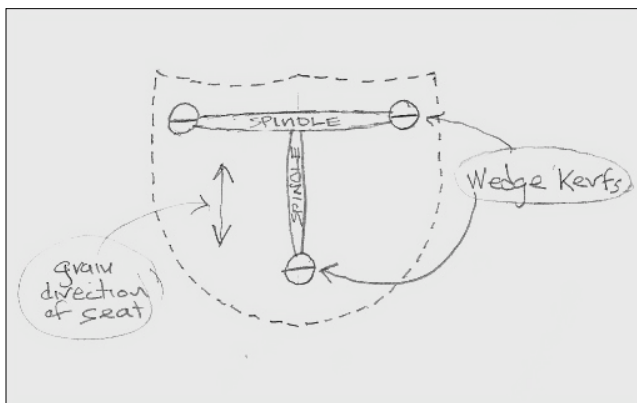


figure #1

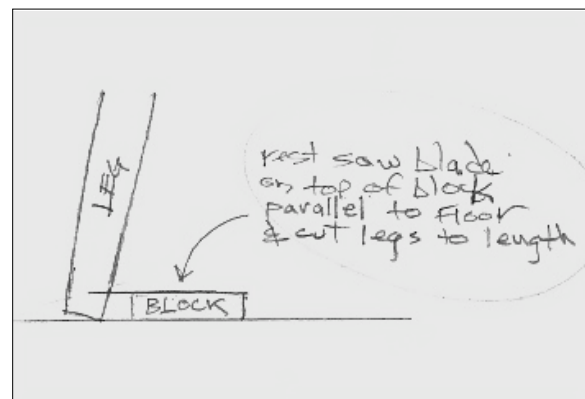


figure #2

up since the stool is upside down.) *Don't drive them home yet.* Now flex the front legs away from the back leg and insert the end of the short spindle into the 1/2" mortice hole in the back leg.

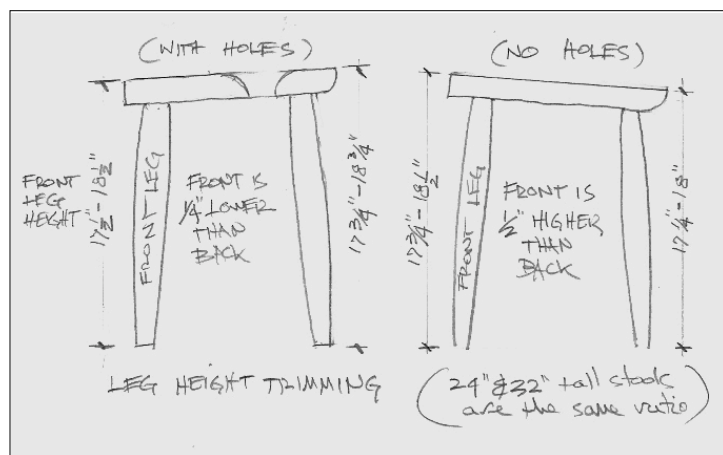
5. Put the stool on its side with the outside of the front leg on a pad on top of the edge of the bench and hit the outside of the opposite leg with a rubber mallet until the two front joints are driven all the way home. The thud, tapping, whacking noise, depending on your hearing and how much coffee you have consumed, will sound more solid when the joints are tight. Now put the back of the back leg on the pad and hammer the center of the front spindle with the mallet, driving the back leg joint together.

6. Stand the stool up on its three feet, best on something solid like a cement floor (you are working fast now . . . go go go before the glue dries), paint some glue on the thin side of the wedges place them into the leg slots and drive them straight and carefully into the top of the leg to expand the tenons into the holes. **Bang Bang Bang**, done done done.

7. Wash off all excess glue with a damp pair of old underwear and your favorite old toothbrush and let cure for a few hours or for as long as is recommended by the fine print on your glue bottle.

8. Saw the three wedged tenons off as flush as possible. Take your time here, being very careful not to saw into the seat. Here the Japanese hand saw can be flexed to conform to the curve of the seat as you saw with a pull stroke. Sand the tenon ends flush with the seat starting with 80 then 120 and finishing with 180-grit sandpaper. Sand the legs and spindles with 180 grit sandpaper, especially any raised grain from washing the glue with water, and finally ease any sharp edges (I round over edges to about 3/32").

9. While the stool is right side up trim the legs to the proper height (see drawings #2 & #3) with the Japanese handsaw held parallel to the floor. You can use a block of wood as a guide. For example to trim a 1/4" off of a leg use a 1/4" thick block of wood and hold the side of the saw flat against the block while cutting through the leg. Chamfer or heavily ease the bottoms of the legs when done.



figure#3

10. To keep the finishing simple, I recommend using three coats of Watco Danish oil.

**1<sup>st</sup> coat** - cover with oil then wet oil sand by sanding with the grain, with 600-grit wet/dry sand paper. Finally, wipe dry and let sit for 24 hrs.

**2<sup>nd</sup> coat** - wipe oil on, then wipe dry and let sit for 24 hrs.

**3<sup>rd</sup> coat** - same as the 2<sup>nd</sup>.

In the shop I usually use Waterlox tung oil for my last two coats, you can do that or try using wax, if you prefer.

**IMPORTANT NOTE** - Discard *all* of your oily rags safely by placing in water or hanging outside to thoroughly dry. *The vapors can start fires!*

*Have fun and good luck!*

*Geoff Warner*