



# 3 Different Ways to Duplicate or Turn Multiples

Presented by

Robert Love and

Ed Siegel

August 14, 2018

Woodturners Committee Meeting

## Split Wood Method

Split wood turning is good for producing 2 pieces that are the same (or very close to the same)

Examples:

- Handles for a 3 piece rolling pin
- 2 screwdrivers (*1 standard and 1 phillips*)
- Draw knife handles
- Or any spindle turning that you need 2 pieces.

1. Start with a length of wood that is equally split down the middle and in half to produce 4 pieces of the same size.



2. Using turners double sided tape or a paper glue joint, attach two pieces together.



3. Clamp and let turners tape bond or glue to dry. Be sure all the edges are lined up for best results.



4. Mark Center on each end.



5. Mount between centers and start turning your desire shape. Be sure to leave both ends untouched. These will be used for alignment in a later step.



6. Finish turning your shape and sand.

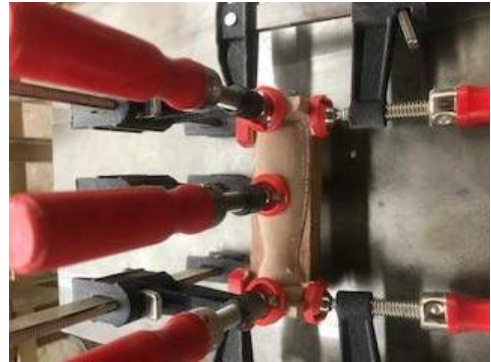


7. Separate the finished turned pieces and remove any adhesive

8. Glue the turned halves to the other 2 blanks created in the first step. Use the squared ends to align the halves together.



9. Use clamps on the square ends to ensure the alignment is good and clamps in the middle to get a good glue bond



10. Mount between centers again being careful to stay on the original center marks. You may need to use an awl to enlarge the hole to the unturned half. With the wood spinning you can see a ghost image of the original turning. Carefully start removing the wood down to the original turning. Stop the lathe often to check your progress.



11. Continue turning until the two halves match or are very close (so that they can be sanded to match)



12. Turn the ends down for final parting off

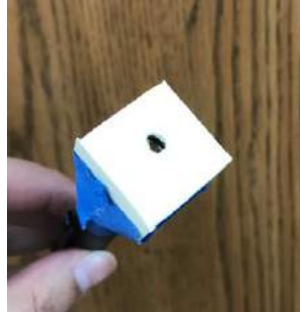
13. Repeat for the second spindle



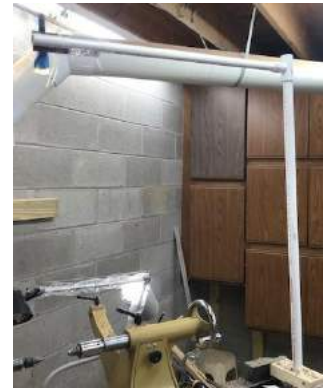
## Shadow Method – Based upon David Reed Smith's Demo

This method is good for creating unique copies that you can create a template for. The template can be created on a drawing program with a centerline or even photocopied from an original turned piece.

1. Needs a single source light, so **MUST** turn off the other lights.  
Multiple light sources will lead to multiple shadows or fuzzy shadows.
2. A cheap LED Flashlight will work if you make a pinhole aperture. This will help align the light and make a sharp shadow



3. Must be mounted high so as not to make a large shadow from a small piece. If the light is mounted close to the spindle, a large shadow will be produced from a small piece and will result in a very small turning.



4. Align the light over the template so that a shadow is cast around a cylinder equally. This ensures the light is casting a shadow evenly and not offset.

Not aligned



Aligned properly



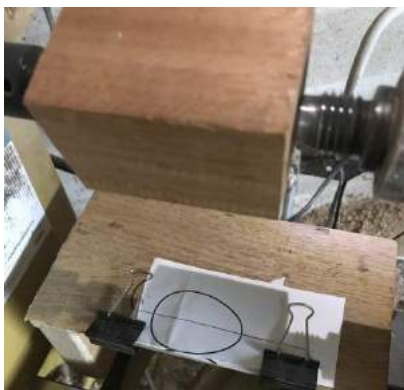
Align the template centerline with the shadows from the center points



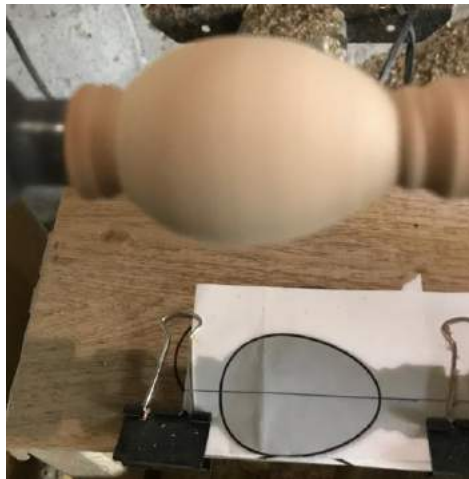
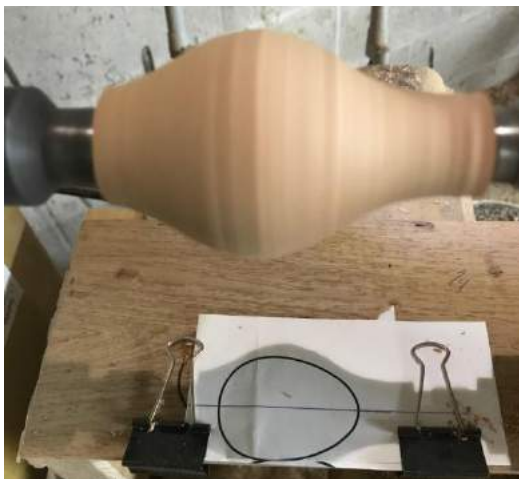
5. Even when mounted high, the size will not match perfectly. To adjust for this, turn a cylinder of the maximum size of the final turning. Place light above and then mark the shadow at the maximum point.  
Measure the shadow diameter and do a little math to determine % increase required. Reprint the image with that percentage increase **OR**  
Use a compass set to the difference in size and carefully scribe a line on the template.



6. Carefully turn the shape down so that the shadow matches the template



Clear the template often



See David Reed Smith Website for a complete explanation of this technique to produce spheres.  
<http://www.davidreedsmith.com/Articles/ShadowSphereJig/ShadowSphereJig.htm>

## Therming

Turning multiple spindles of the same shape at once.

1. Multiple spindles are mounted equally spaced to two faceplates using screws into the centers of each spindle.



2. The first face is turned to the desired profile. This results in all the spindles having the same profile.



3. The spindles are then rotated equally and re-secured to expose an unturned face.



4. Turn the desired profile again



5. Repeat the steps above until all the faces have been turned.

The results are 4 sided spindles with the same profiles. If you rotated each spindle less than 90 degrees, you will get multisided spindles. (45 degrees will make an octagon shape. 60 degrees, 6 sided, etc.)

This method is good for stair spindles, Chair spindles, possibly a stylized chess set ...

