



International Association of Penturners

Rotating Pen Stand

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I realize one item that most anyone who makes and uses pens could really use: a pen stand of some sort. Searching the various vendor sights will yield several choices. I often remember my grandfather's smoking pipe rack. It was round, had a base and his pipes were placed in it to display them and make them easily found and retrieved. The entire unit rotated on a base such as a Lazy Susan. While searching I found one and was reminded of the friend who made it. So, I must give some credit to Bill Jackman of Utah. We are both members of the Pen Maker's Guild and have visited several times at the Utah Woodturning Symposium. A review of Bill's revolving pen stand can be seen here: <https://tinyurl.com/yd6eeuc8>.



Does your desktop look like mine?



How about this instead? Read on.



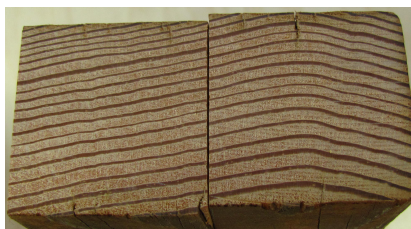
Bill Jackman's idea.

If your desktop looks like mine then it is time for us to organize our pens and tidy up just a little.

I decided to make myself a revolving pen stand and share my progress. Please take a look at Bill's revolving pen stand to have an idea of where this article is going. This was a fun project, involved minimal turning and produced functional piece. Thanks Bill Jackman for an idea.

I did not really have any nice wood to use and was going to use some finger-jointed 1x8 pine that was rather plain. But, I wanted to make one before purchasing a piece of nice lumber.

As luck would have it, we removed lots of 1x8 pine from an old office. I realized the boards were old growth pine after noticing the tightness of the growth rings..... 20 rings in a two-inch thick 2x4. So, I used a section of 1x8 and a short piece of 2x4.



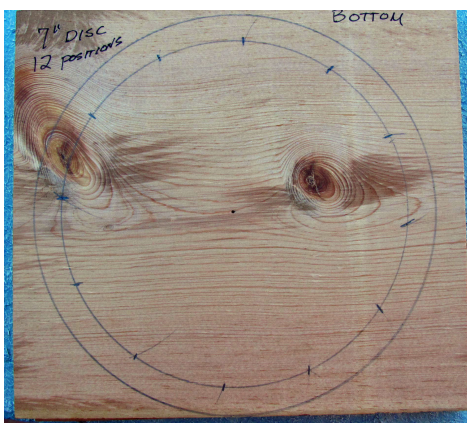
The ends of the 2x4 pieces I used to make the spindle to be placed between the upper and lower shelves of the rotating pen stand are shown at the left.

I had to order a Lazy Susan bearing and decided to use the 4-inch size. Only 6-inch sizes were available locally and I thought that was too large. As I found out this Lazy Susan bearing is tricky to use.



The Lazy Susan bearing I used for this project is pictured on the left. Since the boards I was to use were 1x8's I decided to make the lower shelf 7-inches in diameter and a 5-inch diameter for the upper shelf. So, I cut four sections of the 1x8 into 8-inch lengths. They were old, dark, dirty and grimy from being in the offices of a large welding/manufacturing facility for the last 85 years. So, I ran the 4 pieces through my thickness planer and reduced the thickness to ½-inch, planning both sides to expose the original wood underneath the dirt.

Next, I used a compass and drew a 7-inch circle on one piece of the pine. I then moved in ½-inch and drew another circle and divided the circumference into 12 arcs of equal length. The pen stand is going to hold 12 pens around it's circumference. There are several ways to divide the circle's circumference into equal arcs. Remember high school geometry? If not, then Google is your helper on this. These 12 division marks will be the location of a small blind hole for holding the pen's end while resting in the pen stand.



The base shelf marked off on the piece of 1x8 pine.

I used a v-grove router bit in my drill press to drill a blind hole at each of the 12 division marks. These blind holes will be to anchor the pen into the pen stand. I wanted to use a core box bit to drill a rounded blind hole but had no luck in locating it.

The v-grove bit for cutting the blind-holes in the pen stand base.



I used my band saw to cut out the 7-inch disc from this piece of 1x8. A saber saw will also work well, or even a scroll saw.

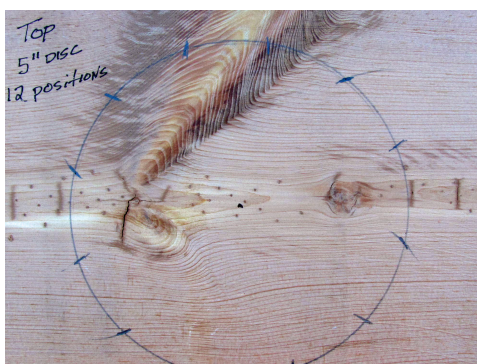


Cutting the 7-inch disc from the pine board. The v-grove blind holes can be seen on the circle ½ -inch in from the outer edge.

I cut just outside the line and used a drum sander on my mini lathe to sand the disc to the line. This piece of the stand is now ready to sand and apply a stain.

Next, I drew the 5-inch circle on another piece of the pine. Again, I marked off the circumference into 12 equal arcs. These marks will be the center of a through hole. The diameter of these through holes is ¾-inch. I used a forstner bit to drill these.

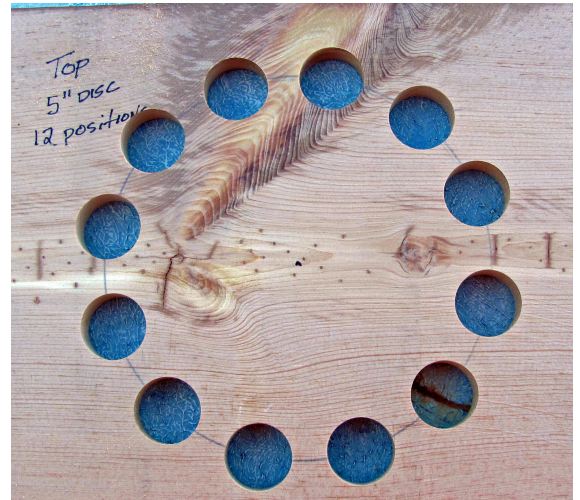
Once the 5-inch disc is cut out the holes will be cut in half also. These will be the resting place for the pens.



The 5-inch top shelf for the pen stand marked and ready to be drilled then cut out. I used a ¾ inch Forstner bit centered on the marks.

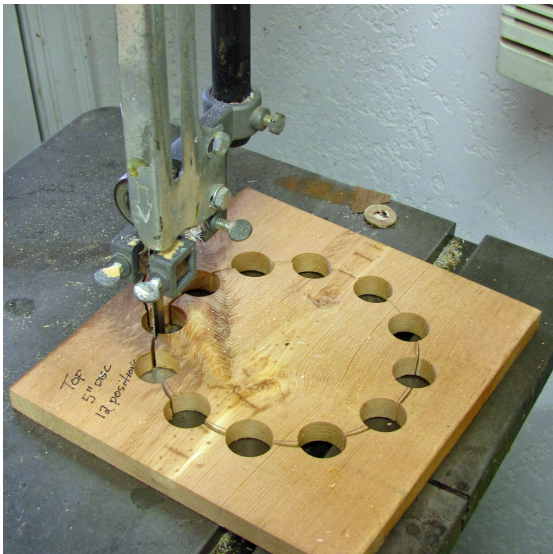


Drilling the $\frac{3}{4}$ -inch holes in the top shelf.



The 12 holes drilled in the top shelf.

Notice the circumference of the disc passing through the center of the holes.



Cut out the 5-inch disc staying just outside the line.

The 5-inch disc is cut out on the band saw staying just outside the line. Again, a saber saw or scroll saw could be used.

The drum sander is now used to tune the diameter to the disc's circumference line.



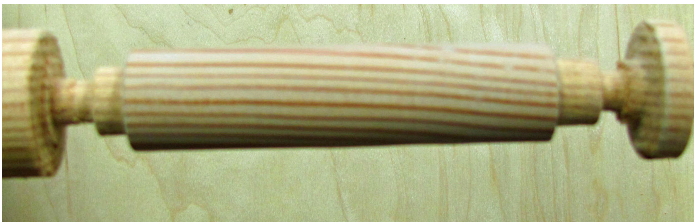
The 5-inch top shelf being tuned with a drum sander mounted on a mini lathe.



The next step is to make the spindle to attach the bottom and top shelves together. I cut a 2x4 10-inches long and then ripped it in half to get the blank for making the spindle. I mounted the blank between centers and turned it round. I decided to make the distance between the two shelves 3-inches.

I drilled a 1/2-inch through hole in the bottom shelf and another half way through the top shelf from the underside. These holes will fit onto tenons turned on the ends of the spindle. The upper tenon will be 1/4-inch long and the tenon for the bottom shelf will be 1/2-inch long.

The spindle marked off for length and tenon lengths.



The spindle sanded and ready for staining.

I sanded the spindle and applied the stain while it was still on the lathe. It will be removed and the waste cut off later.

Next, I cut a 5-inch square from one of the boards to be used as the base under the bottom shelf. This will be the base on which the Lazy Susan bearing will sit on. So, there are there are 5 pieces. From the very bottom up they are the base, Lazy Susan bearing, lower shelf, the spindle and the upper shelf. The lower shelf has a 1/2-inch through hole and the upper shelf has a 1/2-inch blind hole half way through from the under side. The wooden pieces were sanded and stained and ready for assembly.



All of the pieces of the rotating pen stand.

Assembling the Lazy Susan bearing between the base and the lower shelf proved to be a bit tricky. The instructions were confusing to say the least. I will try to tell what I did without too much confusion.

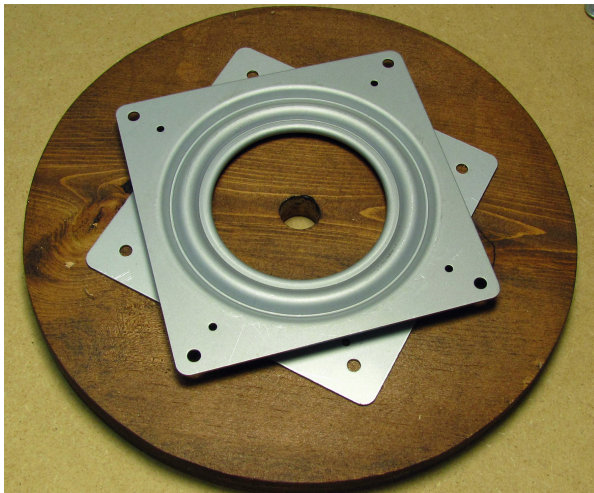
First, I placed the Lazy Susan bearing on the base and marked the hole's location. I drilled a 5/32 hole at these 4 locations in the corner. I then counter drilled half way through from the underside. This will allow the screw head to be recessed and not interfere with the base resting on my desktop.



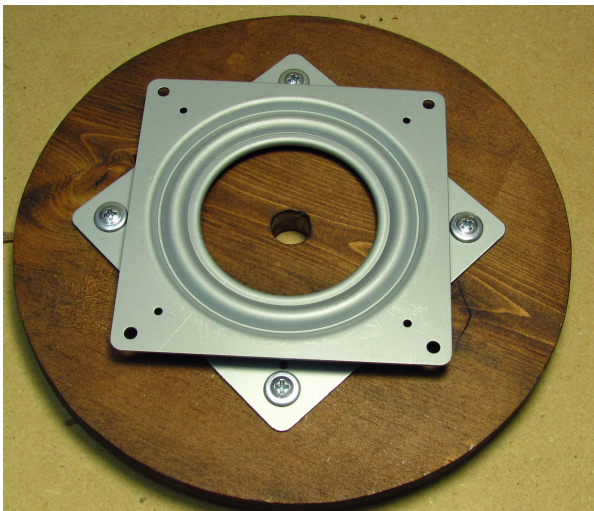
The 4 holes and counter bored holes from the under side of the base.

Image (on the right) also shows two of the screws with their heads recessed. The screws are sheet metal screws to thread into the holes predrilled in the Lazy Susan bearing. The screws required for my bearing's holes were #6 x 1/2 -inches long. Do not attach the Lazy Susan bearings assembly to the base yet. It must be attached to the lower shelf first. Experience is an excellent teacher.

The bearing assembly needs to be attached to the lower shelf first. Lay the lower shelf topside down and center the bearing assembly on it and attach with 4 screws. Be sure they length will not exit through the topside. I used 3/8-inch long small wood screws.



The bearing assembly centered on the underside of the lower shelf. (On the left)



The bearing assembly attached with the proper screws. (on the left)

The base is now ready to be attached to the other half of the bearing assembly. Be sure the screws are the proper size and length for the bearing assembly used. Do not over tighten, which is also true for the screws into the wood of the lower shelf.

Lay the bearing assembly with lower shelf attached so the bearing assembly is on top and place the square base on the bearing assembly aligning the holes with the drilled holes in the wood. Attach with the sheet metal screws.



The base attached to the bearing assembly.

Place the bearing assembly on the base that was just attached. The lower shelf is not on top. Glue in the spindle with the longer tenon glued into the hole in the center of the lower shelf.



The spindle glued into the lower shelf.

The top shelf is now ready to glue onto the spindle. The shorter tenon should be on top. Glue the top shelf in place being sure to align the half holes with the blind holes in the base (the holes cut with the v-groove router bit). This will insure the pen will stand straight in the stand. The rotating pen stand is not complete and ready to hold your 12 favorite pens keeping them ready to use.



The completed rotating pen stand. I now realize the base is too large.

Next time I will make it smaller so the corners do not show or the base will also be a disk. Experience is a great teacher.



The pen stand filled with 12 of my favorite pens I use regularly.

This rotating pen stand's design is not written in stone. Take this idea and embellish it to make it fit your needs. Be creative and improve on this design.

I hope this article is found to be motivating and useful.