

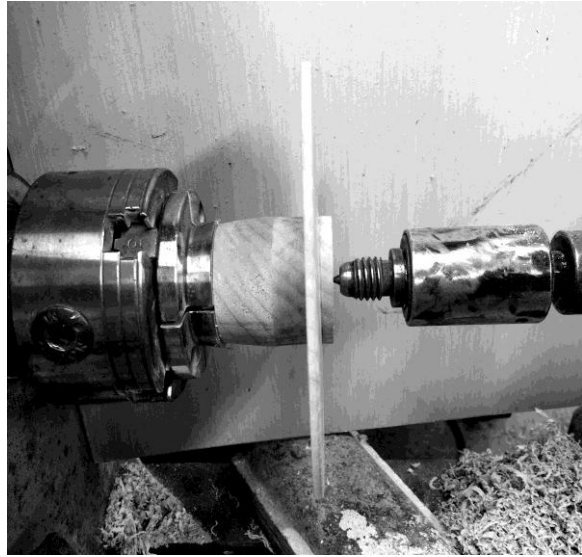
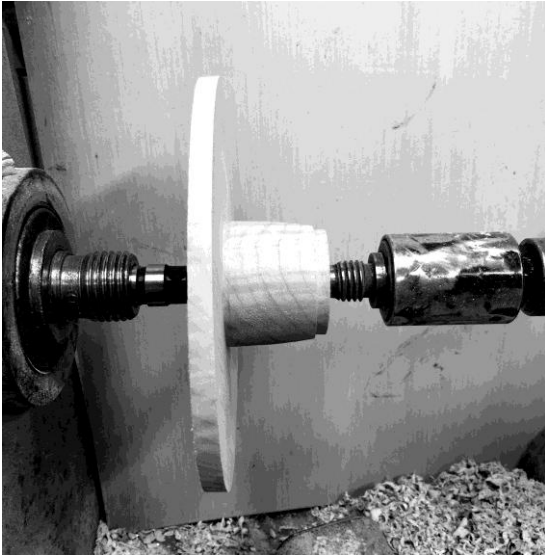
Return of Saturn

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7" X 7" X 2" – bowl blank

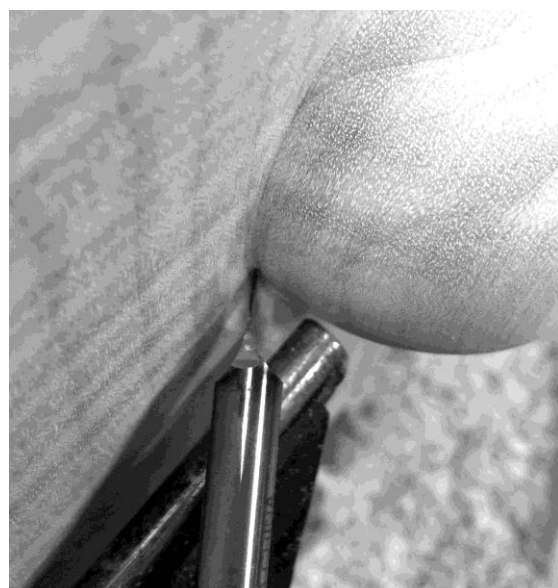
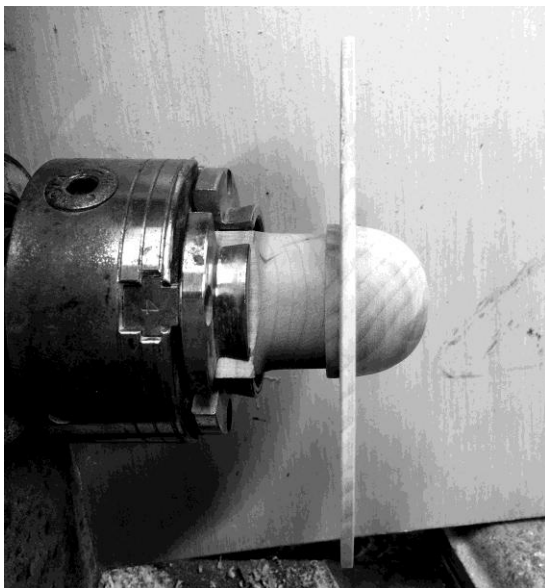
3" X 3" X 2" – jam chuck

5" X 5" X 3" – large offset chuck

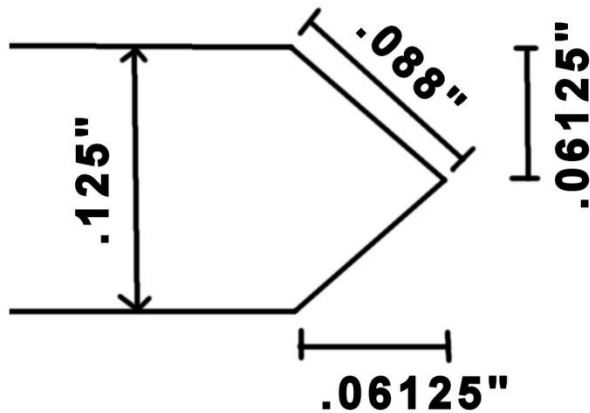


Mount the bowl blank between centers, turn the bottom of the bowl to a wide flat brim leaving approximately 1.5" in the center for what will become the bottom of the bowl. The wide brim should be left approximately 3/8" thick and as flat as possible. Turn a tenon on the bottom of the bowl to match your chuck. The corner where the bottom of the bowl meets the wide flat brim should be a very sharp corner.

Mount the bowl in your chuck. Turn the wide flat brim of the bowl down to consistent 1/8" thickness. Leave the same 1.5" area in the center for the rim of the bowl so that it protrudes above the surface of the brim by 1/8" with a sharp clean corner and aligned with the outside of the bowl on the bottom.



Hollow out the inside of the bowl with the first 1/8" of the inside being left straight. The thickness of the rim should be left 3/16", it can be chamfered slightly to make it appear thinner. Turn a jam chuck to fit the inside of the bowl. The fit should be tight but not too tight as you risk splitting the bowl if you force the bowl over the jam chuck. With the jam chuck fit properly you can turn the final shape of the outside of the bowl. The outside profile should closely match the inside profile of the bowl, a rounded bottom with consistent wall thickness is a pleasing shape.



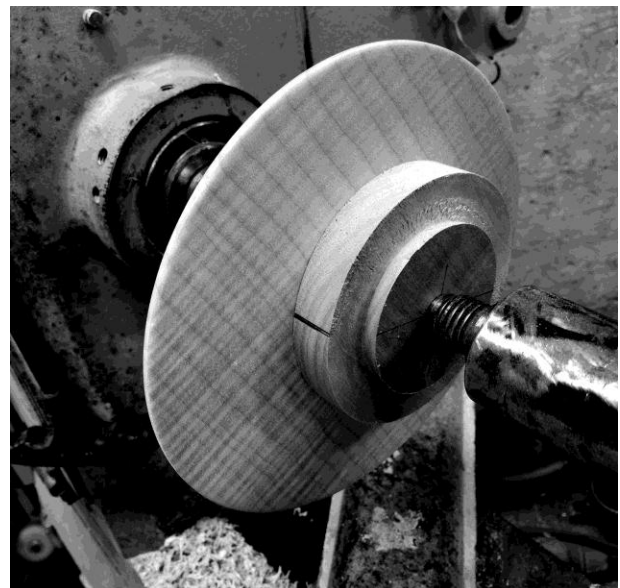
Using a very thin (1/32") parting tool make a parting cut starting at the corner where the bowl meets the brim. The cut should be 45 degrees and should be cut so that it is slightly more than half the thickness of the brim. For a 1/8 thick brim (.125") the cut should be approximately .088" deep to account for the angle of the cut. Make the same cut on the bottom of the bowl. If

the 2 parting cuts are aligned and cut to the correct depth the ring should be cut free from the bowl and should rotate freely.

In order to turn the offset rings we need to make a jig that performs 2 functions:

- 1) Chuck the bowl in an offset position
- 2) Easily allow us to make cuts aligned on the front and the back of the brim.

Turn the blank between centers to a true cylinder, form tenons on both ends, make an alignment mark and part the jig into 2 pieces with 80% of the thickness near the headstock.



Chuck each half of the jig, clean up the face and then hollow the inside of each half leaving 3/8" wall thickness. Place both halves of the jig between centers in the same orientation it was originally turned in. Insert the wide brim bowl between the 2 halves of the jig with both halves aligned and apply pressure from the tailstock to secure the bowl. The hollowed jig will allow you to move the bowl off center, pressure from the tailstock will hold it in place. The sides of the jig align the 45 degree cuts on the front and back.

Repeat the process with larger or smaller offset jigs to create more offset rings.