

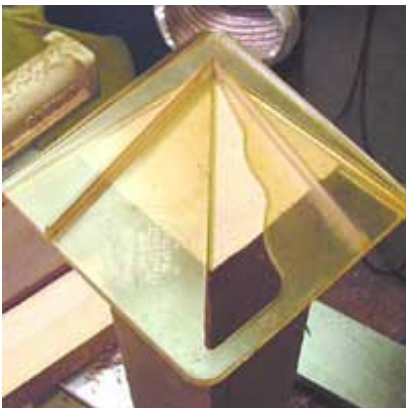
Woodturning Project Tutorials by Larry Hancock

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Rolling Pin



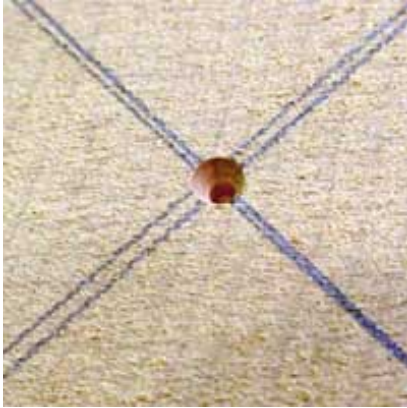
The blanks for all the rolling pin parts. A 3" square of hard maple, two hard maple squares for the handle shafts and two purple heart squares for the handles. The overall length of this pin is 22 ½". The barrel is 12" by 3", each handle is 4 ½" long. Rolling pins come in several sizes, just pick a size and turn your favorite cook one.



I am marking the end of the blank for the barrel from all four corners to find the center.



To drill a starter hole for the spur center point I use a center drill pictures on the left. The center drill is double ended with a short straight pilot end and a 60-degree angle. Pick the size center drill that matches the drive center point you are using. The same size or smaller drill will work best. You do not want a larger center drill than your spur point or it cannot act as an accurate guide.



You can see that the corner lines differ slightly because the blank is not a perfect square, which is fine since we are making it round. To find the exact center of a piece like this always draw a line from all four corners and the exact center of the blank will be within the small irregular shape the four lines create.

The center drill hole should be small enough so the point of the spur will fit in it but not allow the spur tips to touch the wood until you apply pressure to seat them. The starter hole should not be so large the spur point cannot touch the sides. We want a guide for the spur, not a big clearance hole.



Seat the spur into the wood on a solid surface with a soft face hammer that will not mar the spur itself. Never leave the spur in the headstock spindle and hammer a piece of wood on to it. A blow to the spindle itself will ruin the bearings in the headstock by driving the race and rolling elements together, causing dents in the race and flats on the rolling elements. If you abuse your equipment it will fail, take care of it and it will last many years.



To center the tailstock end I true up the end. It can be slightly concave or convex. I just want a smooth surface.



Take a pencil or the point of the skew and make an indicator circle at what looks to be the largest diameter of the solid wood we will have after roughing. This gives you a visual indicator of how well centered the blank is. Stop the lathe and see if the circle is the same distance from the edge of all four flat areas. Adjust the blank until centered.



Start roughing at one end and work back across the blank to the other end. You risk splintering the wood out in sections by starting to rough in the middle of a blank.



When you reach the other end, reverse the cut direction to remove the remaining corners.



Using a peeling cut with the skew to form a tenon for the chuck. Arc the skew toward center to reach the desired diameter.



To form a straight tenon, pull the skew to the side after reaching the desired diameter and the flare disappears. The jaws on a Stronghold chuck grip a straight tenon. Make the shoulder of the tenon straight or slightly concave.



Size the blank to over the 3" desired diameter at this point. The amount will depend on the alignment of your lathe and its ability to drill on center. Drilling for the shafts may cause some slight out of trueness that we will have to correct for later.



Rough the blank down to the sizing cuts. The barrel will be finish turned later so do not worry too much with surface finish at this point.



True the end of the blank in preparation for drilling. An uneven surface could cause the drill bit to deflect off center. I am using the long point of the skew.



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The funnel shaped starter for the drill.



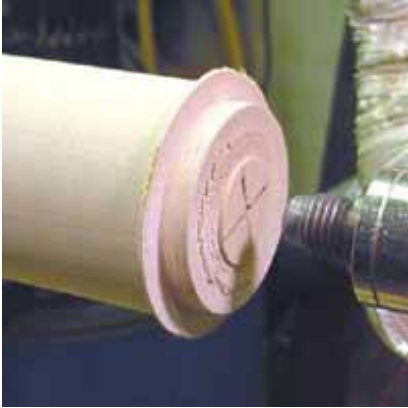
I am drilling to a depth of 2" with a 1/2" drill. The tape is my depth stop set for the 2" plus the length of the tenon.



Chamfer the opening.



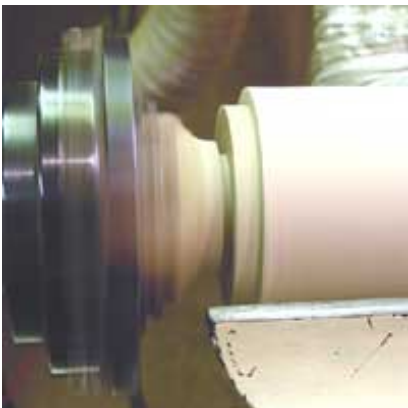
Seat the tailstock center in the blank and true the tenon for the chuck if needed. We want the hole and the tenon to be concentric.



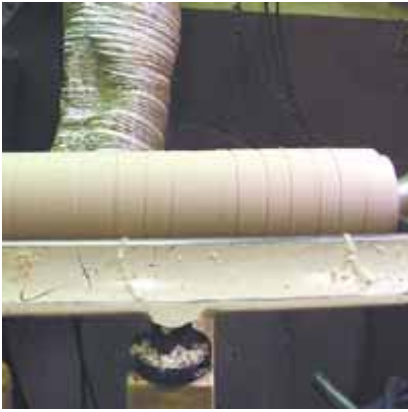
Reverse the blank and perform the same truing and drilling operations on this end.



The Oneway cone center I will be using to hold the barrel for the final turning. The small dummy rod holds the center while screwing attachments on and off. The threads on the center are $\frac{3}{4}$ " 10 threads per inch.



I have a wood scrap in the chuck that I turned a $\frac{1}{2}$ " tenon and a square shoulder on. This centers the shaft hole on the headstock end and acts as the drive center under compression.



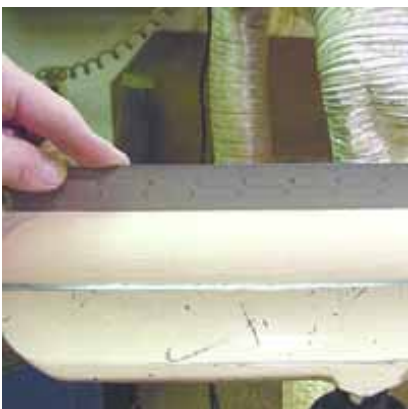
With the cone center in the tailstock end of the barrel, I now size the barrel to its finished diameter. I sized to 3" plus about 1/64" to allow for wood removed during the sanding process



Light cuts with a sharp skew will leave a good finish for sanding on most woods.



I am using a 1 1/4" skew with a straight profile on the edge to take light scraping cuts that remove any ridges. Starting at one end and working across the barrel, I can make this a true cylinder ready for sanding.



Check the barrel with a straight edge. You want a flat surface all the way down the barrel length. If a dip is found mark the area and turn the rest of the barrel down to it.



I wet the wood for sanding. The rolling pin will be washed at some time and that will raise the grain. I am pre conditioning the wood and removing the grain raised by that washing. I also reverse the lathe direction between grits of sand paper and re wet the wood. Grain pushed over and uncut by one grit of sand paper is then cut when reversed by the next. I sand up to 400 grit on this project.



Turn the tenon away and clean up the endgrain. Make the end straight where the face of the handle will contact the barrel.



The purple heart blank for the handle. The piece is 1 3/4" square because that is the thickest piece I have. Rough the blank to round.



True the end in preparation to drilling. I use a flat side of the skew to check the end.



I am drilling a 5/8" hole to fit over the shaft. Drill the hole deeper than the length of the finished handle so there is a hole all the way through after parting off. I am making the handles 4 1/2" long. The hole in the barrel is 1/2". The larger diameter shaft in the handle will give me a positive stopping point when I glue the shaft in place.



Part through the handle cylinder at this point.



The cylinder parted off with a 5/8" hole.



I use a scrap of wood with a tenon for the handle blank drive just as the barrel was turned. This ensures the handle hole is concentric with the outer shape turned.



The handle blank between centers.



I turn a simple shape for the handle without any beads or grooves that will collect flour and dough. This will make cleaning the rolling pin much easier.



After sanding, remove the tailstock center and support the handle with one hand to true the end.



Reverse the handle on the wood drive, true the end and sand.



I apply paraffin wax to both ends while the wood is rotating. Melt the wax into the wood with a paper towel or soft cloth while the lathe rotates. The wax will act as a lubricant where it contacts the other wood parts and they will move freely together.



The finished waxed end of the handle.



I take the measurements from the first handle and make sizing cuts on the other handle.



Comparing the profiles of the two handles. Complete the second handle the same as the first.



The hard maple shaft sized and ready for turning to finished dimensions. The 1/2" diameter end for gluing in the handle I make about 1 1/2" long. The 5/8" diameter section for the handle I leave about 1/16" longer than the handle length so it can move easily.



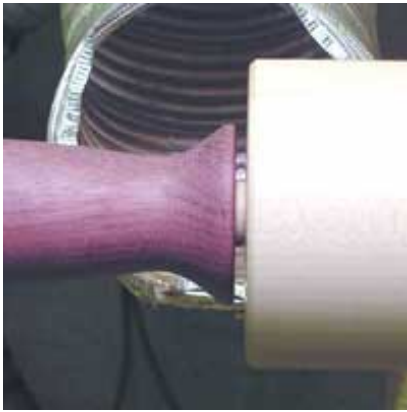
The straight section of the shaft turned to finished size and sanded.



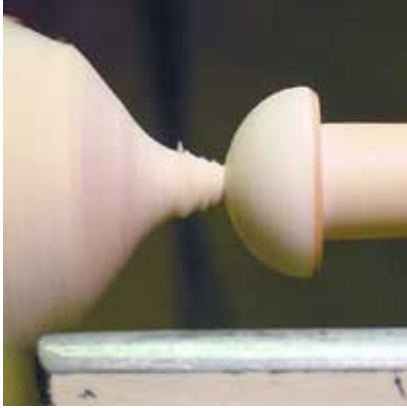
The section the handle rides on I rub the paraffin wax into while the lathe rotates. Do not get the wax on the 1/2" end section.



Hold a paper towel against the rotating wood to melt the wax into the wood.



Before parting the shaft off, test the handle and barrel to see how much clearance you have. This is a little too much of a gap so I will turn a little more of the end down to $\frac{1}{2}$ " and recheck.



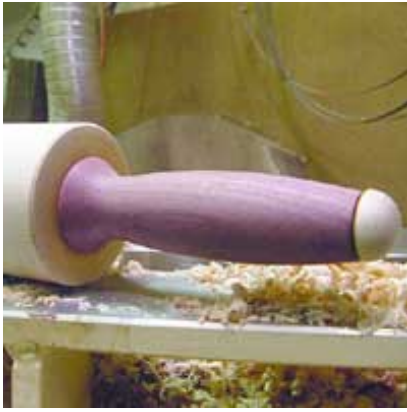
Turn the end of the shaft to the shape desired and part off.



Reverse the shaft in the chuck; clean up the end and sand.



All the parts of the rolling pin ready for assembly. I use Titebond II yellow glue.



The finished rolling pin handles glued in place. I do not apply any finish to the wood unless requested. Apply a salad bowl finish or cooking oil if you want. The owner should apply some oil after washing and drying the wood to maintain the rolling pin.