

Southern Turners Project Sheet

Christmas Bell



This project explains how to make a basic bell as a Christmas decoration. The blank size is up to the individual, but to begin with, try a spindle blank approximately 70 mm diameter and 110 mm long this way you can use a standard 50 mm jaw set on a scroll chuck. Branch wood is perfect for this project. The project is an excellent one for learning to turn to moderately thin wall thicknesses. Ensure all safety equipment is used appropriately.



Locate and mark the centres of both ends of your blank with an awl or other suitable device.



Mount between centres. I prefer a step drive centre and a ring live centre.



Use a spindle roughing gouge, bowl gouge (or skew chisel depending on your preference and/or skill level) to turn down to round.

Determine the proportions of diameter to length – mark out, turn a tenon on one end to suit your scroll chuck and use a parting tool to part off to length.



Mount the blank in your scroll chuck.

Start to define the outer shape of the bell using a spindle gouge, scraper or skew chisel.



Use a Forstner/saw tooth bit in a Jacobs chuck or other suitable hollowing technique to remove the bulk of the waste.

Measure the depth of the inside and mark this on the external surface for later reference.



Use a bowl gouge or scrapper to remove the waste from the centre of the bell.



Use a feeler gauge to determine the wall thickness. A thin wall at the opening looks best but the wall thickness can increase toward the top of the bell.



This is a home made feeler gauge made from a piece of wire. Note that the ends have been turned in to prevent scratching of the bell.

Always have the gap between the ends wider than the wall thickness of the bell. Place one end of the gauge against the inner wall of the bell and eyeball the distance between the outer end and the bell wall. If this gap is constant as you push the gauge further into the bell then the wall thickness remains constant. If the gap decreases then the wall is getting thicker.

Complete the hollowing to your satisfaction and sand the internal surfaces.

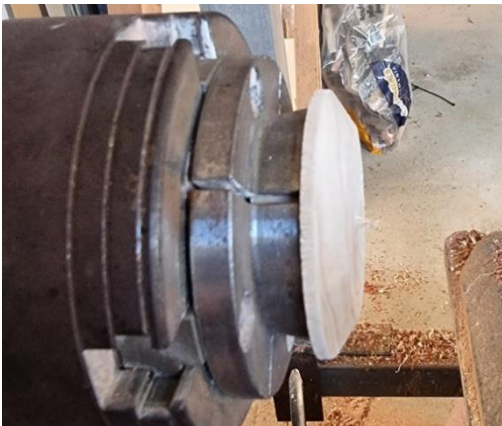
Refine the outer surface of the bell if necessary using the reference line established earlier to ensure you don't turn the walls too thin.



Drill a small diameter hole, say 1.6mm through the top of the bell making sure it penetrates deep enough so that it will pass all the way through the top of the bell when parted off.

Sand all completed outer surfaces.

Shape the top of the bell using a spindle or detail gouge. Part off with a parting tool or saw.



Do not discard the stub left behind after parting off. This stub now becomes the jam chuck for final finishing of the top of the bell.



Reverse the bell over the jam chuck and align using a cone live centre in the hole drilled previously. Take fine cuts to complete the top of the bell.



Sand the top of the bell. Tailstock support can be withdrawn for the final sanding of the centre of the top as long as light pressure is applied and directed toward the headstock.

The basic bell is completed, now for the clapper, toggle and finial beads.



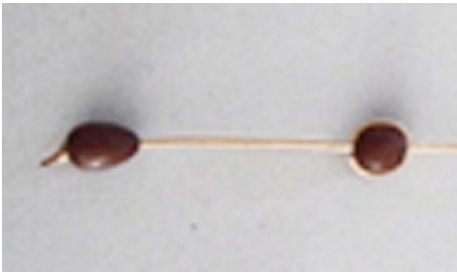
Mount a contrasting coloured blank between centres. Here the blank is secured using the inner faces of the scroll chuck jaws. Turn to round.



Drill a small diameter hole into the blank making sure it is at least 25 mm deep. Turn a small bead. The diameter and length is up to your personal tastes but I would suggest 12mm diameter or less and about the same length. Turn two more beads of the same or a symphatetic shape. Don't forget to drill the holes before shaping the beads.



Use a thin cord to assemble your bell. Note that the clapper has a double loop of cord around it to aid balance. The knot is positioned to ensure the clapper sits just inside the bell housing when assembled.



Thread the upper section of the cord through the bell housing then fit the finial bead. Knot the end of the cord to make a hanging loop or use CA glue to form the loop for a neater look.



Your completed bell may look something like this.

Use your imagination to come up with variations on this theme. Colour and pyrography can be used to further enhance your designs.

Keep your tools sharp and enjoy the experience.