



Example with a stem made from Oak and a Yew cap, approx. 3" high, cap 2 3/4" diameter

There are often a number of ways of doing the same thing. The method suggested here is one way. As long as it is safe and produces a high quality result, feel free to incorporate your own ideas. These notes assume that you have access to a woodturning chuck fitted with 2" (50mm) jaws.

Wood required – Stem - about 2" diameter by 4" long. Cap - piece of branchwood with bark attached about 2 3/4" diameter by 1 1/2" long. You could use the same wood for the stem and cap, or contrasting woods.

1. Mount the Stem blank between centres, turn to round using a spindle roughing gouge and form a spigot on one end to fit your chuck jaws using a standard parting tool. Remove from the lathe.
2. Mount the Cap blank between centres and form a spigot on the end that is to become the top of the Cap to fit your chuck jaws. Take care that you do not damage the natural edge. Remove the blank and centres from the lathe.
3. Fit your chuck onto the lathe and mount the Cap blank. Shape the underside of the Cap using a spindle gouge making it concave so that the Cap will overhang the Stem in the finished box. Work out the diameter of the recess required in the Cap to fit the spigot that you will create on the Stem by comparing the diameters of the Cap and Stem sections. Mark this on the Cap then use a sharp parting tool to define the edge of the recess, cutting inside the mark about 1/8" deep. Make sure that the edge of the recess is parallel.
4. Remove the waste from the rest of the recess using a spindle gouge, creating a concave recess to reduce the thickness of the Cap. This should reduce the chance of it splitting.
5. Smooth the underside and recess with abrasives taking care not to round over the edge of the recess. A typical sequence would be 120 grit, then 180, 240, 320, 400 grits. Do most of the work with the 120 grit and do not move on to the next grit until ALL the marks from the previous grit have been removed. Decorate the recess if you wish.
6. Apply a coat of sanding sealer to the underside and bark edge, your choice of cellulose, shellac or acrylic, brush or spray. Allow to dry then smooth just the underside using the finest grit used previously.

7. Apply a coat of paste wax to the underside only with a soft cloth, or fine Webrax. Start the lathe at moderate speed and use a soft cloth and moderate pressure to spread and melt the wax. Increase the lathe speed and reduce the pressure to bring up the shine. Check carefully for streaks, excess wax, etc. Remove the Cap from the chuck. You could use any other finish of your choice.
8. Mount the Stem section in the chuck and true up the exposed end of the blank. Transfer the diameter of the Cap recess onto the end of the Stem then inside that, mark another line to show the thickness of the spigot. Now, hollow out the inside of the box. There are lots of ways to do this.
 - You could simply drill out the bulk of the waste using a suitably sized Forstner or Saw toothed bit.
 - You could use a standard Flat bit, preferably with the central point shortened.
 - You could use any type of small hollowing tool.
 - or you could simply use a spindle gouge.
- Complete the turning of the inside, probably with the help of a small round-end scraper, ensuring for example that you remove any marks left by a drill point and that there is a clean transition from side wall to base.
9. Use a sharp parting tool to cut the spigot for the Cap. Reduce the spigot until the Cap is a tight fit. We are going to use the Stem as a jam chuck to complete the top of the Cap. If you take a bit too much off, either use kitchen roll to pad out the fit, or dampen the spigot.
10. With the Cap section in place, complete the shaping of the top of the Cap with a spindle gouge, taking light cuts to avoid damage to the bark edge and to reduce the chance of dislodging the Cap. Bring up the tailstock fitted with a revolving centre to support the Cap if you wish, removing it for the final few cuts.
11. Smooth the Cap with abrasives, seal and polish.
12. Ease the fit of the Cap on the Stem if necessary so that it can be removed easily but still 'pops'. Set the finished Cap aside.
13. Measure the inside depth, mark this on the outside plus the thickness of the base. Part in on the waste side of this line to define the length of the Stem.
14. Shape the outside of the Stem using a spindle roughing gouge for most of the work, finishing with a skew chisel or spindle gouge. Bear in mind that a mushroom is a natural object and there are very few straight lines in Nature, and natural curves are smooth and continuous.
15. Smooth, seal and polish the inside and outside of the Stem.
16. Part off the Stem making the base very slightly concave. If there is sufficient wood left in the chuck, cut a jam chuck to drive the Stem so that you can finish turn the base. Otherwise, mount a piece of scrap in the chuck and cut a jam chuck. Decorate the base to match the underside of the Cap if you wish.
17. Smooth, seal, sign and polish the base.
18. Assemble and admire !!!!!