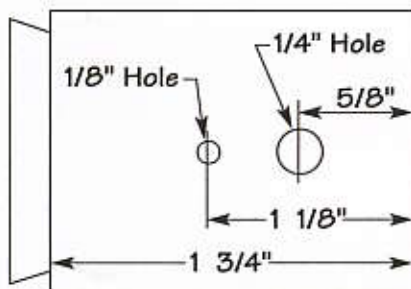


Birdhouse Ornament #1

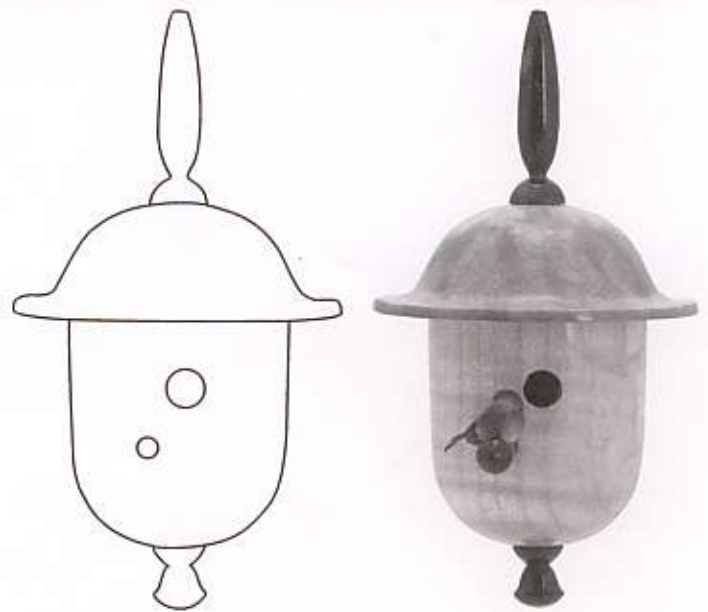
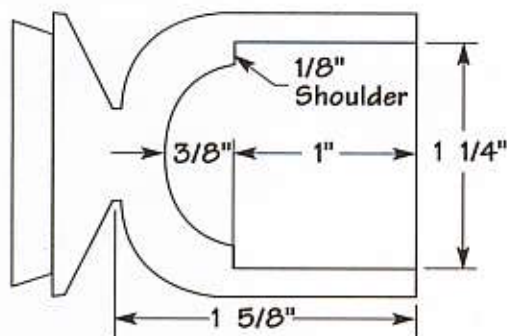
Craft Supplies USA

Turning the Body

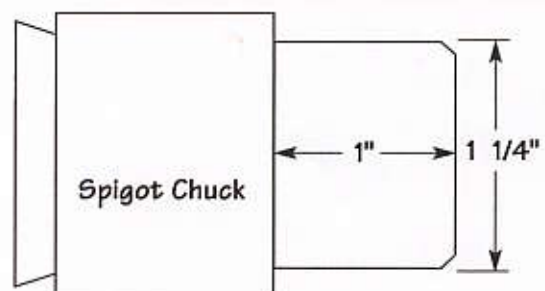
1. Turn a cylinder to 1 1/2" diameter.
2. Layout to 2" length.
3. Cut ends square.
4. Cut a 5° shoulder for the chuck.
 - Select end of cylinder which will be the bottom end.
5. Layout perch and entrance holes.
 - Decide on the front.
 - Mark a parallel line where the holes will be drilled.



6. Center punch the hole points.
7. Make a V-Block.
 - Center on the drill press and clamp securely.
8. Drill the 1/4" entrance hole a 1/4" or so deep.
9. Drill the 1/8" perch hole a 1/4" or so deep.
10. Place the body in a chuck.
11. Use the skew point to make a small entry hole so the drill bit will stay on center.
12. Drill a 1 1/4" diameter hole 1" deep.
 - The finished house body is 1 5/8" deep.
13. Turn the outside to shape as much as you can without hitting the chuck jaws.
14. Hollow out body to 1 3/8" deep.
 - Use a round nose tool and mark the depth on the tool with a marker or tape.
 - Leave a 1/8" shoulder where the drill stopped.



15. Turn a cylinder from scrap material.
 - Select something hard like oak or hard maple.
 - The cylinder should be about 3" long and 1 1/2" to 1 3/4" diameter.
 - Cut a shoulder on one end to fit into a chuck.
16. Place the cylinder in a chuck and center it.
 - Make a cone shaped indentation on the exposed end.
17. Place a cone center in the tailstock, move it up to the cylinder and insert the tip into the end of the cylinder.
18. Cut a spigot on the end of the cylinder.
 - The spigot will be 1" long and 1 1/4" diameter.
 - Check the fit by fitting a drilled bird house body over the spigot.
 - The fit must be snug, but not too tight or the body may crack if it is forced over the spigot.



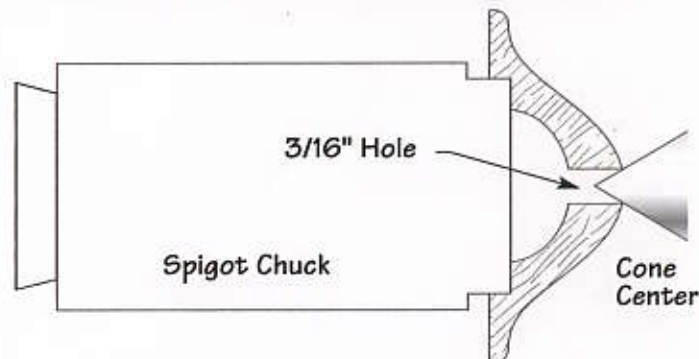
19. Slide the body onto the spigot, at least half way.

20. Rotate the assembly by hand to make sure it is running true.
 - If it isn't true, tap the body at the high point and bring it into true position.
21. Move the cone center up to point of contact with the body.
 - Advance the cone center until it penetrates the bottom of the body and spins when the lathe is turned on.
22. The finished body length is about 1 5/8", so about 1/8 of an inch will be turned off the body.
23. Turn the body diameter to a little more than 1 1/2".
 - Sanding will take the diameter to final size of 1 1/2".
24. Mark a line on the body at 1/8" above the perch hole.
25. Turn the lower part of the body to a pleasing curve.
 - Start at the line above the perch hole, rolling your 3/8" spindle gouge and cutting down toward the cone center.
 - Remove material until the body length is about 1 5/8".
26. When most of the curve has been cut, slide the cone center out of the way and complete the shaping of the bottom.
27. Insert a drill chuck with 1/4" bit into the tailstock and drill a 1/4" hole into the bottom of the body.
 - This hole will fit the bottom finial.
28. Sand the body.
 - Use 100, 150, 220, 320 grit paper with a 2" velcro disk holder.
29. Apply the finish.
 - I prefer lacquer, either by brush or spray can.

Turning the Roof

1. Cut out a piece of stock 3/4" thick x 2 3/8" dia.
2. Mount the disc, bottom side out in a self centering 4 jaw chuck.
3. True-up the disc and turn it to a finished diameter of 2 1/4".
4. Drill a hole 1/8" deep by 1 1/2" diameter.
5. Hollow out an area inside the drilled hole about 1/2" deep and 1" diameter.
 - This will remove some of the wood inside the disc, but will leave a flat area about 1/4" wide to glue the body to the finished roof.
6. Drill a 3/16" hole through the center of the disc.
7. Sand and finish the bottom side of the roof.
8. Turn a cylinder about 1 3/4" diameter and 2 1/2" long. This will be used to make a spigot chuck to hold the roof stock.
9. Turn a shoulder on the cylinder so it can be held in a chuck.

10. Turn a 1/4" by 1 1/2" diameter spigot on the end of the cylinder. Cut a cone center hole in the end of the spigot.
11. Jam fit the 1 1/2" hole in the bottom of the roof stock over the spigot chuck.
 - Drill a 3/16" hole in the center of the roof.
12. Move the cone center in the tailstock up to the assembly. Advance the cone into the 1/4" hole to hold the roof securely to the 1 1/2" spigot.
13. Shape the outside of the roof to final shape.



14. Sand through 320 and apply finish.

Turning the Finials

1. Turn a square down to a dowel. My chuck will fit 1/2" so that's what I use. However, don't make the dowel too thin or you get excess vibration when turning the finials and perch.
 - Be sure the dowel end is 1/4" diameter. Check with a wrench.
 - The length of the finial and its shape is up to you.
 - Sand and finish the finial, then part it off.
2. Turn the bottom finial with the 1/4" dowel end towards the headstock. Support that end with a cone revolving center.
3. Repeat step 2 for the top finial.
4. Turn the perch. The diameter of the part which goes in the hole is 1/8". The total length is about 3/4".
5. Repeat the steps for the top finial.
 - Insert a drill chuck in the tailstock end and drill the hole for the screw eye.
6. Assemble the bird house ornament.
 - Glue the bottom finial in place.
 - Glue the perch in place.
 - Glue the top finial in place.
 - Insert the screw eye in the top finial.
 - Glue the roof to the body.
 - Glue the bird on the perch.