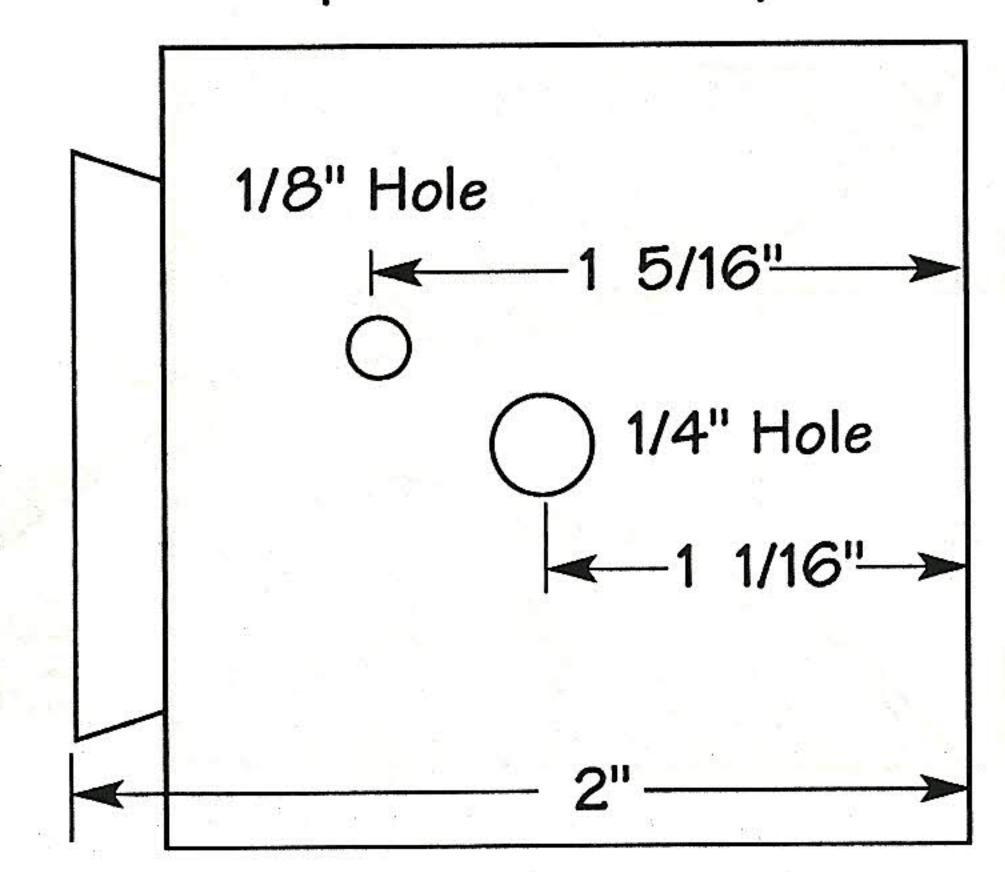
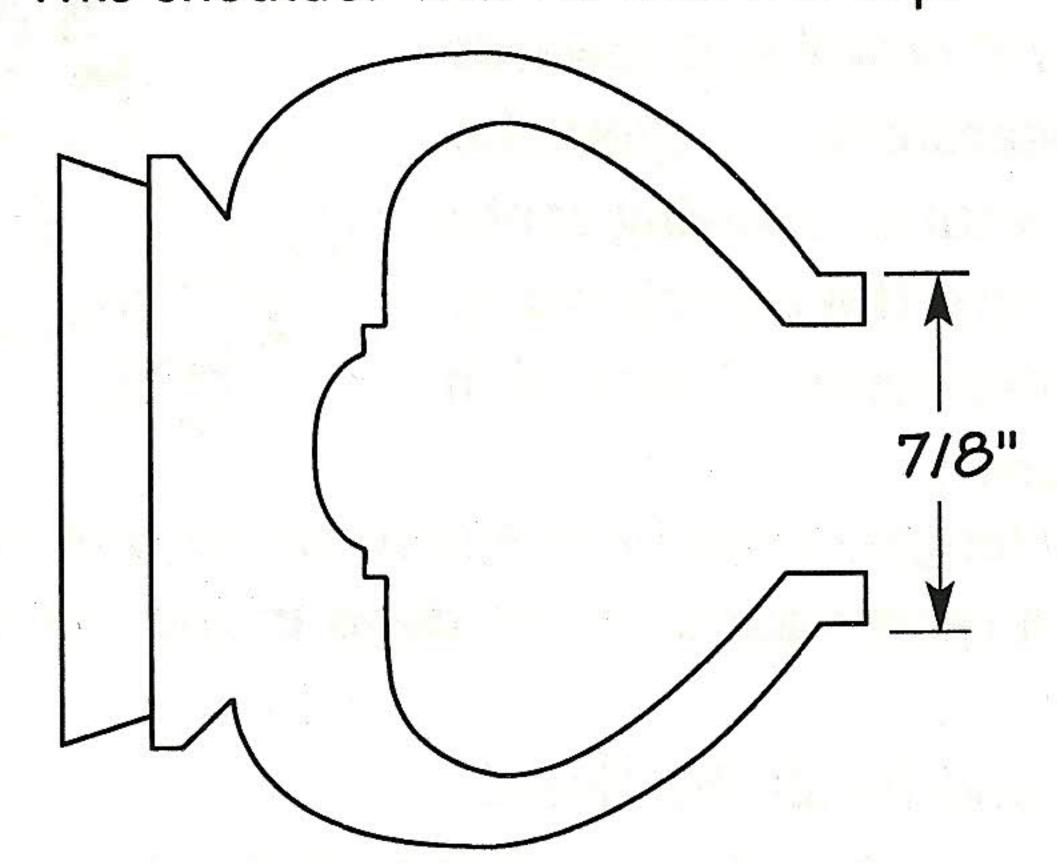
Turning the Body

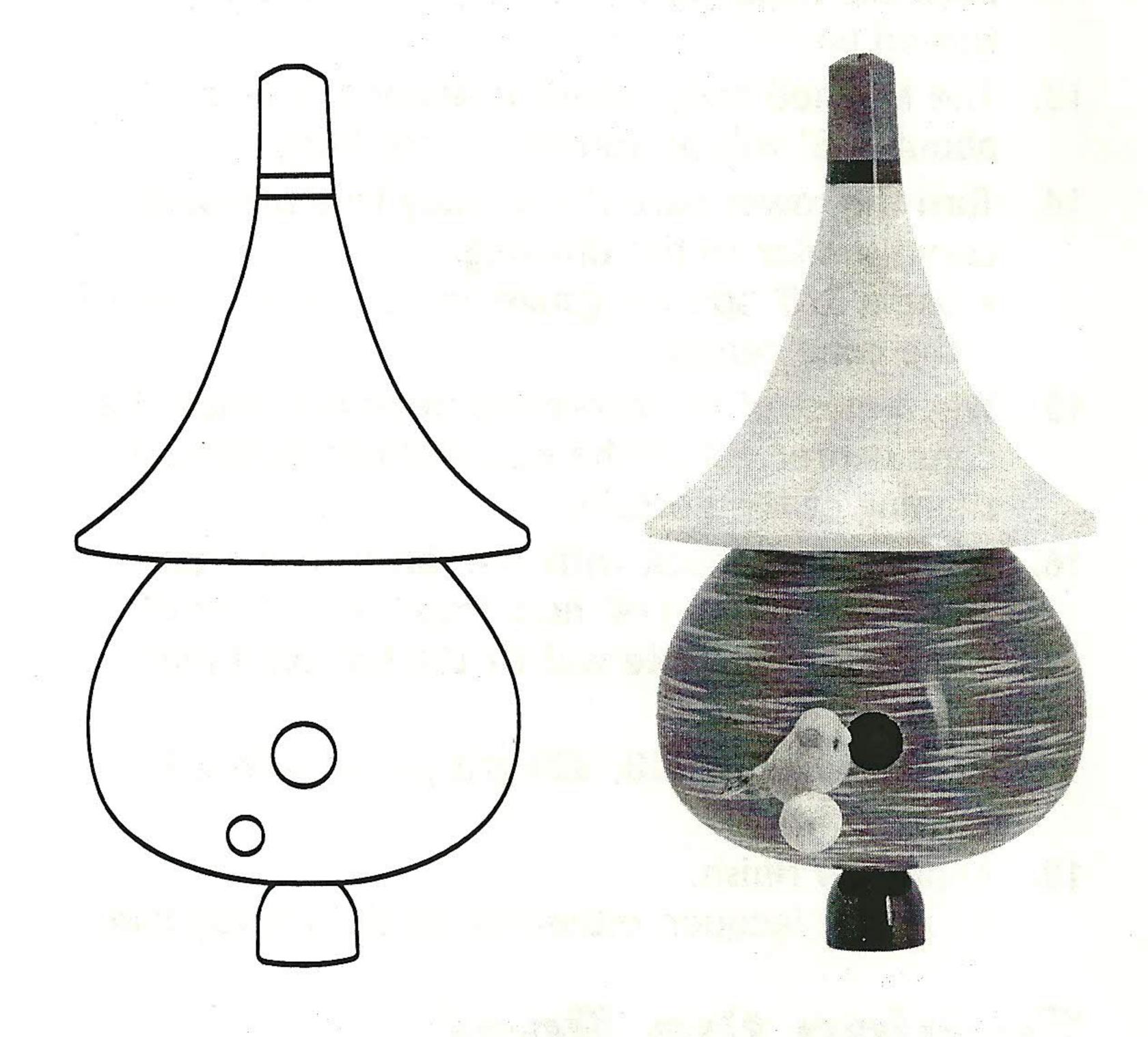
- 1. Turn a cylinder to 2" diameter and 2" long.
- 2. Square the ends with a parting tool and cut a 5° shoulder on the bottom end for holding the cylinder in a chuck.
- 3. Decide on the front of the body and mark the entrance hole.
 - Center punch the hole point.



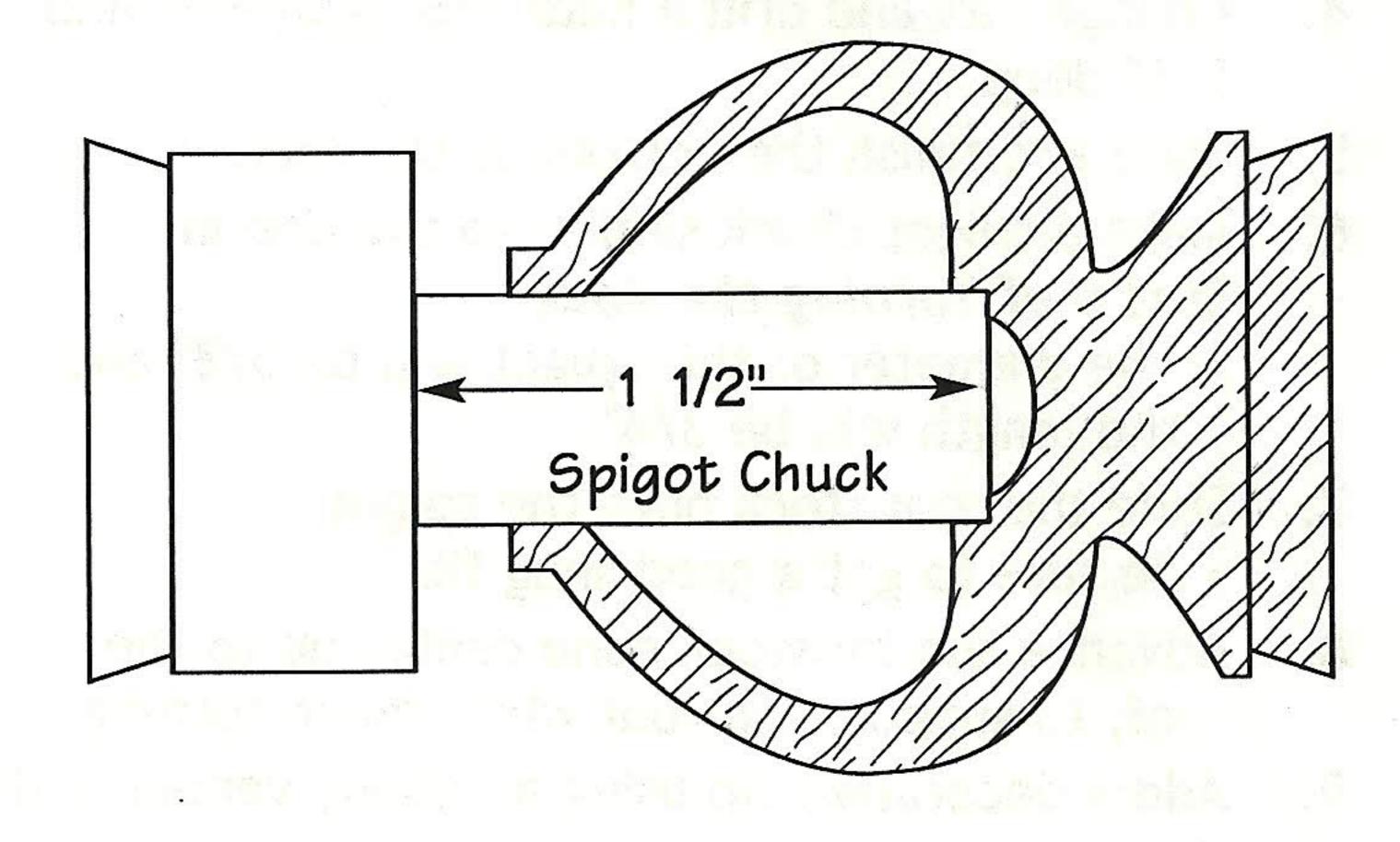
- 4. Drill the 1/4" entrance hole 1/4" or so deep.
 - Use a V-Block.
- 5. Place the body in a chuck.
 - Use the skew point to make a small entry hole so the drill bit will be on center.
- 6. Drill a 5/8" hole to a depth of 1 1/4".
 - Don't go too deep.
- 7. Turn the outside to shape, as much as you can without hitting the chuck jaws.
 - Leave a 1/8" shoulder at the outside of the opening, with a diameter of 7/8".
 - This shoulder will fit into the top.



- 8. Hollow out the body to remove wood and make the ornament feel lighter.
 - Leave a wall thickness of 1/8" or so.
 - Be sure to leave part of the drill hole in the bottom and don't turn away any of the drill hole at the opening. These areas are used to hold the body in place on a spigot chuck while the bottom of the body is completed.



- 9. Prepare the stock and turn a spigot chuck to the following dimensions. Check plan #1, step 14 through 17 for details.
 - The spigot will be 5/8" diameter by 1 1/2" long.
 - Check the diameter with a 5/8" wrench.



- 10. Slide the body onto the spigot. The fit should be snug but not too tight, or the body may crack if forced over the spigot.
 - If it is too loose, use masking tape or paper tissue to obtain the desired fit.
- 11. Rotate the assembly by hand to be sure it is running true.
 - If it is out a 1/16" or so, this shouldn't be a problem.
 - If it is out too much, make the necessary adjustments.

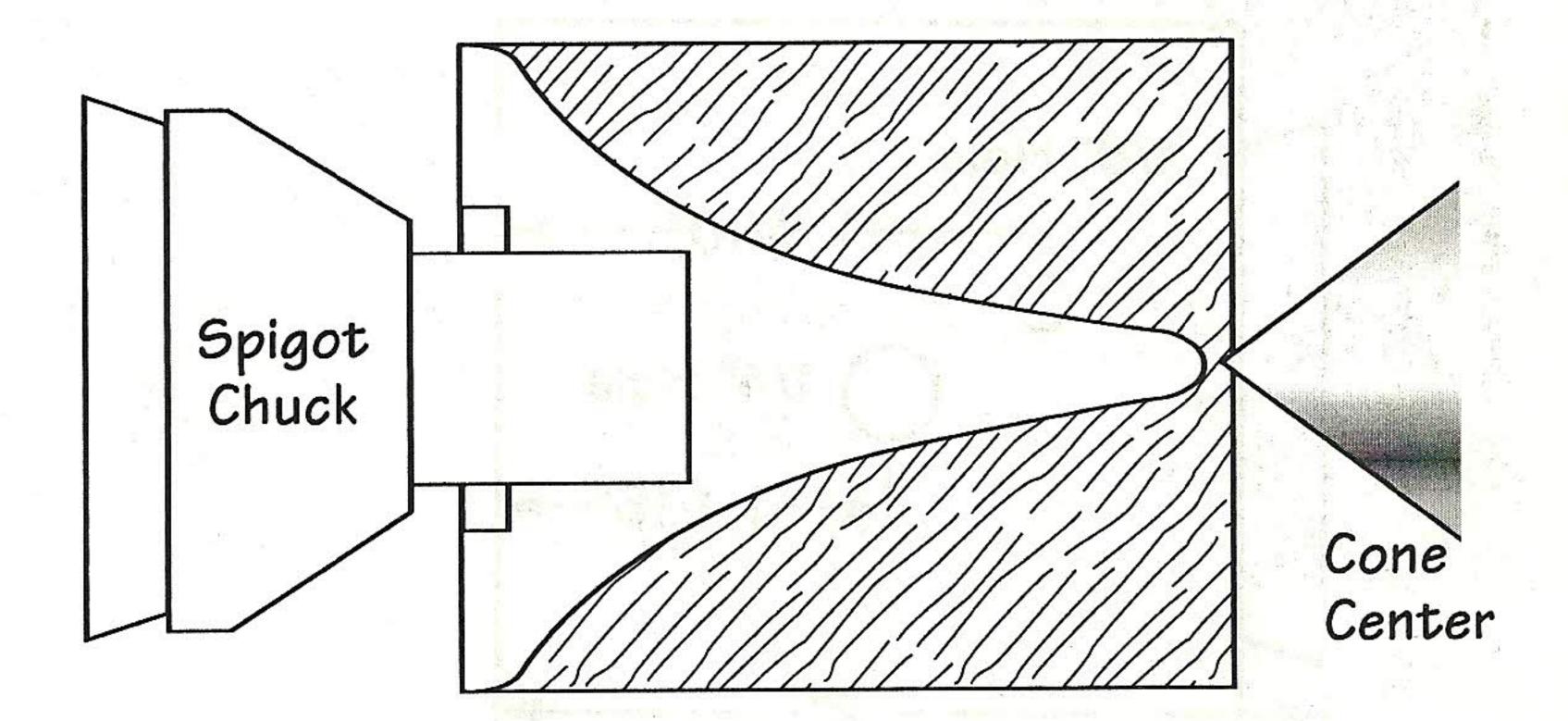
- 12. Move the cone center up to point of contact with the body, and advance it into the wood until the cone center spins when the lathe is turned on.
- 13. The finished body length is about 1 5/8" so about 3/8" will be turned off the body.
- 14. Turn the lower part of the body to a pleasing curve similar to the drawing.
 - Use a 3/8" spindle gouge and cut down toward the cone center.
- 15. When most of the curve has been cut, slide the cone center out of the way and complete the shaping of the bottom.
- 16. 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.
- 17. Sand the body.
 - Use 100, 150, 220, 320 grit paper with a 2" velcro holder.
- 18. Apply the finish.
 - I prefer lacquer, either by brush or spray can.

Turning the Roof

- 1. Cut out stock into a disc 1 7/8" round by 1 5/8" high.
 The grain must run up the roof for strength.
- 2. Mount the disc in a chuck and true it up at a diameter of 1 3/4".
- 3. Face the bottom off, then drill a hole 7/8" dia. and 1/8" deep. This fits the top of the body.
- 4. Change bits and drill a hole 5/8" diameter and 5/8" deep.
- 5. Sand and finish the bottom of the roof.
- 6. Make a spigot chuck similar to the one in Step 9 of *Turning the Body*.
 - The diameter of this spigot will be 5/8" and the length will be 3/4".
- 7. Slide the roof stock onto the spigot.
 - Be sure to get a good snug fit.
- 8. Advance the tailstock cone center up to the roof, to support the roof while rough turning.
- a small piece of pink ivory. This will make the top 2 1/2" high. Drill a 1/8" hole in the top using a drill chuck in the tailstock, then drill a 1/8" hole in a small piece of ebony that is about 1/2" square and 5/8" long. You also need a piece of 1/8" dowel about 5/8" long. Put yellow or white glue in the hole in the roof and insert the dowel. Put glue around the dowel and on the top area of the roof. Put on the ebony piece, then put glue on the dowel and inside the hole in the pink ivory piece. Slide the pink ivory

block onto the dowel and use the tailstock with the revolving center as a clamp to push the parts together. Wipe off any excess glue. The top onl needs to be left clamped for 15 minutes or so, then set aside for an hour or more before turning to final shape.

- 10. Sand through 320 and apply finish.
- 11. Drill in the hole in the top of the roof to fit the screw eye.
 - Do this while the roof is still on the spigot.



Turning the Finial

- 1. The finial on this birdhouse is only on the bottom, and is short and stubby.
 - It is simple and can be changed if you like.
 - Try to make the finial out of the same kind of wood as the roof.
- 2. 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.
- 3. Turn the bottom finial with the 1/4" dowel end towards the headstock. Support the finial with a revolving center.
 - Be sure the dowel end is 1/4" diameter. Check with a wrench.
- 3/8" 1/4" | 1/2" 1/4"
- The length of the finial and its shape is up to you.
- 4. Turn a recess about 3/16" deep in the end of the finial.
- 5. Sand and finish the finial.
- 6. Turn a perch 1/8" diameter and about 3/4" long. Sand and finish the perch.
- 7. Assemble the bird house ornament.
 - Glue the bottom finial in place.
 - Glue the perch in place.
 - Insert the screw eye in the roof.
 - Glue the roof to the body.
 - Glue the bird to the perch.