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American Association of Woodturners



Sent from Above

By Nick Cook

It just takes one good turn for these Christmas Angels to earn their wings.

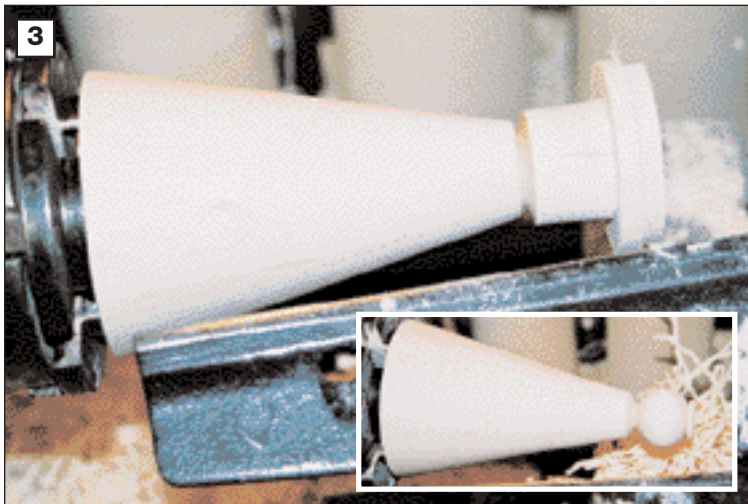
While serving on the board of a community arts organization, I agreed to create a turned wooden angel for the benefit "Angel Show." Even though that was a dozen years ago, I find joy in turning this project. Hope you'll find as much pleasure turning these angels as I have.



1
Rough out between centers with a 1 1/4" roughing gouge. With a 3/8" bedan tool, cut a 2" x 3/8" tenon (for fitting the blank into a scroll chuck) in one end.



2
Mount the body in a scroll chuck, using the tenon. Shape the body first, then hollow the interior with a 1/2" spindle gouge. Hollow the interior to reduce weight—just in case someone wants to use the angel as an ornament. To mount the body with a scroll chuck in the next step, turn a spigot on the inside of the body.



3
To turn the head, reverse the blank, then expand the scroll chuck into the spigot. This allows you to remove the tenon and shape the angel's head to about a 1" diameter (inset).

Material and tools

For this project, I use 3" squares of ash or hard maple, commonly sold as baseball bat blanks, in 36"-lengths. If you cannot find blanks like this locally, try www.hardwoodweb.com.

Of course you can use other material as well. Pine and poplar are both inexpensive and well-suited if you paint the finished product.

For tools, I recommend having these sharpened and ready: 1 1/4" roughing gouge, 3/8" bedan tool, 3/8" spindle gouge, 3/8" or 1/4" deep-fluted bowl gouge.

The project also requires a scroll chuck.

Turn the angel's body

Cut the squares into lengths of 4", 6", 8", and 10" or select lengths to suite your own needs. Turn the blanks between centers with a 1 1/4" roughing gouge and form a tenon approximately 2" x 3/8" at one end to fit a scroll chuck (Photo 1).

After mounting the blank in the scroll chuck, true up the opposite end and turn a cone to about 1 1/2" of the tenon. Next, hollow the blank to match the exterior shape, leaving the walls about 3/16" thick (Photo 2).

Several tools are suitable for hollowing. When I start in the center and work toward the final wall thickness, I've had good luck with a 3/8" spindle gouge. This step removes most of the weight, which allows the angel to be used as an ornament or tree topper.

For turning the top of the angel, leave a short spigot inside the cone to accept the expansion jaws of the scroll chuck.

Remove the blank from the chuck and remount at the opposite end. This will allow you to remove the tenon and shape the angel's head (Photo 3). For this step, I prefer a 3/8" or 1/2" spindle gouge ground to a fingernail shape; the long fingernail grind lets me produce fine details. I turn the head to about 1" diameter.

Sand the angel by stepping through 150-grit, 180-grit, and finally 220-grit sandpaper.

Finish decisions depend on wood species and personal taste. For ash, I apply a white

Continued

pickling stain followed by a coat of clear satin lacquer. Allow to dry.

An angel gets its wings

No angel can fly without wings. For turned wings, I cut $5/4" \times 4"$ ash into rounds approximately $3\frac{1}{2}"$ in diameter.

Draw a line through the center in line with the grain direction. Next, drill two holes in the wing disc. The first is $3/4"$ diameter and it is drilled $5/8"$ from the edge on the line through the center. The second hole is $1\frac{1}{8}"$ diameter and is drilled $3/4"$ from the opposite edge of the disc, also on the centerline. Refer to the illustration *opposite*. To reduce tearout, use Forstner bits at a drill press (Photo 4). Then bandsaw the wing discs (Photo 5).

I use a screw chuck with a spacer to mount the disc on the lathe (Photo 6). With a $1/4"$ or $3/8"$ bowl gouge, turn the first side just as you would shape the bottom of a bowl or shallow plate. Leave a small flat surface at the center to remount the piece on a glue block.

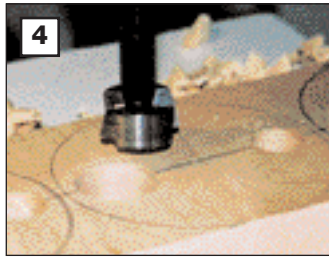
With medium CA glue, attach the wing blank to a $2" \times 1"$ waste block mounted in the scroll chuck. I use solid maple or poplar for my waste blocks.

After the CA sets, turn the back side of the wings into a dish-like shape, leaving the wall thickness just under $1/8"$ (Photo 7). Either a $3/8"$ or $1/4"$ deep-fluted bowl gouge is perfect for the task. To avoid the gouge catching in the wing holes, turn at a speed in the 1,800 range.

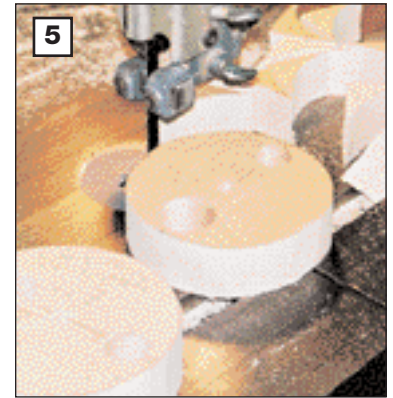
Use extra care sanding the holey wings, stepping through 150, 180 and 220 grits. After sanding is complete, apply finish to match the angel's body.

Before separating the dish from the waste block, turn a $1/4" \times 1/4"$ tenon on the bottom side (Photo 7 inset). The tenon will fit into a $1/4"$ -diameter hole drilled into the back of the angel body. For this drilling step, I prop the angel with a sand bag (Photo 8).

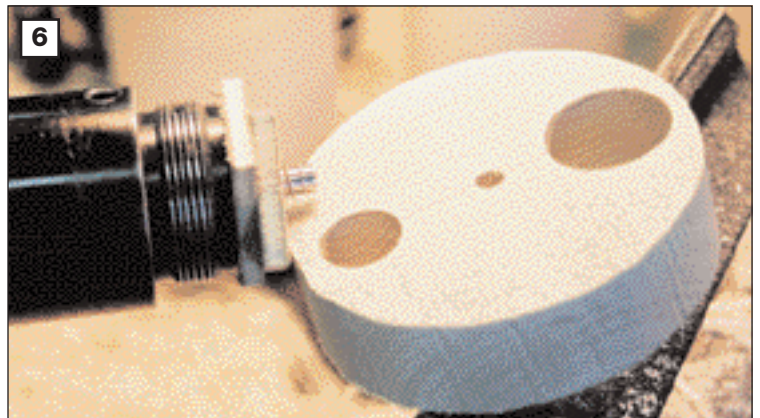
Before attaching the wings, use a bandsaw, scrollsaw, or coping saw to cut a space in the top and bottom holes to give the appearance of wings (Photo 9 and pattern *opposite*).



4 Before cutting circles for angel wings, mark a centerline on a $5/4" \times 4"$ wide maple or ash stock. Draw a $3\frac{1}{2}"$ circle and mark center for the $3/4"$ and $1\frac{1}{8}"$ holes. Then bore the holes with a Forstner bit as shown.



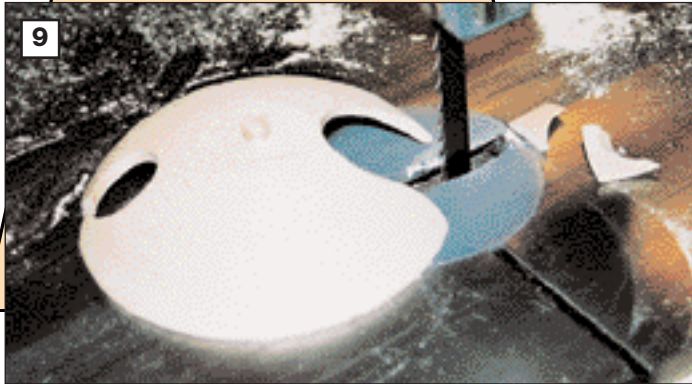
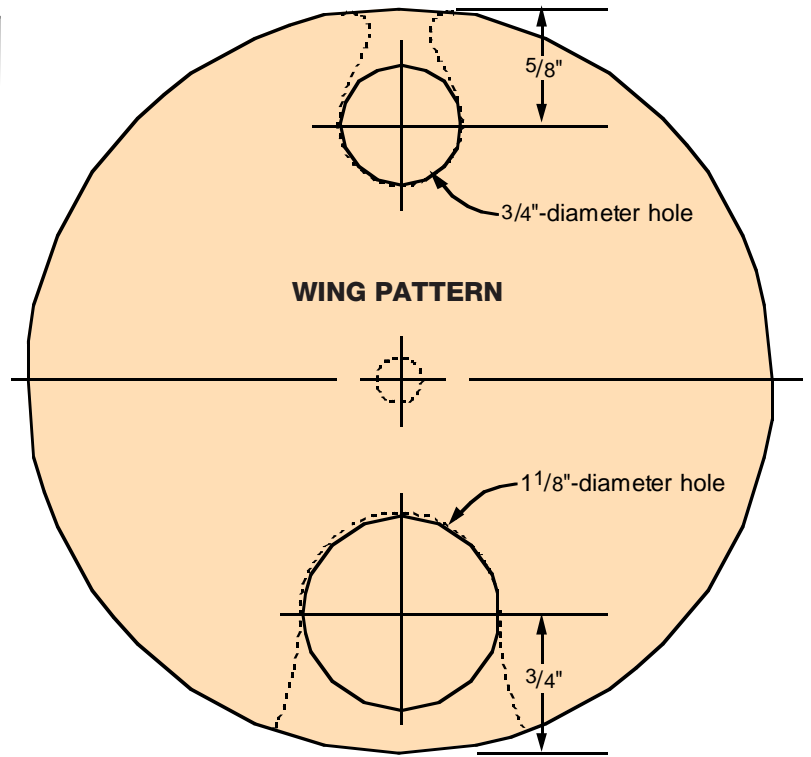
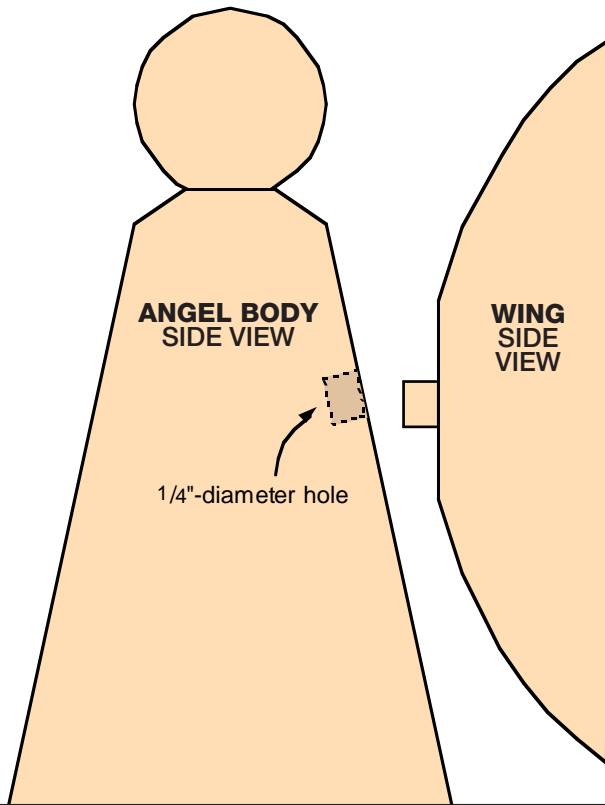
5 After boring the holes, bandsaw the $3\frac{1}{2}"$ -diameter wing discs.



6 To turn the outside of the angel wings, use two $1/4"$ plywood spacers to reduce the length of the screw penetration into the $5/4"$ stock.



7 Use a $3/8"$ bowl gouge to turn the interior of the bowl-shaped wings. When finished, turn a $1/4"$ tenon (inset) on the back side of the wings. The wings attach to the body with the tenon.



Using the pattern above as reference, cut the final wing shape with a bandsaw, scrollsaw or coping saw.



Prop and support the angel on a sandbag, then drill a 1/4" hole in the back of the body to fit the wing tenon. Use your hand to prevent the angel from rolling during the drilling procedure.

Wing options

Another wing style involves shaping safety wire or brass wire into a figure eight. Once twisted together, you can push the center of the wire into a small hole in the back of the angel.

Need a third option? With metal sheers, cut wings from brass, aluminum or even pewter. Pewter—the softest and easiest to work—is the most expensive of the three.

Don't forget the halo

I have never actually had my own halo, so I really don't know how to describe it. There are two styles of angel halos shown on page 44. The angel in the background has a halo turned as part of the head. The foreground angel has a 3/4"-diameter turned ring added to the head.

You also can bend a halo from safety wire or brass wire.

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