

## Turning a Bowl without Chucks

by Fred Holder

Chucks are wonderful time savers, but are not necessary to turn wooden shapes such as bowls and hollow forms. In fact, many woodturners mount all of these shapes on faceplates and turn the entire vessel on a single mounting then use some form of home-made jam chuck to turn the foot after the bowl is completely turned. Even though I have a number of chucks, I often use a jam chuck instead of a chuck. To basically use the stuff that comes with your lathe, here is the way to do it:

1. Mount the bowl blank between centers, but with the grain of the wood being perpendicular to the axis of rotation and the planned foot of the bowl toward the tailstock center. Balance it as well as possible and run the lathe at its minimum speed. Start small first (4" to 6" in diameter).
2. With the bowl blank mounted between centers, turn the outside of the bowl to shape and turn a foot for the bowl. Don't make the foot too small on your first few bowls, leave them around 1/3 of the diameter, a nice functional size. Leave the tailcenter mark in the foot; i.e., don't turn it away. You can turn the bottom of the foot so that it will have a flat area to fit into a jam fit chuck, but leave a little tenon in the center with the center point in it. You'll need that later. Sand and finish the outside of the bowl.
3. Remove the bowl from the lathe and mount the faceplate with a piece of scrap wood mounted on it. Turn the face of the wood nice and flat. Then turn a recess in the center that is deep enough to bottom the turned foot of the bowl and bring the bottom surface of the bowl shape to touch the top of the scrap piece, but still small enough that you cannot slip the foot into the recess. You will have to cut a deeper recess in the center to accept the center tenon you left on to retain the center in the foot. In case you get it a tiny bit too large (i.e., a slip fit) you can sometimes take up a part of the space with a paper towel.
4. When the recess is almost large enough to accept the bowl blank, place the foot against the recess and bring up the tailstock. Apply pressure with the tailstock. Then with a mallet, tap around the top of the bowl while increasing pressure with the tailstock. If you were close enough to

size, your foot should be able to be pressed into the recess until the top of the scrap piece touches the end of the bowl. Turn the bowl by hand to check for runout. Turn on the lathe, again at its slowest speed and check for runout by touching the finished outside surface of the bowl along the bottom side of the bowl. If it seems to be acceptable, it is unlikely that you'll get it perfect the first few times. Practice makes perfect.

5. Now, with the tailcenter still in the top of the bowl, start hollowing. Leave the tailstock in as long as possible and turn so that you have a little column 1/2" to 1" in diameter in the center of the bowl. If possible, turn the bowl to final depth with this column still in the center. Then break off the column, move the tailstock out of the way and sand and finish the bowl inside. At this point, your bowl is completely finished inside and outside, except for the foot.

6. You can generally remove the bowl from the waste block by applying pulling force on the bowl, but not enough to break it, while tapping the waste block with a mallet. Don't tap too hard or pull too hard. If it will not come loose, you can likely part away the waste block until the bowl comes free.

7. Now mount a piece of wood on the faceplate so that it will give you a disk that is larger than the diameter of your bowl. Turn a recess that your bowl lip will snugly fit into. It is best if this recess is a snug enough fit that you can press the bowl into it with a good friction fit. Now, bring up the tailstock to hold the bowl securely in this new jam-fit chuck. Turn the foot to final form leaving a little tenon in the center for the tailstock, sand and apply finish. If your mounting in the jam-fit chuck is secure enough, you can back off the tailstock and gently turn away the little tenon, sand and finish.

8. Remove the finished bowl from the jam-fit chuck by applying pulling pressure while tapping the jam-fit chuck. With luck, it will pop out without any damage.

Sign the bottom with a permanent ink pen like the Sharpie and pat yourself on the back. Then share your treasure with your spouse or a friend or someone else in the family.