

When the tool influences the design

by Bob Heltman

Let's be honest. There is the way things are supposed to be and the way things are, when you go to turn something. Especially if you are a part-time turner, or are generally busy, there is a tendency to not do everything just right when setting up to do a turning, or laziness prevails and instead of moving something you don't. For instance, taking the tailstock off is extra work and if not careful you find it with your elbow. In the process, maybe you don't take an extra thinning cut, etc. Swinging your leg over the lathe bed is also a pain, and that is to be avoided if you don't want to mess up your nice clothes that you shouldn't be turning in...you know how it goes.

In this case a desire for easily grabbing peanuts or M&Ms came along with laziness and a new tool. All this has allowed me to EASILY make a number of nice bowls with undercut rims. Two advantages come from this type of rim: 1) you can enjoy the grain of that wood or can inlay that rim and 2) [this is important] you can snag a quick handful of M&Ms without spilling any and avoid being caught as often by family members who watch your diet.

Last fall I was in touch with Mike Hunter (huntertoolsystems.com) who came out with a new type of turning tool that has a round, replaceable carbide cutter in either 3/8" or 1/2" diameter. The cutter stays sharp 25 to 100 times longer than regular turning tools; this is a real boon to the busy part-time turner who slips into his shop for a little relaxed woodturning versus having to take time to either wonder if his regular gouge is still sharp or to have to go and sharpen it. Mike also donated a tool to our CMW club and he deserves a "plug" for his kindness. More and more folks LIKE these tools!



Figure 1. Undercutting the rim with the 1/2" Hunter Carbide Tool

Figure 1 shows the 1/2" cutter in action. It is set into a 5/8" O.D. by 0.120 wall thickness DOM steel tube from Metals Express. The hole in the tube was just larger than the 3/8" diameter shaft on which the cutter was mounted, as received from Mike. Note that the cutter projects outward from the tool shank, which I also ground to a rounded bullet shape just down from the cutter. Superglue and EZ Poly MultiMender hold the cutter's shaft firmly in the tube.

Figure 2 shows the 3/8" diameter cutter in the same position. Either cutter sweeps nicely along the bottom of the bowl, and then up along the side to where the undercut is formed. By watching the opposite side of the bowl, you can easily see the cutting action of the tool and smoothly bring it to a stop before slicing into the rim.

Figure 3 shows a walnut bowl with undercut rim. The wide rim allowed cutting two grooves and filling the center with gold leafing. Unfortunately, this bowl looks like a chamber pot for midgets, but that's life.



Figure 2. Undercutting the rim with the 3/8" Hunter Carbide Tool.



Figure 3. A walnut bowl with an undercut rim and gold leaf on the rim.