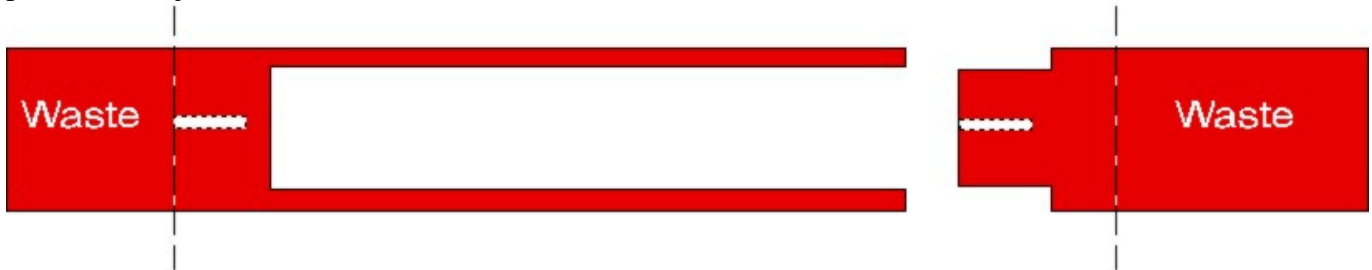


Firecracker

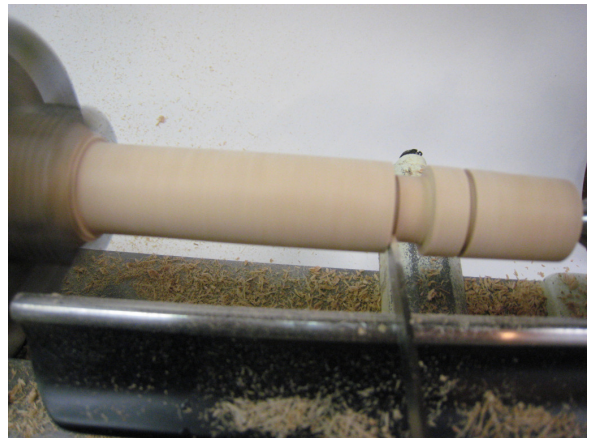
Project concept: It's Independence Day in the United States, and nothing goes with a 4th of July picnic more than fireworks and the American flag, and this project has both.

General dimensions: This project starts easy, with a piece of 1" stock or slightly larger, 8" long, placed in a 4 jaw chuck and turned to round.



Once the majority of the piece is round, flip the ends and round the remainder, until the entire work piece is a cylinder. Standard #2 chuck jaws may be too big to hold the piece, so smaller jaws may be required. Alternately, a jamb chuck could be made to hold the work. Bring up the tailstock to support the free end.

Roughing it out: Make a mark about 6" from the head stock end, and cut a notch 1/2" wide and slightly larger than 3/4" in diameter with a Bedan or parting tool. Part off the end which will become the "cap".



Now place a 3/4" Forstner bit into a Jacobs chuck, and bore into the piece remaining in the chuck, about 3" deep. Sand the outside smooth, perhaps to 220 or 300 grit. Mark the depth of the bore on the outside of the piece, about 3/4" to the left of the end of the bore, and then part it off. Remove the waste from the chuck.

Now mount the cap in the chuck and refine the notch such that it fits easily but firmly into the long cylinder. Sand smooth. Drill a 5/64" hole into the center of the tenon, about 3/8" deep. Drill a 7/64" hole about 3/8" deep into the end of the long cylinder. We now have a simple cylindrical box with two holes in it.



Decoration: Paint or dye the cylinder outside a bright red. Don't paint the inside, or the tenon may no longer fit into the cylinder. Once dry, glue a 3" long white pipe cleaner into the hole at the end of the cylinder as a firecracker fuse.

From your local variety store, buy a package of American flags on toothpicks. At my local source in 2014, a packet of ten was \$1.19. Nip off the tapered end of the toothpick and glue the flag into the hole in the tenon, wrap the flag around the toothpick, and reassemble. You now have a patriotic firecracker box which displays Old Glory when opened.



Final thoughts: I was curious if the tenon could be cut with a "plug cutter", thus making the sizing of the tenon simpler. I tried it, and it was almost perfect. I removed the edges left by the plug cutter with a Bedan, and with just a bit of sanding the tenon was perfect.

This project could be made larger, if a table centerpiece was desired. If you like the idea of using a plug cutter to make the tenon, larger plug cutters, up to 2", are available from CMT via Amazon.com (http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=cmt%20plug%20cutters.), and larger Forstner bits are readily available from standard woodworking sources.