**INTRODUCTION:** I gave an ornament demo for a local club earlier this month. There are several steps where you have to wait for glue to dry, and there’s no time for that in a demo, so I had prepared pre-glued replacements at each glue drying step. As a bad joke (look, if I could tell GOOD jokes perhaps I’d have worked as a comedian instead of an X-Ray Tech, made lots of money, and retired earlier. Or perhaps not.) I said the box I kept the pre-prepared stuff in is a “magic box”. I thought a pixie dust (glitter to you muggles) dispensing magic wand would be a nice touch. Years ago I had even made one, but it was inordinately fussy to make and use.

I keep an automatic pencil from falling off my drill press table with a ring magnet and I guess that triggered the AHA! moment of using a pair of ring magnets to keep a cap on the glitter reservoir. It worked very nicely. The ring magnets keep the cap on securely enough for vigorous use, but pulls off easily for refilling. And you can easily rotate the cap to open or close the glitter dispensing holes. Even if you don’t do demos and don’t like bad jokes, the magic wand will still make a great Father’s (or Mother’s) revenge present for your grandkids, even if it doesn’t match Harry Potter’s.

The wand has two pieces, a handle and a cap. The handle has a reservoir for glitter on the end. A ring magnet is mounted in a mortise at the end of the reservoir. The cap is drilled to fit over the reservoir, and has a mating ring magnet at the top. Glitter holes are drilled through the side of the cap and reservoir at the same time so they line up. But you can put the wand on “safety” by twisting the cap so that the holes don’t line up. All the work is done on lathe using a collet chuck, but I’ll suggest alternatives if you don’t have a collet chuck.

**PREP:** Begin by preparing two turning squares. They should be at least 1” square. Cut the cap blank 3-1/2” long, and the handle blank 10” long. Find the center and indent at each end, as in Fig. #1, for easy mounting between centers.

**STARTING THE CAP:** Mount the cap blank in a collet chuck, as in Fig. #3. Use your cone tailstock center to help with alignment. Should you have the misfortune to not have a collet chuck, a couple of alternative mounting methods are shown in Fig. #4. The right image in Fig. #4 shows using #1 jaws in a 4-jawed chuck. The left image shows using a homemade collet adaptor and the standard #2 jaws. You can find patterns and instructions for the collet adaptor at [www.DavidReedSmith.com/ColletAdaptor/ColletAdaptor.htm](http://www.DavidReedSmith.com/ColletAdaptor/ColletAdaptor.htm).

Remove the tailstock center and mount a drill chuck in your tailstock. Mount a 5/8” drill bit in the drill chuck and drill to a depth of 2-1/8”. The Forstner bit shown in Fig. #5 bores a relatively smooth hole, but does require a slow speed and frequent removal to clear the wood chips. Now mount a 1/2” drill bit in your drill chuck. To give a flat bottom to mount the ring magnet you really should use a Forstner bit. With the lathe running slowly, advance the drill bit until you hear it just start to cut. Stop the lathe and use tape to mark an addition depth of 1/8” on the drill bit as in Fig. #6. Turn the lathe back on and drill the 1/8” recess for the ring magnet.
Replace the drill chuck with your cone center and rough the cap to shape. Leave the main cylindrical section a little large so you can clean up after drilling the pixie dust holes later. Sand and finish the end of the cap as it will be inaccessible during later mountings of the cap. Fig. #7 shows the cap after roughing the cap and sanding the end.

As the depth of the recesses for the magnets is hard to measure exactly, install the magnets now so that the pixie dust holes will line up properly. Take two ring magnets and place them together. Mark the exposed face of each magnet with a marker as in the left image of Fig. #11. The magnets will be installed with the marked face glued into the recesses, insuring they’ll attract each other rather than repel. A T-handled hexagonal wrench makes a nice magnet installation tool, but any steel object with a diameter larger than the hole in the magnet will do. Put a piece of tape on your work surface and place a couple of drops of CA glue on the tape. Put the magnet on the installation tool with the marked face out as in the right image of Fig. #11. Holding on to the installation tool, dab the face of the magnet and roll the rim of the magnet in CA glue, then insert the magnet into the recess in the cap. Repeat for the magnet in the handle recess. You may wish to insure the magnet is fully seated by pushing down on it with a wood dowel.

Give the CA glue a few minutes to cure. Now use calipers to measure the distance between the end of the cap and the magnet face as in Fig. #12. Be sure to measure to the magnet face, not through the hole in the magnet. Bring the cone tailstock center up to support the handle. Use the calipers to transfer the depth measurement to the handle blank as in Fig. #13.

FINISHING THE CAP: To make sure that the pixie dust holes in the cap and handle line up properly drill them at the same time with the cap in place. First determine the level for the holes by holding the cap up against the reservoir of the handle as in Fig. #16. Make a mark on the cap about 1/4” below the base of the magnet. Put the cap in place and bring up tailstock center support. Using your indexing system and a drill guide, drill 4 equally spaced holes at the level of the mark with a 5/32” drill as in Fig. #17. If you don’t have a drill guide of some sort you can just mark the location of the holes, tape the handle and cap together with masking tape, and drill the holes using a V-block and your drill press. You could drill them by hand, but the holes will probably be less accurately located and you may have only one fully open position. Fig. #18 shows the cap after drilling the holes.
Using the plan from Diagram A, calipers, and a parting tool locate and size the features of the cap as in Fig. #19. Turn the bead and finial on the end of the cap then sand and polish the cap as in Fig. #20. Now tape the cap to the handle with blue masking tape and cut off the nub. Withdraw the tailstock so you can sand and polish the end of the nub as in Fig. #21.

**COMPLETING THE HANDLE:** Remove the completed cap and bring up the tailstock center for support. Mark the locations of the handle features using the plan from Diagram A as in Fig. #22. The photo shows an older non-reversible version of Diagram A. Use calipers and a parting tool to set the depth of the features as in Fig. #23.

Turn the features of the handgrip of the handle except the bead nearest the finial as in Fig. #24 using a skew or whatever tools you’re comfortable with. Then turn the neck of the handle as in Fig. #25. You can remove most of the wood with your spindle roughing gouge, then complete the asymmetric elongated cove with a detail spindle gouge or whatever tools you’re comfortable with. Then sand and polish the handle as in Fig. #26.

Change the collet in your collet chuck to 5/8” and reverse mount the handle as in Fig. #27 using the tailstock center to help mount the handle axially. If you don’t have a collet chuck, Fig. #28 shows two alternative mounting options. The left image in Fig. #28 shows using a homemade 5/8” collet adaptor, and the right image shows using #1 jaws in a 4-jawed chuck with a sheet metal/foam pad to protect the handle. To make the pad, measure the circumference of the handle reservoir. Cut a piece of soft sheet metal such as aluminum flashing about 2” long and the width of the reservoir circumference. Cut a piece of 2mm craft foam to match. Attach the foam to the sheet metal with 3M #77 spray adhesive and give it a few minutes to cure. Bend the pad around the handle (or a 5/8” drill rod or bolt) with the foam side in. Try the fit on the handle and trim if necessary as there should be a small gap. Any overlap would throw the handle off-center. The handle should be mounted in the #1 jaws with the pad gap in between jaws.
Figure #28: Alternative mounting methods.

Locate the handle finial features using the plan from Diagram A and set the diameters using calipers and a parting tool as in Fig. #29. Turn, sand and polish the bead and finial as in the left image of Fig. #30. Last remove the nub, then sand and polish the nub as in the right image of Fig. #30.

Figure #29: After setting the final diameters.

Figure #30: Completing the final.

END NOTES: A small funnel would be helpful in pouring glitter into the reservoir. I don’t have one so I just cupped my hand around the reservoir as in Fig. #31. The glitter will get all over the place anyway.

Figure #31: Loading glitter into the wand.

If you don’t want to get ring magnets you can use a short piece of steel tubing and a disc magnet as in Fig. #32. The tubing replaces the ring magnet in the handle, the disc magnet goes in the cap. You can buy carbon steel tube from an Industrial Supplier such as McMaster-Carr. You can also make your own by mounting a short piece of 1/2” steel rod in a collet chuck and drilling out the center with a 3/8” drill. Then cut to length.

Figure #32: Using steel tubing instead of a ring magnet.

There are endless variations you could make in the design of the wand. It could be adorned with wire inlay, or fancy beads could be substituted for the ends of the finials. If intended as a gag gift (perhaps with some red glitter to help a 20 something woman “solve” romantic problems?) a pamphlet or product tag explaining use would be helpful. Perhaps there will be one included with the web version of this article.

TOOLS AND MATERIALS: Tools needed are a Collet Chuck or alternative, Spindle Roughing Gouge, Parting Tool, Skew and/or Spindle Detail Gouge, Calipers, Cone Tailstock Center, Drill Chuck, 5/8” and 1/2” Forstner drill bits, 3/8” and 5/32” Drill Bits, Drill Guide or alternative.

Materials needed are 1”x1”x3-1/2” and 1”x1”x10” spindle blanks, progressively finer abrasives, finish of choice, CA Glue, Blue Masking Tape, Glitter, and Ring Magnets. You can get glitter in various colors and sizes at any store selling craft supplies such as WalMart or Micheals. You can buy ring magnets from www.AmazingMagnets.com or search for them on eBay.com. Insure the poles of the magnets are axially oriented.

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