

Turn a Scratch Awl



Materials needed:

- Scratch Awl Kit (141428)
- Lathe
- Live Center
- Turning Tools
- Drill Press or Hand Drill
- Maxi-Mandrel (141439 or 141440) (*Includes 7mm drill bit & bushings*)
- Pen Press, Quick-Grip Bar Clamp or Vise with wooden jaws
- Quick-set epoxy or thick cyanoacrylate (CA) glue

If Maxi-Mandrel is not used, you will also need:

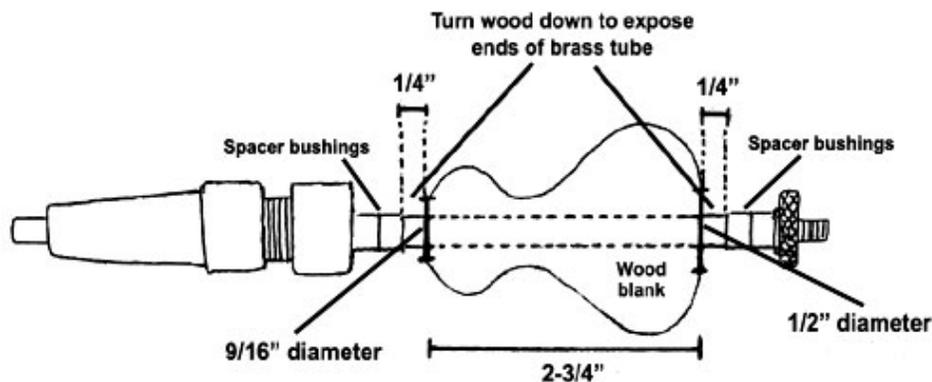
- Pen Mandrel
- 7mm Bushings (141551) (2 packs required)
- 7mm Drill Bit (141608)

Preparing the blank

Select a piece of wood at least 1-1/2" - 2" square. The grain should run lengthwise down the blank, or the wood may break. Cut the wood blank to 2-3/4", the length of the brass tube in the awl kit. Using the 7mm bit, drill a centered hole lengthwise through the blank.

Use quick-setting epoxy or thick CA (cyanoacrylate) glue to glue the tube into the wood blank. Using a pen press, a plastic squeeze-type bar clamp with the pads removed, or a vise with wooden jaws, press the tube into the blank. After the glue has dried thoroughly, use a pen mill or drill bit to remove any glue residue from the inside of the tube. **There must not be any glue in the brass tube or the shaft will not fit!** (In fact, it is a good idea to slide the shaft into the blank at this point to insure the inside of the tube is clean – it will be a close fit, but the shaft should slide freely.)

Turning the handle



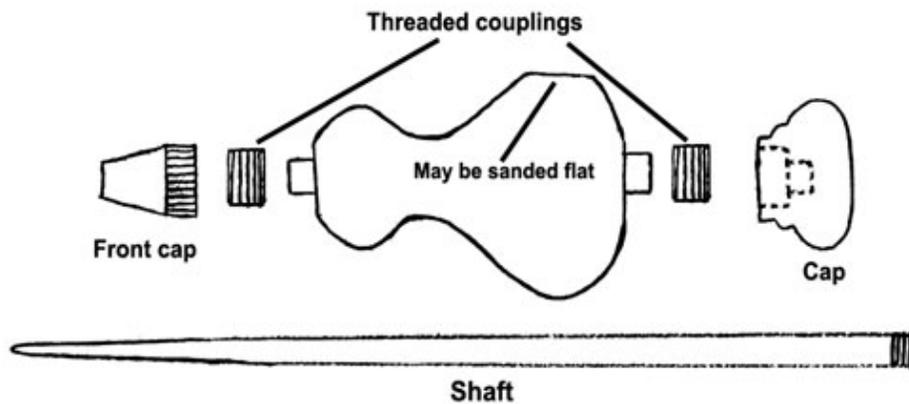
Mount the wood blank and spacer bushings on the mandrel. Tighten the knurled nut on the mandrel. Do not overtighten or the mandrel may be damaged or might not run true. Bring the tailstock up to the end of the mandrel, lock it down and then turn the point of the live center

into the dimple in the end of the mandrel. Advance the live center just enough to maintain contact with the mandrel; again, don't apply too much pressure.

Round the blank, then stop the lathe and mark the wood 1/4" from each end. Use a parting tool to turn the wood down to a 3/8" diameter. Now turn the handle to your desired design. Turn the narrow end to a 9/16" diameter and the wide end to 1/2", and be sure to keep the ends flat and square. If you like, you can sand a flat section on the handle to keep the awl from rolling on your workbench.

When you have completed the handle, sand the wood and apply the finish of your choice. Then use the parting tool to completely remove the remaining 1/4" of wood on each end of the blank until the brass tube is exposed.

Assembly



Press the threaded couplings onto the exposed sections of brass tube protruding from each end. Screw the large round cap onto the threaded end of the shaft. Then slide the shaft into the wide end of the handle and screw the cap onto the threaded coupling. Finally, slide the front cap over the shaft and screw it onto the threaded coupling on the front of the handle.