

Seamless Coin Silver Ring

By Betsy Lehndorff

Silver is amazingly tough. But as beginning silversmiths we're trained to be careful when handling it. However, this metal can take a surprising amount of pounding and still come out shiny and beautiful.

That's what this project will show you. In about an hour, you will be able to turn a pre-1964 silver quarter into a seamless ring. The secret is to anneal the metal often. Then, you'll use a ring file to carve the silver into its final shape and smooth the band with sandpaper.



U.S. quarters minted in 1964 or earlier are 90 percent silver, and you should be able to find them at local coin or pawn shops.

Some people worry that using silver coins this way is against the law, because they are defacing government property. However, these coins haven't been in circulation for decades, and eBay and other sources say you are safe from prosecution when using them for jewelry.

Materials List

- One pre-1964 quarter or a 1-inch diameter disk of 16-gauge sterling silver

Tool List

- Torch and soldering brick
- Tongs
- Container of water for quench
- Fine tipped permanent marking pen
- Jeweler's straight edge
- Circle template
- Center punch
- Flex-Shaft or Dremel
- Small drill bit
- Jeweler's saw with 2/0 blade
- BurLife or aw blade lubrication
- Bench pin
- Doming block and mandrels
- Safety glasses
- Maul or heavy mallet
- Steel ring mandrel
- Bench block
- Sturdy surface, such as a tree stump
- Ring file
- Sanding sticks or sandpaper from 220 to 1,200 grit
- Polishing buff & Zam or Fabuluster

Step 1 Anneal to soften

Place the quarter on a soldering surface and heat with a torch until it changes color – usually dark gray and pink. Allow to cool for a few seconds. Pick it up with tongs and quench in container of water.



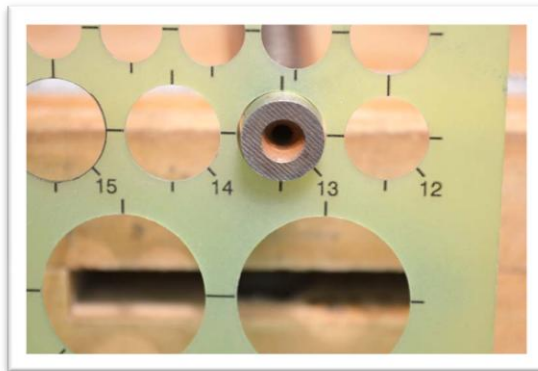
Step 2 Make the blank

Align a straight edge with the cross hairs of the circle template and draw a line with a fine-tip marker all the way across the coin east to west. Repeat north to south, using the top and bottom marks on the template.



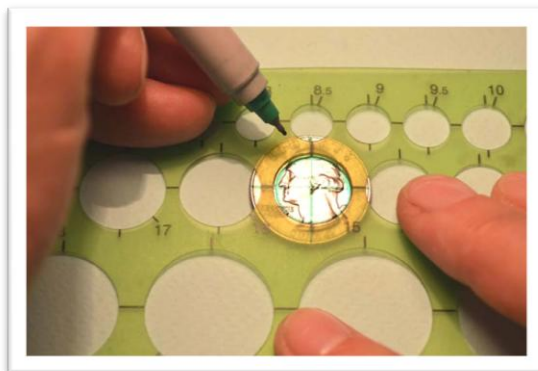
Step 3

Look for a smaller circle on the template that just fits over the tip of your mandrel. The larger the center hole, the bigger and lighter the ring will be.



Step 4

Line up the smaller circle over the cross hairs you drew on the quarter. Use the permanent marker to outline the inner circle.



Helpful Hint: invest in a good quality template for best accuracy.

Step 5

Place a center punch just inside the inner circle to start the drill hole. Drill through the quarter with a bit large enough to leave a hole you can slip your 2/0 jeweler's saw blade through.

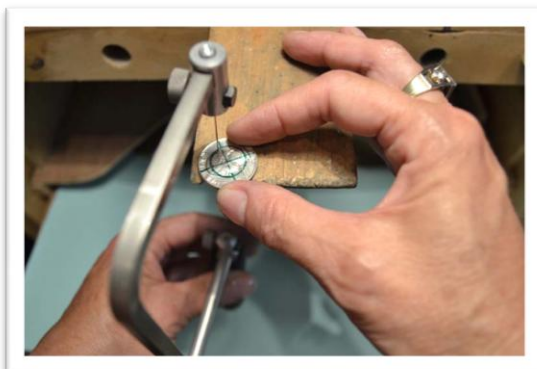


Step 6

Cut a small V-slot into your bench pin.

Thread the saw blade through the hole in the coin. Apply some lube to the blade and place the quarter on the bench pin. Saw out the center and clean up opening with the ring file.

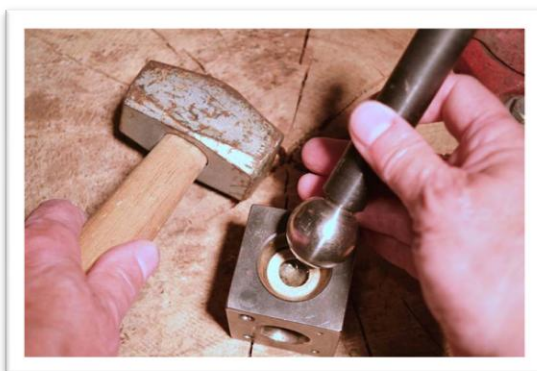
Anneal and quench. The blank should look like a large, heavy-duty washer.



Step 7

Forming the metal

Put on safety glasses. Place the quarter in the largest dap of your doming block and strike punch with a maul until surface is curved. Anneal and quench.



Step 8

Repeat, fitting the blank into smaller and smaller daps on your block.

Anneal again.



Step 9 Hammer the ring

Place the quarter on the ring mandrel, with the outer, reeded edge of the coin pointing toward the tip. Rest quarter on the bench block you have set on top of a sturdy hammering surface, such as a tree stump. Strike the quarter with maul to bend metal. Turn the mandrel and coin, and strike again, repeating this step to work the metal down.

Hint: the more you dome and hammer the ring, the larger the final size will be.



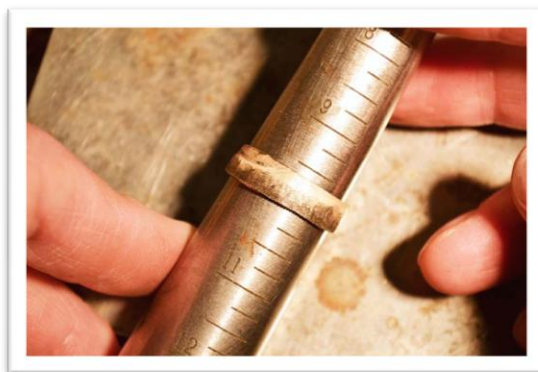
Step 10

From time to time, remove the ring from the mandrel and flip it over. Then continue hammering. If the ring gets stuck, tap on the edge to loosen it.

Please see video on Wubbers University

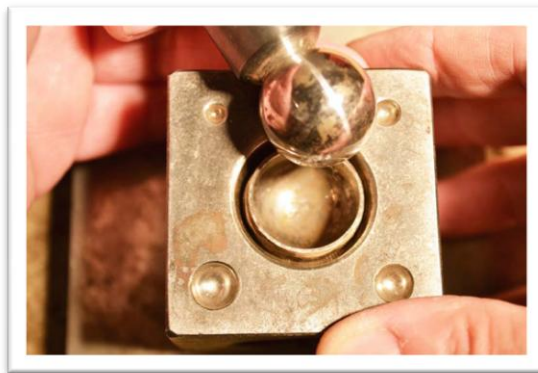
Step 11

At this point, the ring will look discolored and battered, but the sides of the ring should be almost perpendicular to the width of the band. Anneal and quench.



Step 12 True up the ring

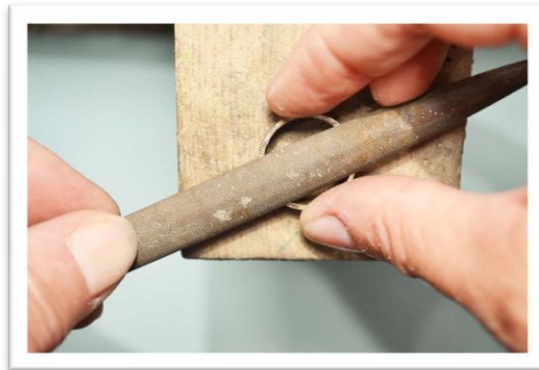
Use your dapping tool and punch to gently true up the ring a little. It doesn't have to be perfect.



Step 13

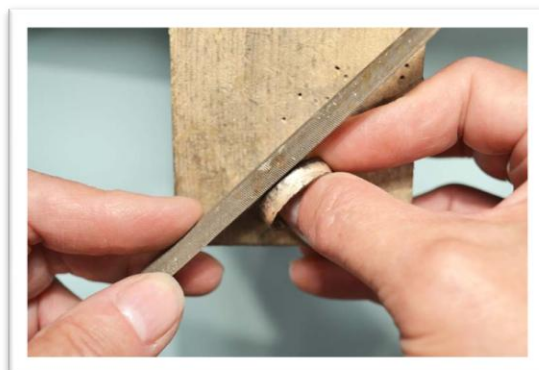
Carve the silver

Turn your bench pin so that the slanted side is facing up. Use your ring file to true up the edges of the ring.



Step 14

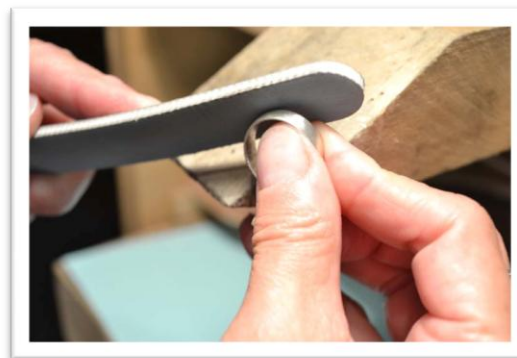
Use the ring file to round the top and bottom edges of the band, then work the file over the girth of the ring, evening up all sides. Flip the file over and use the rounded side to smooth the inside edges of the ring.



Step 15

When you are satisfied with the shape of the ring, use a 220-grit sanding stick to remove the file marks. Repeat with finer grades of sanding sticks or sandpaper, up to 1,200 grit. Scrub the ring with hot, soapy water and a tooth brush before moving on to the next finer grit.

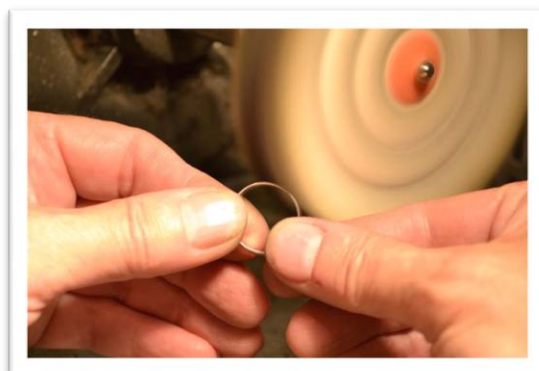
Use sandpaper on the inside of the ring, too, to smooth it out.



Step 16

Scrub ring again and buff with Zam or Fabuluster to a high shine. If using a bench polishing machine, hold the ring by the edges only to avoid injury.

Enjoy.



Review Questions

- 1) Sterling silver and coin silver are surprisingly tough materials, but as with all silver alloys, you need to learn proper techniques for working with this material. Which of the following are true?
 - a) Silver alloys can become brittle and break if you bend them too much.
 - b) Heating a silver alloy with a torch realigns the metal's molecules, making it more pliable.
 - c) You can bend and anneal silver numerous times.
 - d) You only need to flux the metal before annealing it if you are using the flux as a temperature indicator.
 - e) All of the above.

- 2) True or false: it is against the law if you alter a coin to change its value as currency.
 - a) False
 - b) True

- 3) What does this project teach you?
 - a) Silver can be practically turned inside out.
 - b) Annealing makes it easier to shape silver.
 - c) The finished ring can be sturdy enough to wear for a long time.
 - d) Despite being struck with an iron maul, the silver can be smoothed out and polished to a high shine.
 - e) None of the above.
 - f) All of the above.

- 4) What kind of quarters can I use?
 - a) Quarters from the 1940s
 - b) Canadian quarters
 - c) Quarters minted in 1972

- 5) How much silver does a 1972 quarter contain?
 - a) 90 percent silver
 - b) None
 - c) 50 percent silver
 - d) 10 percent silver