Cage Earrings

By Jurgen J. Maerz

These fun and stylish earrings are the ideal project for the advanced jewelry-making student. They are relatively easy to make and contain many techniques such as soldering, measuring, polishing etc.

When completed, the stones will be floating in the cage.

Materials List

- 600 mm (2 feet) of 22 gauge polished sterling silver wire
- 100 mm (4 inches) of 2.5mm x 1mm sterling silver flat wire
- 2 each 15 mm stone beads (Blue Topaz undrilled)
- 1 set of sterling silver shepherds hook earring backs
- Silver solder, medium and easy

Tool List

- Jeweler's saw
- 3/0 blades
- Soldering setup
- Assorted designer punches or
- Texture hammers
- Chasing hammer
- Rawhide mallet
- Safety glasses
- Liver of sulfur
- WUBBERS Classic Round Nose Pliers
- 20 mm dapping punch
- Dividers

Measuring and Material Preparation

Step 1. Using a micrometer, measure the stones. These stones were found to be 14.3 mm in diameter.

Multiply the diameter times 3.14 to find the circumference of each stone.

In this example, the measurement is about 45 mm. By making the rim wire 50 mm long, there will be a large enough rim to accommodate the stones freely.

Step 2. Cut two 50 mm long pieces of the flat wire and set aside.

Eight pieces of 70 mm polished sterling silver wire are cut and set aside.

Using the remainder of the round wire to form two 6mm jump rings are made and set aside.

Decorating the Earring Rim

Step 3. Use assorted designer punches or texture hammers on the 50mm flat wire sections to decorate them. Specific designs can made using the chasing hammer and punches.

The finished strips.

Other options include a hammered finish, a plain polished strip, a twisted rope strip, or a round or half-round wire strip.

Assembly

Step 4. Laying the round wire on the decorated strip, the wires can now be soldered in place.

It is important to maintain the proper distance between each wire.

The distance needed can be determined using a divider and making a small mark.

The distance on either end combined makes up for the fourth distance.

Step 5. The wires are soldered using medium solder.

Quench, pickle, and rinse.

Step 6. Using the WUBBERS Classic Round Nose Pliers, the rim with the attached wires is bent into a circle and the two ends are soldered together, using medium silver solder.

Take care not to melt or move the attached wires.

Step 7. The earring frames are now placed on a mandrel and can be rounded using a mallet.

By using the sizing numbers on the mandrel it is easy to make them both the same size.

Step 8. Using the dapping punch, a nice curvy earring bottom is created and soldered together at the intersection using medium solder.

Step 9. The next step is a bit tricky and extreme caution is recommended. The stone is inserted and then the upper wires are cut to the exact same length and bent so that they come together forming the tip of a pyramid.

BENCH TRICK: Using a wet tissue to protect the stone from the heat, the four wires are soldered together using easy silver solder.

The bottom of the jump ring is filed flat and a small amount of easy solder is melted on that surface.

With the wet paper in place, the jump ring is soldered to the top of the pyramid.

Step 10. After the paper is removed, the earring is gently pickled to remove any flux or other debris.

At this time, attach the earring backs using the WUBBERS Classic Round Nose Pliers.

Using liver of sulfur, the decorated rim is oxidized to bring out the designs.

BENCH TRICK: To heat the designer rim, heat a pair of tweezers with the torch and then hold the rim with the tweezers. This will transfer enough heat for oxidizing without a chance of damaging the stone.

TIP: It is better not to use opals, turquoise, or pearls as stones for this project. They don't do well in the pickle.

The earrings are now ready for delivery.

Review Questions

1) How to determine the length of the decorator rim…
    a) Stone diameter times π (3.14) plus 5 mm
    b) Radius times π (3.14)
    c) With a micrometer

2) What solder is used to solder the decorator rim?
    a) easy
    b) medium
    c) hard

3) How is the stone protected during soldering
    a) Aiming the torch away from the stone
    b) Using wet tissue
    c) Easy solder

4) How to make sure both decorator rims are the same size
    a) Measuring using micrometer
    b) Using the divider
    c) Using the numbers on the mandrel

5) How are the stones held in these earrings
    a) Free floating in the cage
    b) Bezel set in the cage
    c) On a post in the cage

