

Wire Work Basics

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Bent wire jewelry has been part of human adornment since the earliest metalwork – at least 4000 years ago. With few tools, and some simple techniques, a few basic patterns and their variations can be combined in a limitless variety.

Wire Basics

- Wire is measured in Gauge from “0” gauge (.325in. or 8.5mm) to “30” gauge (.010in. or .254 mm). A Brown and Sharpe Gauge is used to measure metal. It has the gauge on one side and thousandths of an inch on the other side.
- Drawplates may be used to decrease the gauge or change the shape of the wire. To draw wire through a drawplate, sharpen one end, use beeswax as a lubricant, and pull the wire through the hole using drawtongs. A continuous pull is best. The metal will work harden as it is being pulled through the drawplate and will need to be annealed occasionally.
- Keep metal separate and well labeled. Fine silver, solder filled sterling, sterling silver and solder all look alike. Wire is particularly difficult to tell one from another.
- Most metal is annealed (full soft) when purchased. It can be hardened prior to working if the amount of work to be done is not sufficient to harden it.
- **Consistency** is probably the most important thing for creating professional looking jewelry. Consistency will be improved with the following techniques:
 1. Take notes – keep a log of materials and procedure used to create each piece. Measure gauge and length of wire. Draw diagrams of the wire in each step of the process. Make note of the tools used, how they were used and any special details.
 2. Use a scribe or fine pointed marker to mark pliers, scribes, tweezers, or other tools so the wire will be held at the same place each and every time and the bends will all be consistent.
 3. Practice with brass or copper wire until the piece comes out consistently as desired. Fine silver and copper work similarly, sterling silver and red brass work similarly, and half-hard yellow brass works similarly to 14K yellow gold.
 4. When making multiples of the same unit to create a piece, complete each operation on all of the pieces and then move on to the next operation.
 5. Use wire that is free of kinks or bends. Gentle waves can be straightened, but sharp kinks cannot.

