

## **WIRE WORK**

### **A beginner's guide**

Cindy Goldrick, TBS April Techniques Night 2010

#### **Wire Hardness**

Wire comes in three different forms of hardness: dead soft, half-hard, and full-hard. Dead Soft wire is very soft and can be bent with your hands. It is often used for wire-sculpted jewelry.

Half-Hard is harder than dead soft wire because it has been pulled through a draw plate. Full-Hard wire is harder than half-hard wire because it has been pulled through a draw plate more times than half-hard wire.

Wire comes in a variety of shapes such as round, square, and half-round, triangle and twisted. Half-round is often used to wrap around square wire when attaching the wires together and I use it to make ring shanks.

The size or thickness of wire is measured in gauge: the higher the number gauge, the thinner the wire.

28 gauge is good for wire crochet and spool knitting.

26 and 24 gauge are good for beads that have small holes in them such as pearls. Half-hard is good for stringing but dead soft is best for crochet, knit and intricate twisting. In an ounce of 26 gauge wire there is about 76 feet and in 24 gauge there is about 48 feet of wire.

22 gauge is versatile since it is pretty thick but most beads (like crystals and stone beads) can fit on it. Dead soft is good for making bead and wire chains and also for a variety of jewelry findings like ear wires, head pins and clasps if the piece isn't too heavy. I use it for coiling on the gizmo. One ounce of 22 gauge has about 31 feet of wire.

20 gauge is good for making clasps because it's still pretty easy to work with but is strong as well. You can get about 19 feet of 20 gauge wire when you buy it by the ounce.

18 and 16 gauge wire is great for making strong links and coils in bracelets and can stand up to planishing and flattening. 16 gauge is also great for bracelet bases. 16 gauge is much harder to bend and work with. Jump rings in these gauges are used in chain maille.

Copper wire is pliable and easy to use. If it's not coated, it tarnishes easily and quickly. You might prefer the oxidation of the wire as it darkens it gets matte looking. I find brass wire has a mind of its own and is much harder to work with, especially when you get into the lower gauges under 20. Silver wire is great for making beautiful, lasting pieces of jewelry but silver plated copper wire, which is coated and tends not to tarnish, gives you

similar results for a lot less money. Copper wire is often coated and comes in a variety of colours.

You can purchase Parawire in Canada from Unicorn Beads at [www.unicorne.ca](http://www.unicorne.ca). It's good quality wire and is easy to work with. It comes in a variety of colours and types. Artistic Wire also comes in most gauges and colours. There's lots of cheap wire on the market but I find 26 and 28 gauges in these wires breaks a lot.

The more you work with wire the harder it gets – this is called work hardening. Hammering or planishing the wire also work hardens it and it becomes more brittle as it hardens.

### **TOOLS FOR WIRE WORKING**

You need some decent pliers that feel comfortable in your hands. Prices vary. Cheaper tools don't often have jaws that line-up properly and can affect your results. For wire working your pliers need to be smooth jawed. [Lacytools.ca](http://Lacytools.ca) is a good reference and place to buy your tools.

You should have the following pliers:

- Round nose
- Flat nose
- Chainnose (tapered)
- Nylon jawed
- Curved or Bentnose

As well, you should have:

- Flush cutters

Other tools to consider investing in:

- Stepped or coiling pliers for wrapped loops and rings
- Bailmaker – makes rings or bails – keeps your coils and links uniform
- Bench block
- Anvil
- Mandrel – metal is best

Hammers

- A Rawhide Mallet – for pounding and shaping
- A Chasing Hammer – for planishing (hardening, flattening, smoothing wire) and the round end is for texturing

Other tools I find useful/fun to have and use:

- Viking knit tool
- Spool knitter
- Wig jig
- Bead reamer/dremel
- Small files for smoothing burrs on cut ends of wire

Burnisher  
Wire punches  
Coiling gizmo  
Wire twister

### **How to make a Simple Loop**

- Start by using chain-nosed (or flat-nosed) pliers to bend the wire or head pin at a 90 degree angle, sort of like an upside down L.
- Next with round-nosed pliers, grasp the bend area of the pin or wire, and using either your fingers (if the wire is soft enough) or a pair of chain-nosed pliers, wrap the wire or pin around the nose of the pliers.
- Finish the loop by using wire cutters to trim off excess head pin or wire.

### **How to make a Wrapped Loop – tidy or messy**

- Cut a piece of wire and straighten it if necessary. Bend it about 3 inches from the end with your chain nose pliers until it is at a ninety degree angle.
- With your round nose pliers, grab the wire about 1/8 of an inch from the bend and roll the pliers back toward the straight part of the wire (we'll call this the stem) to form a loop.
- Stop when the pliers are perpendicular to the wire stem. Take the tail of the wire in your fingers and pull it around the pliers to finish the loop.
- Hold the loop with your chain nose pliers with the tail end straight up. Wrap tightly around the wire stem by pulling the wire towards you about 3 times. Make the wire lie flat and side by side for a neat loop, or just wrap haphazardly for a messy wrapped loop. Cut the wire and flatten out any remaining piece of the tail.
- Put a bead on the wire. Grab the wire at the top of the bead with the tip of your chain nose pliers. Bend the wire to a 90 degree angle over the top of the pliers.
- Repeat steps. This time wrap the wire until it reaches the top of the bead. Cut the wire and flatten the excess.
- To make linked jewelry you will have to connect the loops before you close them. To do this, after you have one complete loop, continue with the instructions on a second loop through step 3. At that point you will put the tail of the wire on the second loop through one of the finished ends of the first completed link. Finish wrapping the wire by following steps 4 through 6 and continue until you have reached the desired length.

### **Wire Wrapping Stones**

- Form a wire coil – use the tip of the roundnose pliers to start a coil. Hold the small loop in the back jaw of the flat nose pliers and use your finger to push the loop against itself, constantly repositioning the coil as needed until it is the size you need.
- Bend the wire 90 degrees.
- Add your stone.
- Form a wrapped loop then wire wrap down and across one side of the stone. Wrap around the bottom of the bead above the loop and bring it up and around the bead again and wrap around the top. Repeat if you like to create a free-form caged

effect. After last wrap use flush cutters to trim wire. Use chainnose pliers to twist the wire to tighten it and create bends. While you're wrapping the stone you can also thread smaller beads as well to add texture. Use your creativity.

### **Coil and Double coil are not much trouble**

Make a coil as described above then make one at the opposite end of the wire in the other direction. Place your roundnose pliers in the centre of the coil and gently push down and out. You will find the wire creates a cup. Do the same on the opposite side.

Gently start to push the two sides of the cup together but leave a space to insert your bead.

Create a loop of your choice at one end of a piece of wire. Thread that wire through the centre of the wire cup, add your bead, thread it through the other side of the bead cap and gently press the sides together. Create a loop at the other end of the bead. If there is slack you can twist the wire with your chainnose pliers and tighten up the fit.

### **Wirewrap a bead**

Create a wrapped loop, add a bead. Create a loop at the other end of the bead, wrap it a couple of times but don't cut the wire.

Bring the wire back up around the bead, turning as you go. Wrap the wire around the top wrapped loop a couple of times to secure it. You can go back down and around the bottom again if you want two wraps. Trim the wire when you are finished.

Tighten the wraps with your chainnose pliers if they are a little loose.