# *Haywire Bangles*

Once you've mastered these circular bangles, expand your design vocabulary with other shapes. Go haywire with ovals, squares, or triangles!

## what you will need

- **20- or 18-gauge half-hard sterling silver wire, 4 to 5 feet (1.2 to 1.5 m) for each bangle***
- **24-gauge gold-filled wire for contrast wraps and embellishments**
- **Basic Tool Kit**
- **Strip of paper, 1 inch (2.5 cm) wide by 11 inches (27.9 cm) long**
- **Tape**
- **Liver of sulfur**

*Any metal will work well for this project, depending on the look you want. Sterling silver, steel, gold-filled, copper, and brass wire are all good choices, but if you have sensitive skin, stick with sterling silver or gold-filled wire.*

## sizing a bangle

1 Curl the paper strip into a circle that slides snugly over your hand. Tape it closed at that point. You'll use this paper circle as a general size template while forming the wire into a bangle.

## forming the bangle

1 Use wire cutters to flush trim the tips of the sterling silver wire. Hold the wire 2 to 3 inches (5.1 to 7.6 cm) from one end. With your other hand, bend the long end of the wire to form a rough circle the same circumference as the paper template. When it's about the right size (err on the larger side, not on the smaller), use one hand to hold the wire circle together while using the other hand to twist the short tail around the circle.

Let go of the long, loose end. Hold the bangle's shape, and tighten the tail wrap by cutting it close and tightening it with chain-nose pliers. Be sure to position the cut end so it faces away from the wrist. This is the bangle frame.

2 Hold the frame in one hand while passing the loose wire end through the center opening and around the frame with your other hand. Repeat all around the frame. The wrapping can be fairly loose to create free-form gaps, but pull the wire tighter every 2 to 3 inches (5.1 to 7.6 cm) to add some structure. For a more free-form look, position the tight wraps in different spots, and force the looser wraps to pop up in different points on the inside and outside of the bangle frame.

3 Continue wrapping until you are left with about 3 inches (7.6 cm) of loose wire. End the wire by wrapping it around just one of the wires in the bangle. Use chain-nose pliers to get a tight double wrap and use wire cutters to flush cut the wire close to the bangle. Use chain-nose pliers to tuck the tail into the wire wrapping.

4 Sand or file any exposed wire ends so they are smooth to the touch (see page 13).

## finishing up

1 You can leave the bangle as is, or apply any finishes as desired (see pages 27 and 28).

2 Embellish your bangle with 24-gauge wire wraps (work with a contrasting color or finish). Try a variety of techniques: make tight or open coils, wrap around the full bangle width at various points, or coil around individual wires.

# The Basics

## tools

The only tools that are absolutely necessary for making jewelry with wire are chain-nose pliers, round-nose pliers, and a pair of wire cutters. I worked for years with only these three basic tools. Over time, though, I've learned more techniques and expanded my basic repertoire of skills to include some other fun and simple designs, as well as more refined finishing techniques.

For the purposes of the projects in this book, I've described two tool kits: A Basic Tool Kit and a Beyond-the-Basics Tool Kit so you'll know what to have on hand. To try out most of the techniques explained in the projects, pick up the tools in the first kit. Purchase the tools in the Beyond-the-Basics Kit if you want to make each and every one of the projects. And, if you find yourself fully committed to making wire jewelry, give in and get the tools for a Fully Committed Tool Junkie, too.

What you won't find in these lists are the things you're likely have on hand: a fine-point permanent marker, simple forms around which to wrap wire, such as round pens, pencils, dowels, or cans; tape; paper; and string.

### Tips

Buy all of your pliers at a bead or craft store rather than a hardware store so they are the appropriately sized for making jewelry. Comfort is important to reduce wear and tear on your hands, so explore different types of pliers and cutters to see which are most comfortable for you. For example, some have ergonomic handles and/or springs, while others don't. As you shop, you'll notice that more expensive pliers and cutters have finer points and tend to feel more solid in your grasp.

## Basic Tool Kit

**Chain-nose pliers** are flat and smooth on the inside so they don't mar the wire when grasping it. The jaws taper to a fine point for detailed manipulation. These pliers are used for all wire handling and grasping, as well as for bending.

**Flat-nose pliers** have flat, wide jaws and are used primarily for grasping and bending wire.

**Round-nose pliers** have jaws that look like tapered cones. These pliers are used exclusively for making loops or rounded shapes. They should not be used to grasp the wire, as they put pressure on it and can weaken it by forming an indent.

**Jeweler's wire cutters** have very sharp blades that come to a fine point. When cutting a piece of wire, the blades will leave one side with a V-cut and the other side with a flat (or *flush*) cut.

**Wet/dry sandpaper** is used for final hand finishing. It's available at hardware stores in a wide range of grits. The best grits for wirework are 320-, 400-, and 600-grit.

**Abrasive scouring pads** are used to achieve matte finishes. You can buy these pads at hardware and grocery stores.

A **flat metal ruler** is necessary for measuring wire and other materials. Use one that's at least a 12 inches (30.5 cm) long and that is also marked for metric measurements.

**Safety glasses** protect your eyes, especially when you're cutting wire or working with the long wires that you'll use for wrapping; these can whip around and catch you off guard.

**Basic flat files** can be found at your local hardware store. For wirework, the file doesn't need to be any longer than 7 inches (17.8 cm). This type of file is used mostly for shaping pin stems or on forms from which a lot of metal must be removed.

**Needle files** come in sets that include a variety of shapes. My favorite is a barette file, which is flat, pointed, and tapered on one side to get into tight spots, and which has a smooth, peaked back side so you don't accidentally cut into a wire that's nearby. When buying files, the smaller the better; a length of 4 to 6 inches (10.2 to 15.2 cm) is best.

In general, I like to start my projects with a little more wire than is called for. Wire gets hard to manipulate in short lengths, so adding a little extra at the get-go means much less frustration later. All of the projects in this book have a little extra wire built into their measurements, but feel free to work with lengths that are comfortable for you. I think the easiest lengths to work with are between 6 inches (15.2 cm) and 2 feet (61 cm). When working with wire that's shorter than 6 inches (15.2 cm), you'll need to rely on your pliers more in order to manipulate it. And when you're working with wire longer than 2 feet (61 cm), you'll need to watch where it goes—make sure you're wearing eye protection because the wire definitely twists and flies around.

## Cutting Wire

There are many different types of wire cutters available. I've tried several different kinds, and I must confess that I love my 11-year old pair, which I bought for almost nothing at a bead store. Whatever types you use, purchase them from a craft or bead store—not from your local hardware store—so they are the appropriate size for the scale of the work.

Whenever you're cutting wire, make sure to point your cutters down. If possible, hold both pieces of wire to prevent either end from flying out of control. Some pliers come with wire retainers that prevent the wire from flying. Most basic wire cutters cut in a similar manner: when you cut a piece of wire, one cut end will be *flush cut* and the other will be pointed. All of my projects refer to flush cutting—the process of cutting a wire so its end is flat (or flush).

## Finishing Cut Ends

After you've finished a coil or wrap and trimmed the wire, sometimes the wire end will only need to be flush cut and squeezed with pliers so that it pops into alignment. With heavier wires or when you can feel the cut end of the wire sticking out, you will need to tuck in (or flatten) the tail slightly by giving it a squeeze as you rotate the pliers in the direction of the coil.

## Filing and Sanding
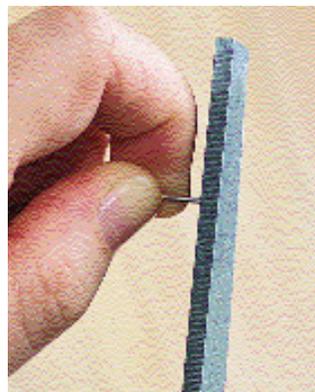
If a wire end is purposely exposed and needs to be finished smooth, the first step is to file it with a flat file. For a flat, squared-off end, work with a flat file and file the end in one direction until there is no resistance and the cut end has a smooth reflection in the light. If possible, work with a file that's wider than the cut surface; a wide file will make it easier to achieve a level end.

To file an end to a point for a pin stem, work with a larger flat file. Hold the file at a 45°angle to the wire and file in an upward direction (from base to point), while rotating the wire until a sharp point is formed.

## Oxidizing Wire

You can change the color of some wires by working with oxidizing agents—compounds that speed up the natural tarnishing process. These compounds are available through large jewelry suppliers and some craft stores.

Liver of sulfur is the oxidizing agent I use most often. It works on many different metals. I've had the most luck with sterling silver and copper, and it works subtly with brass, but it's ineffective with nickel silver, fine silver, and color-coated craft wires. A liver of sulfur solution turns silver black but can also bring out other colors, depending on how it's applied. My favorite method is to buy the dry compound (liver of sulfur comes in rocklike chunks) and mix a batch the size that I need. There's no set measuring method; I use a chunk in a small glass jar for small batches and several chunks in a large glass dish for bulk wire and larger pieces. I don't save my batches; I mix one fresh every time so it's as strong as possible. Stir the solution with a bamboo skewer or similar object; make sure to use only tools and containers dedicated for this use.

Liver of sulfur comes with mixing instructions, but I've found that using boiling water makes it much stronger and more dramatic. Experiment with dunking the wire quickly, at different areas on the same piece of wire, or for a longer period of time to see what colors develop. The colors that come out of sterling silver can be light gold; copper; burgundy; black with green, blue, or burgundy undertones; oil-slicked; or a totally flat gray.

Pliers can nick an oxidized finish, so oxidize your piece after all the bending is finished. If touch-ups are needed, dip a cotton swab or small paintbrush in the solution and apply the solution carefully.

You can change the look of a piece even more by following the oxidation with some of the finishing techniques described on page 28.

## Finishes

You can apply a finish to a piece before, after, or instead of oxidizing. The easiest finish to apply, in my opinion, is a brushed finish. Brushed finishes can be done in a number of ways, and each has a slightly different look. You literally use a steel or brass brush designed for finishing purposes. Simply brush the object at all angles to create very tightly spaced, even scratches. The result is a subtle scratched surface that is still generally shiny.

For a more matte appearance, try rubbing the piece with an abrasive scouring pad. Hold the piece flat on some paper or another work surface, and apply firm pressure while rubbing in all directions. Pay attention to all the edges of the piece, especially if it's hammered. *Note*: You can get a similar texture by using steel wool, but it has a more random pattern, and I think it's much harder and unpleasant to work with.

If you want a more textured, reflective finish, try different grits of sandpaper. Rub the paper in one direction, in a circular motion or in a random pattern to get different looks. I usually go no lower than 220-grit because paper that's any rougher will create a texture that you can feel rather than just see—which is fine if that's what you're going for. For a very prominent finish, you can also use a flat or needle file.

The thing to keep in mind is to choose an appropriate texture for the piece. Don't overtexturize an ear wire or something that will touch your skin constantly. But do have fun playing around!