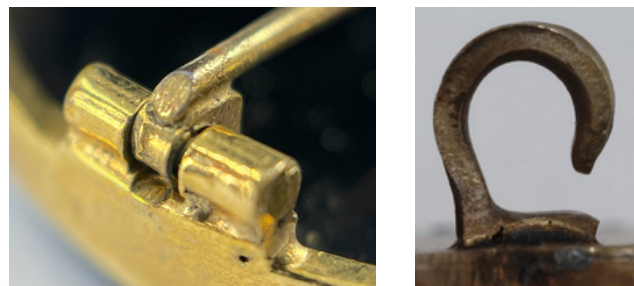
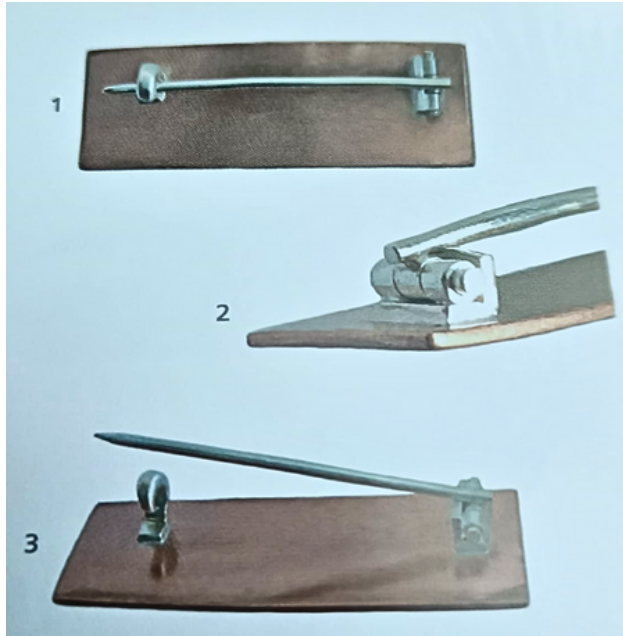


# Making a hinged pin and hook

This is a classic project for the beginner to intermediate level student. I was taught this on my degree course 25 years ago. It will test your accuracy along with teaching you lots of fine detail work. I have used the book Louise bought for the class 'Fastenings and Findings' by Sarah Macrae for inspiration.

## INGREDIENTS

6mm x 6mm of 1mm silver sheet  
10mm of 2mm tube  
20mm of 1mm round wire  
50mm of 1.2mm round wire  
20mm of 3mm x 1.5mm D shape wire



- *Carefully place the wire on it's end on a steel block and use a riveting hammer to splay the ends of the metal into the countersunk tubes. Tap on one side, turn over and tap the other side. Go gently.*

## 1. FOR THE L-SHAPE TUBE STAND

- mark the half way point and score a line on the sheet metal
- file a V with a triangular file, finish with a square file to create a right angle
- anneal, quench, dry and bend with parallel pliers to create perfect bend
- pick solder the bend

## 2. FOR THE TUBE HINGE

- use dividers to mark a 2mm score line. Use your fingers, a pin vice or a tube cutter to hold whilst you make the first cut. Repeat twice more.
- try them on the 1mm wire to make sure they sit neatly beside each other.
- flux and arrange two pieces of tube either end of the L-shape crease making sure that the middle one (for the pin) still fits before you solder.
- file any tube protruding off the end of the L-shape.
- use a slightly bigger drill bit or stone setting burr to countersink the tube ready for rivetting.

## 3. TO MAKE THE PIN

- measure & cut desired length of the 1.2mm wire
- file, sand the ends. Using a planishing hammer and steel block gentle flatten one end of the wire.
- solder the flat end to the third tube. It's important to make sure it's precisely at a right angle or you will have a wonky brooch pin!
- file the end of the brooch pin a short stumpy point

## 4. PUTTING IT TOGETHER

- Solder the L-shape component to the brooch back
- place the third tube & pin between the two tubes on the L-shape base. Use 1mm wire to hold it in place. Take a look at the angle of the pin, it needs to sit around 30 degrees, pointing up into the air. Remove the middle tube & pin and use a file to reduce the L-shape if needed.
- Once the solder parts are filed and sanded place the pin back with the 1mm wire through the middle of the three tubes. Measure and cut enough wire that 0.5mm is protruding from each end. File, sand, anneal and clean the wire.
- Rivet the pin

## 5. FOR THE HOOK

- File a V shape into the flat side of the D shape wire 5mm from the end. Repeat as before, start with a triangular file, move on to the square file to create the right angle.
- Anneal, quench, clean, bend & solder. File the curved side of the short end flat so that it can sit on sheet metal.
- Line up the L shaped hook so that when it is finished it will hold the pin.
- Solder in place, file and sand the end into a curve and bend into a hook shape.