



International Association of Penturners

Wie ich meine Clips baue! (How to build my clips)

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Many roads lead to Rome, so it is with clips!

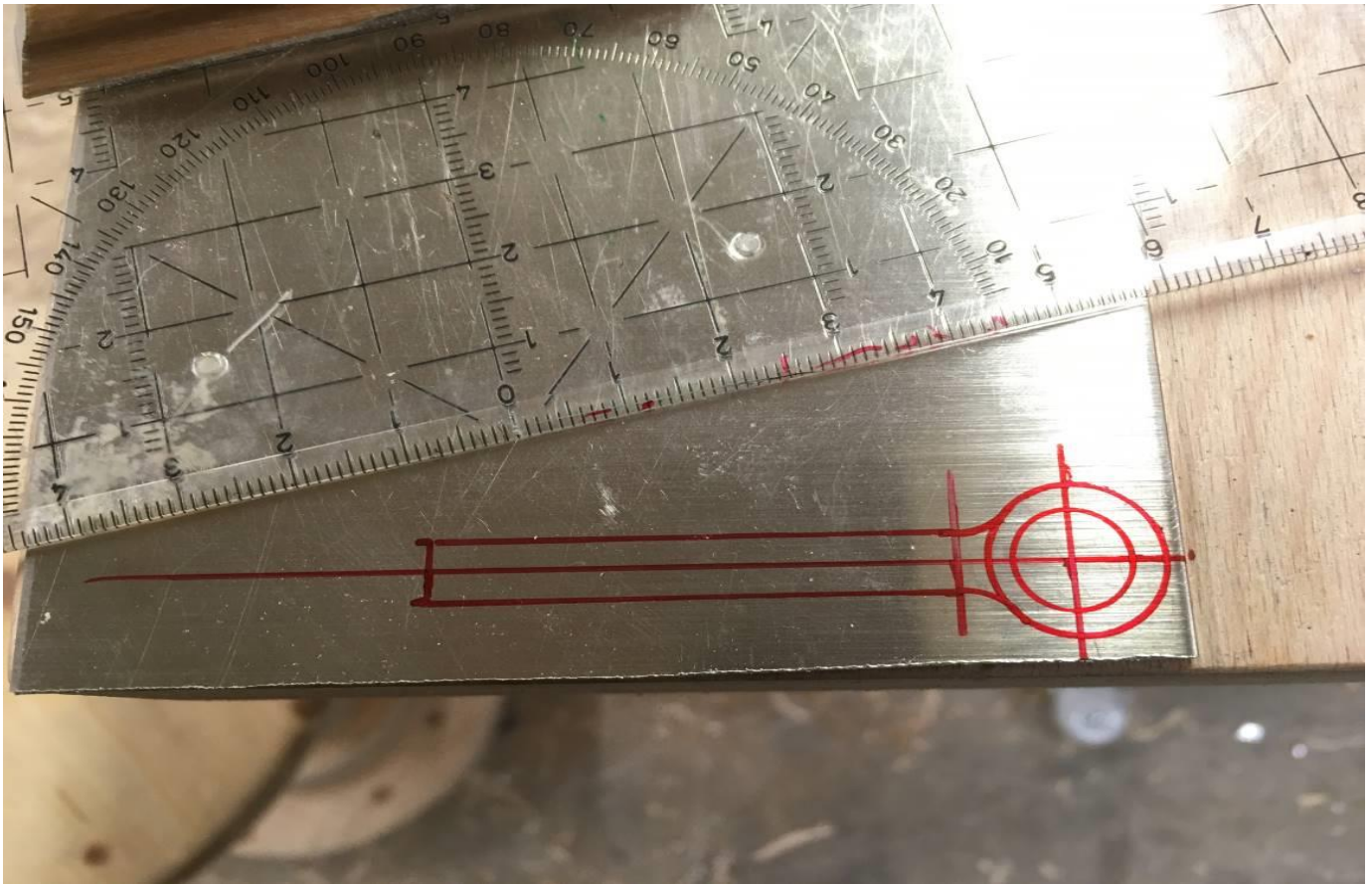
In the following I describe my method to you and maybe this is a suggestion for one of you.

What material do I use? I prefer to work with nickel silver. This time with 1.5mm thickness. I have planned a clip with a visible decorative ring, on the front I want to solder a piece of bronze, for more material thickness. Which tools do I use? Jigsaw, files, hammer, sandpaper, drill, buffing wheels, self-made auxiliary devices and hardened bolts.

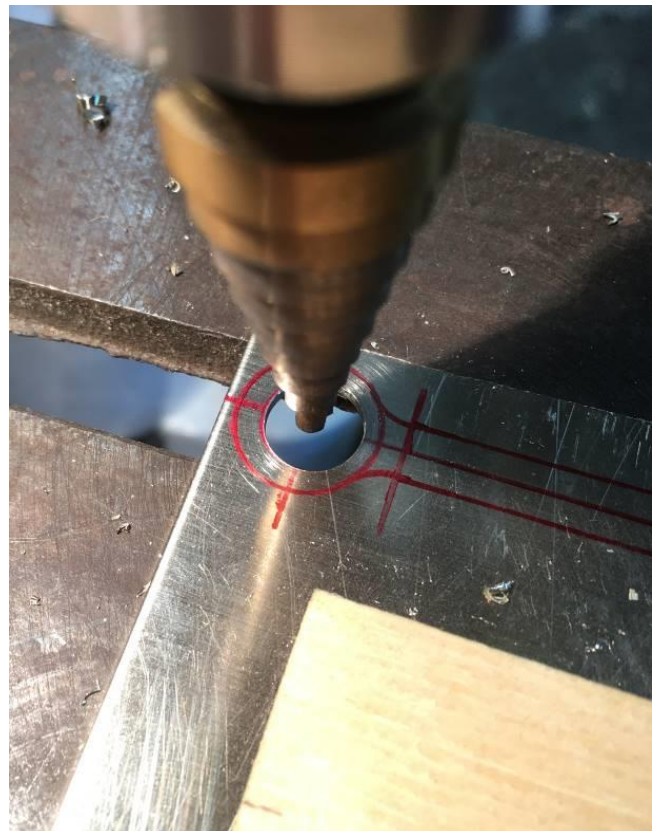


Let's go!

1. Transfer the template to the sheet.



2. **Drilling holes.** I used a step drill because this is safer than drilling through the sheet with a large drill. Still clamping the sheet!



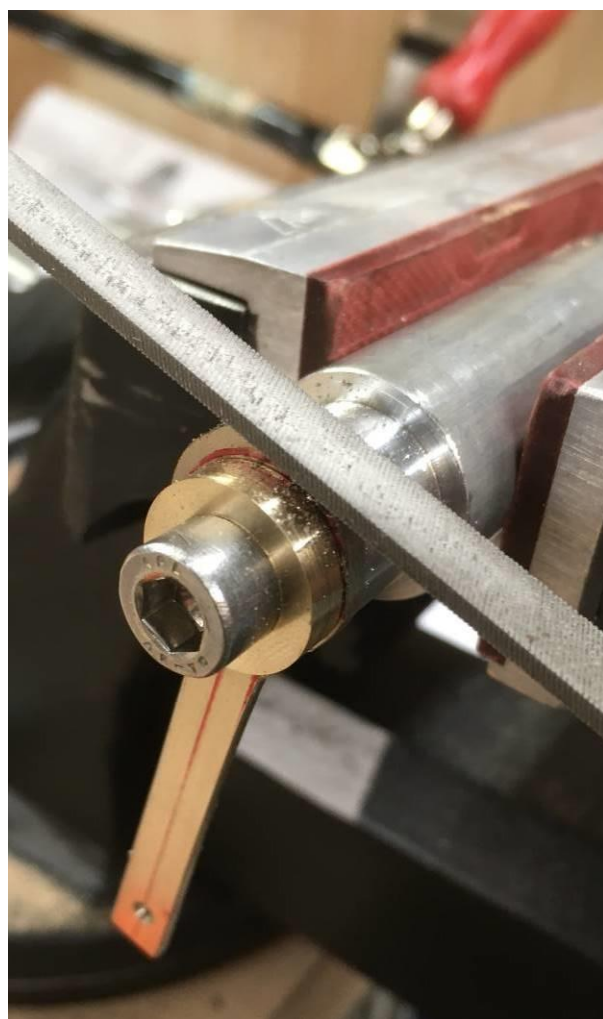
3. Saw out the blank. I did that with a coping saw using a hacksaw blade, some cutting oil and it works wonderfully.



4. File the blank outer contour.



For the radius, I turned a template with the finished outer diameter.



5. Bend the blank. Second little aid. The diameter of the mandrel is 4mm larger than the decorative ring, so that there is a 2mm gap between the clip and the cap. I filed a 1mm radius on the bending edge. I bent my first clips over a steel block, it works the same way.



With light hammer blows (100g hammer) I nestle the half clip on the mandrel.





6. [Adding the Bronze piece.](#) For this I made a 2mm hole in the blank, over which I riveted the bronze piece to the blank after I soldered the two parts.



7. File the clip shape



8. **Clip forging.** The nickel silver is softly annealed by soldering. That's why I cold-hardened it again by "forging" on a round piece of nickel silver. The little curvature also makes the clip more stable. Hammering also creates a slight swing along the longitudinal axis.

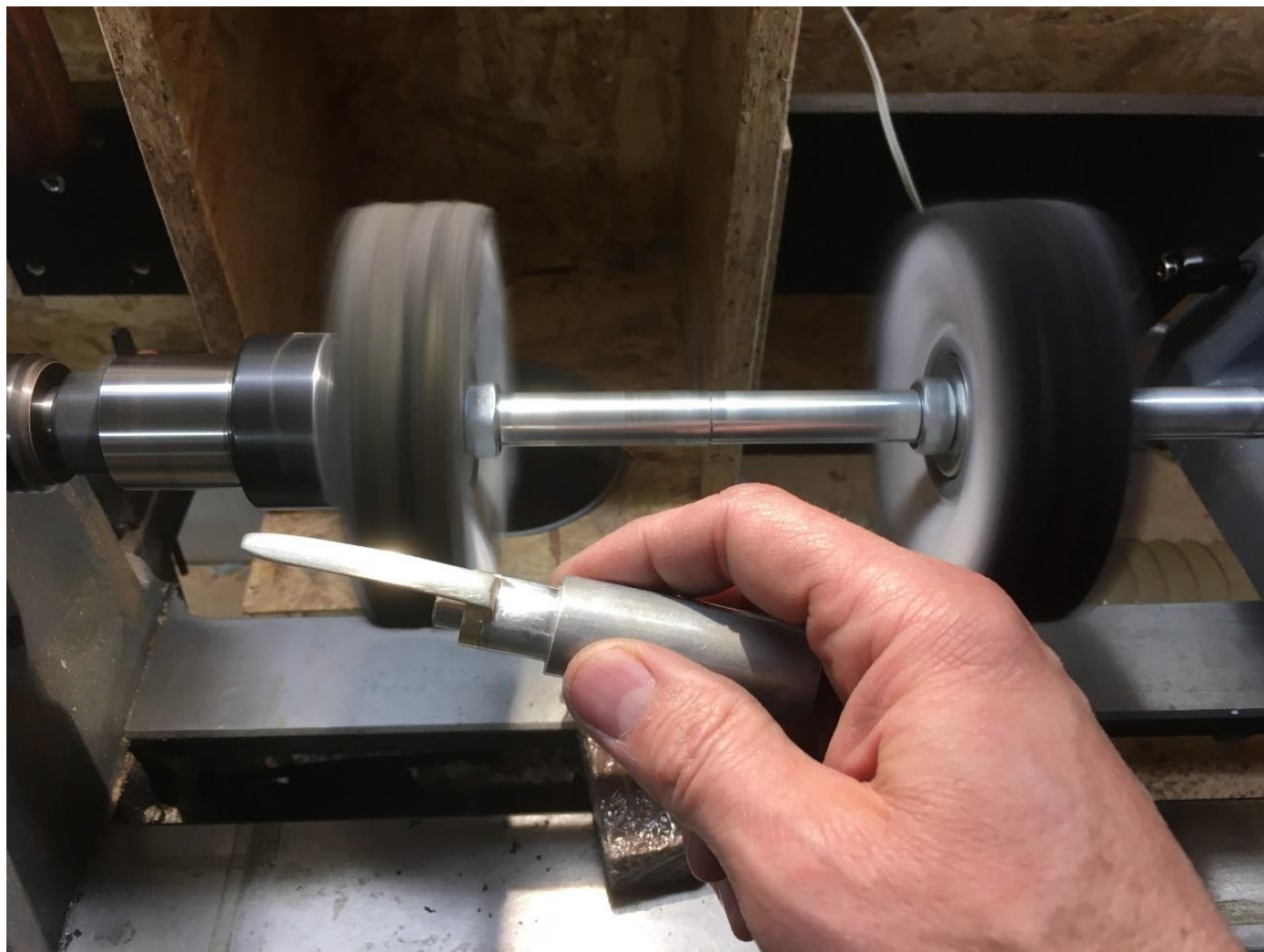


9. Grind the clip with 400 grit.



10. Clip polishing.

It is polished in two stages. Pre-polish on the linen disc. Gloss polish on the cotton disc.



Have fun tinkering!