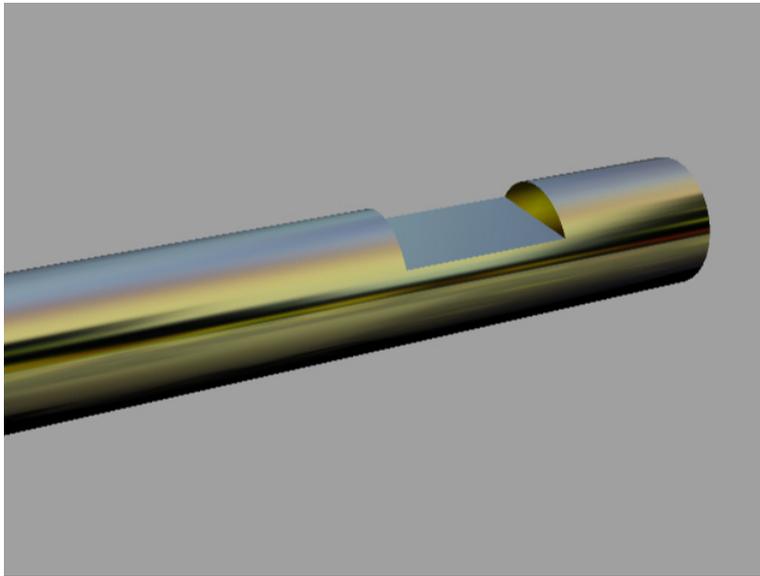
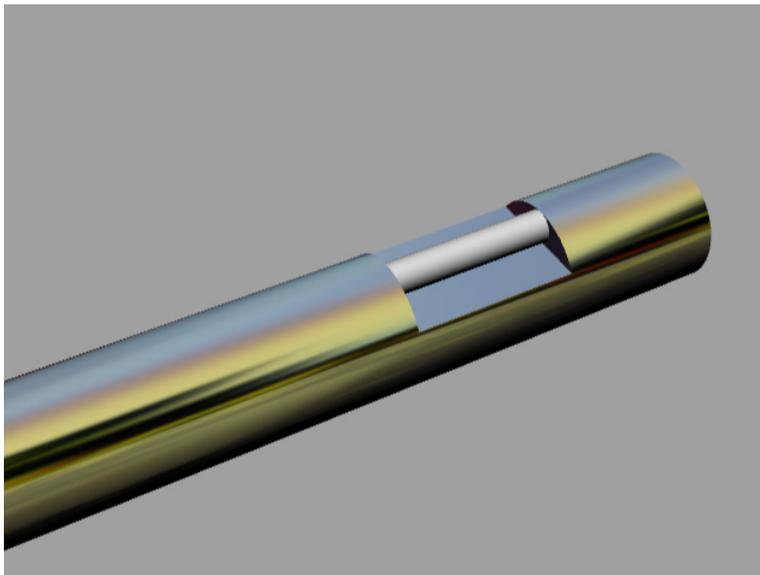


Pin Chuck

A pin chuck is nothing but a steel rod with a flat machined into it, and a matching steel pin. This flat can even be cut by hand, using a file.

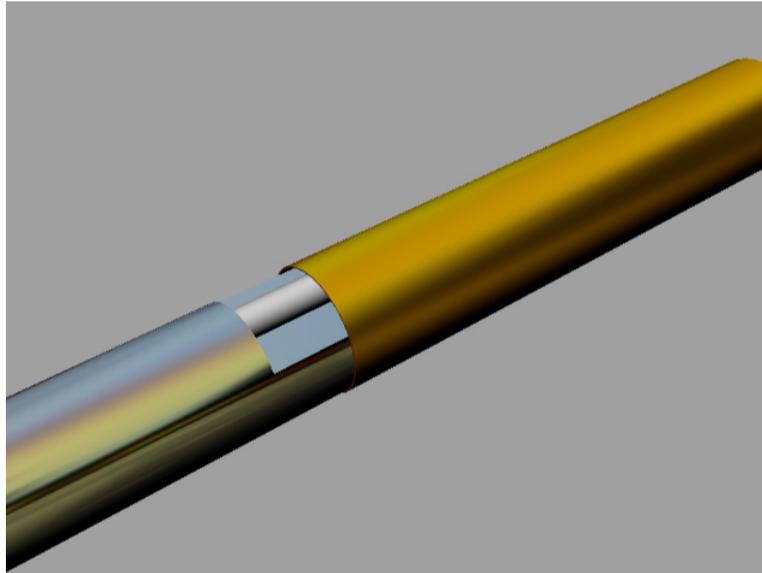


The depth of the flat has to be the same as a pin. It's best to make the pin first, out of steel or a cutoff nail even, then make the flat with a depth to match.

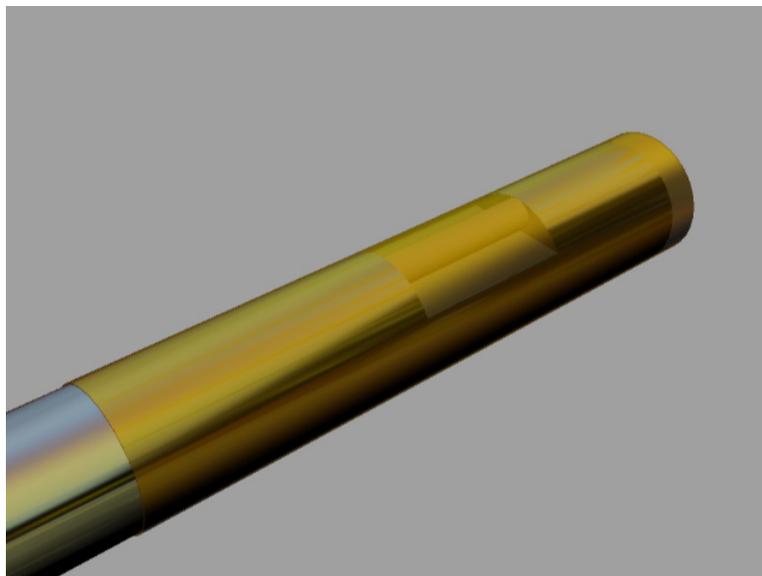


The pin is slightly shorter than the flat so it does not bind at the ends.

The diameter of the pin chuck has to match the pen barrel (brass tube) rather well. With the pin in place, the brass tube should just slide over the pin



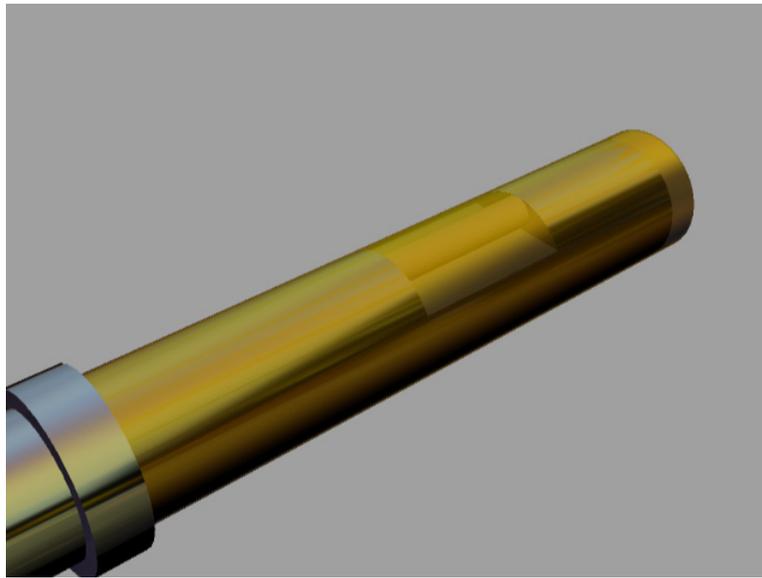
When the tube is slid all the way on, you can twist it slightly (against the rotation of the lathe) and the loose pin will act like a cam and lock the tube in place.



To unlock it, just rotate it slightly the other way.

You can hold the pin chuck in place in lots of ways. Drill chuck, scroll chuck, MT2 collet. My favorite method is the Beall collet chuck – it's the most concentric in my shop of the options I have available

Every diameter of tube needs a specific pin chuck.



If you have a metal lathe you can add a sliding bushing, although I prefer not to. I work with calipers, and I find having the end open gives me an easy way to square the barrel with a parting tool.

With a metal lathe, you can easily make a specialized pin chuck that allows multi-step drilling of the pen blank so you can turn more tapered shapes. It is best to have a piece of brass tube where the driving pin is, though, for diameter consistency. The stepped design allows better support of the wood during turning reducing vibration and chatter

