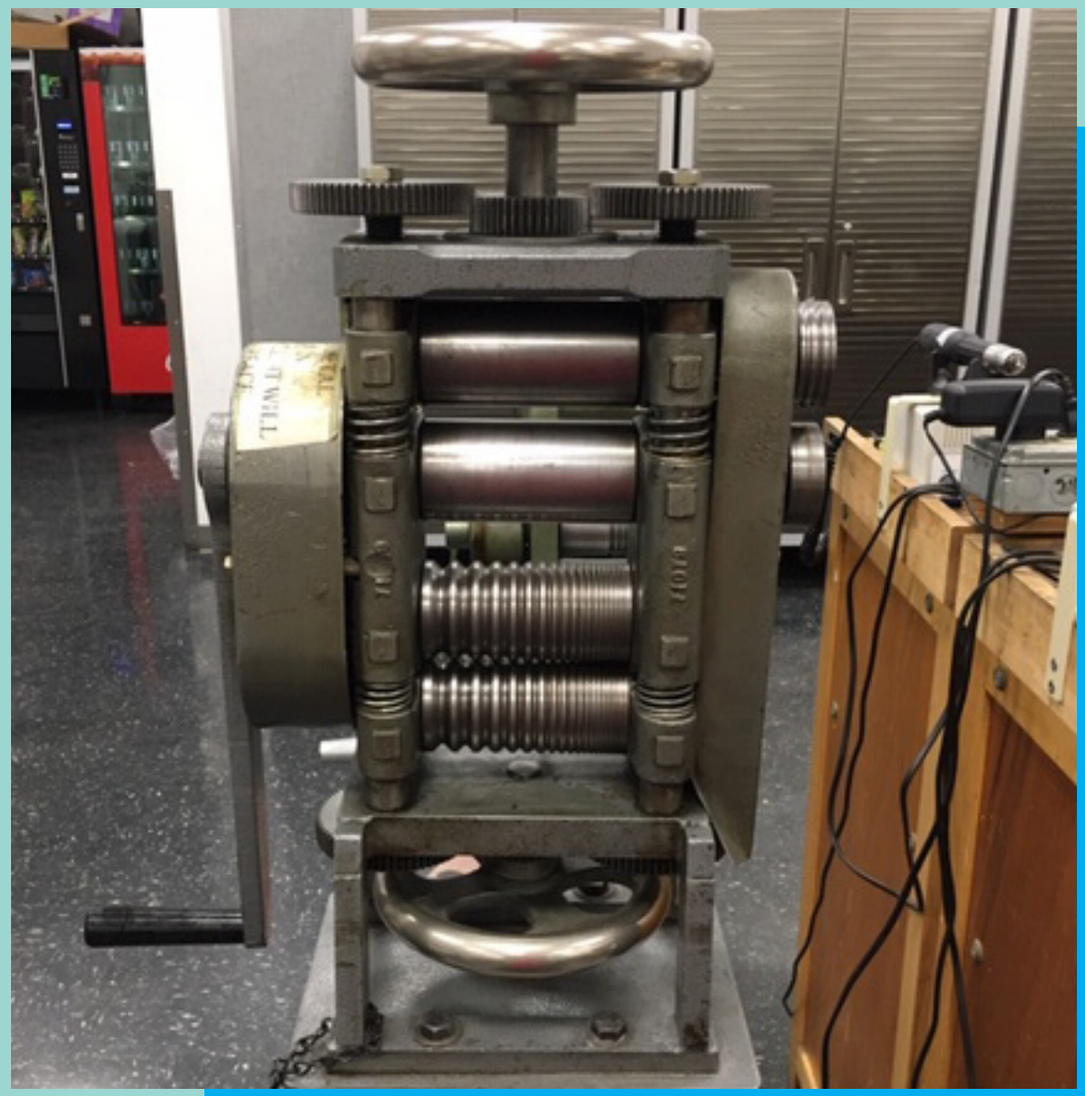
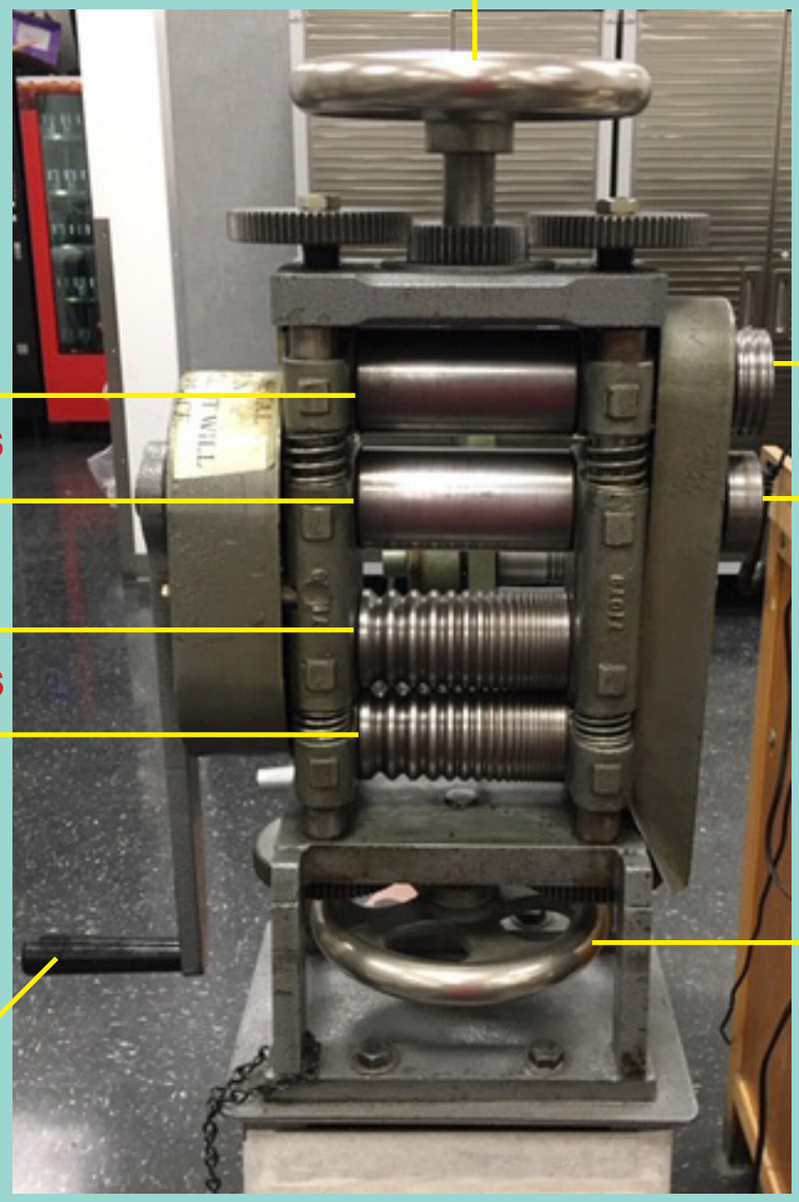
How to Properly use the Rolling Mill

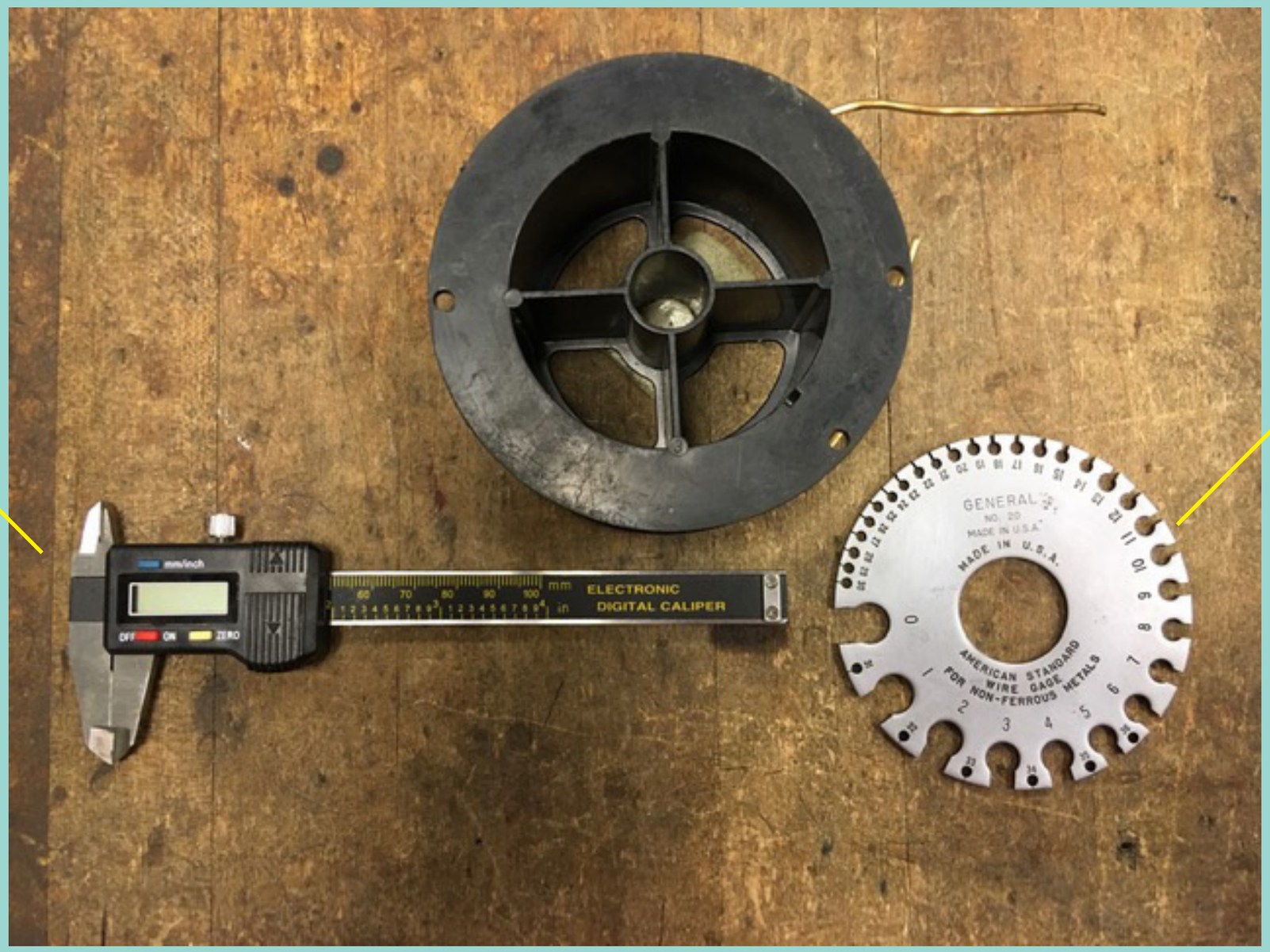


Rolling Mill Parts

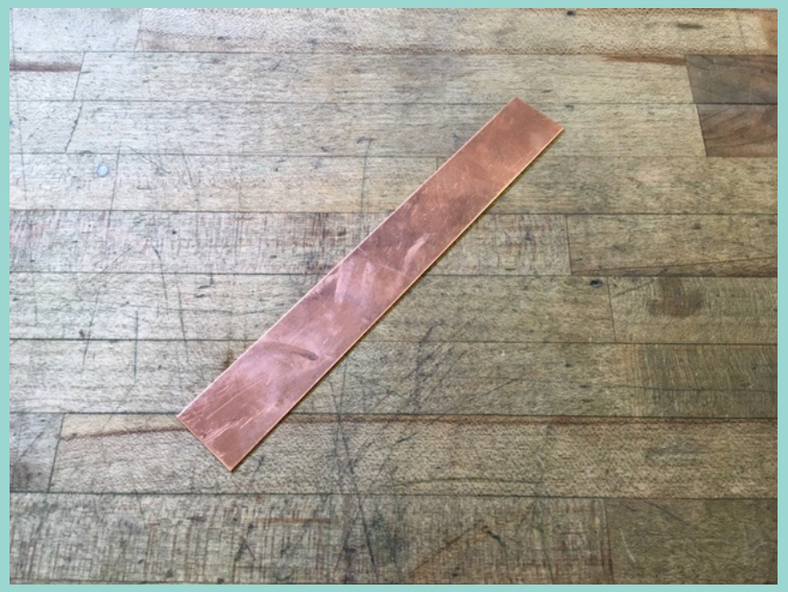


The Rolling Mill is a jewelry tool that thins metal, taper rods and wire, as well as is used for imprinting texture onto metal.

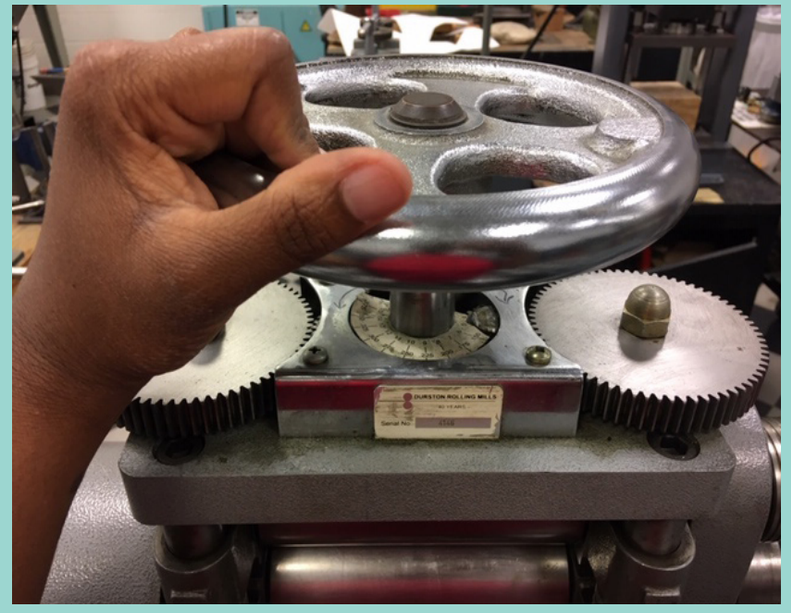
Helpful Tools



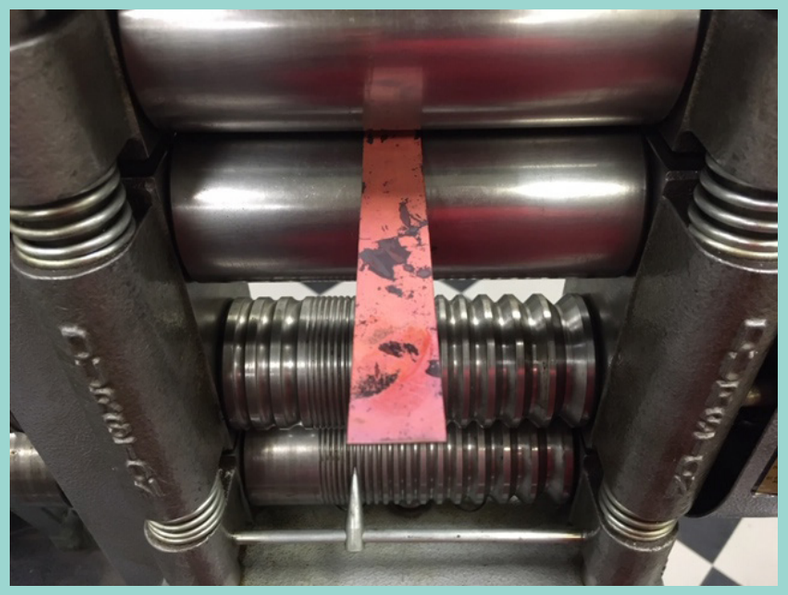
When using the rolling mill some of the tools that are helpful in the process are a guage plate and a caliper. These tools are very helpful to measure your metal thickness while working.

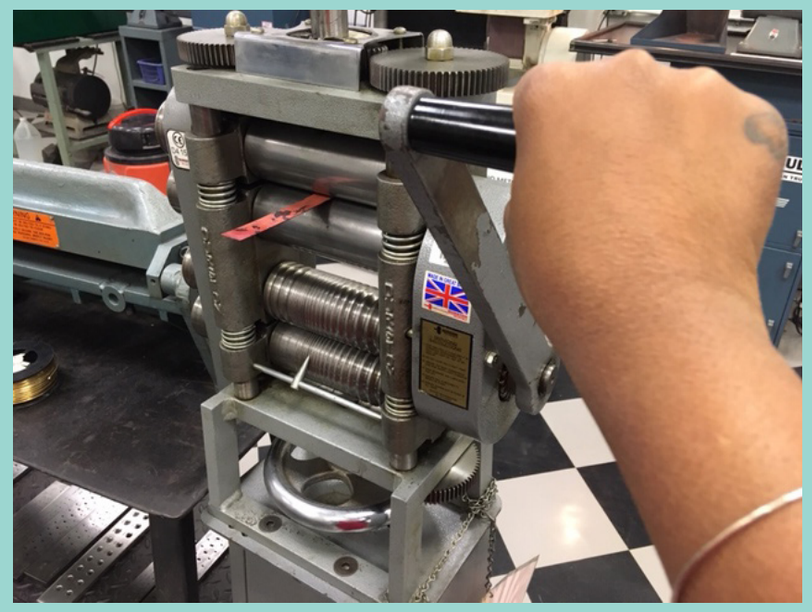


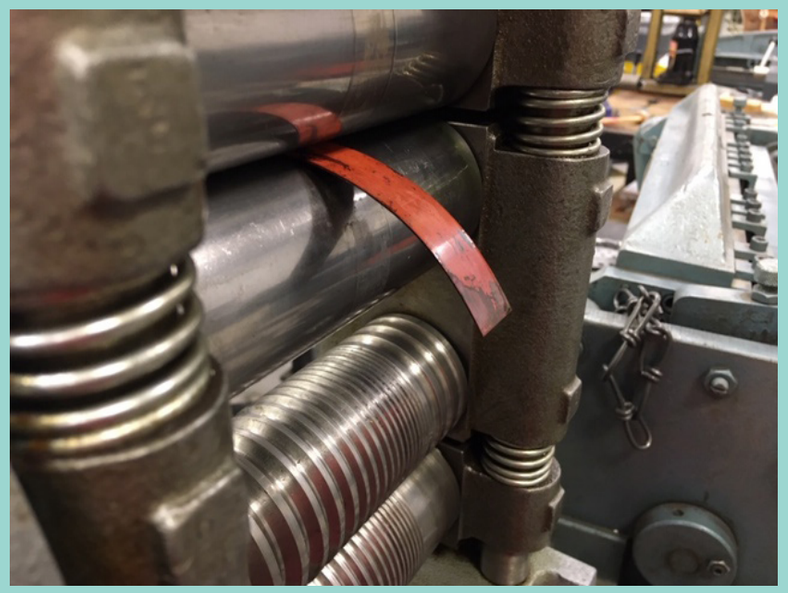
When using the flat rollers on the rolling mill, you want to first prepare your metal. Clean the metal if needed then bring metal to soldering station to anneal. Annealing is one of the most important steps in using the rolling mill because it prevents you from damaging the mechanisms and parts.



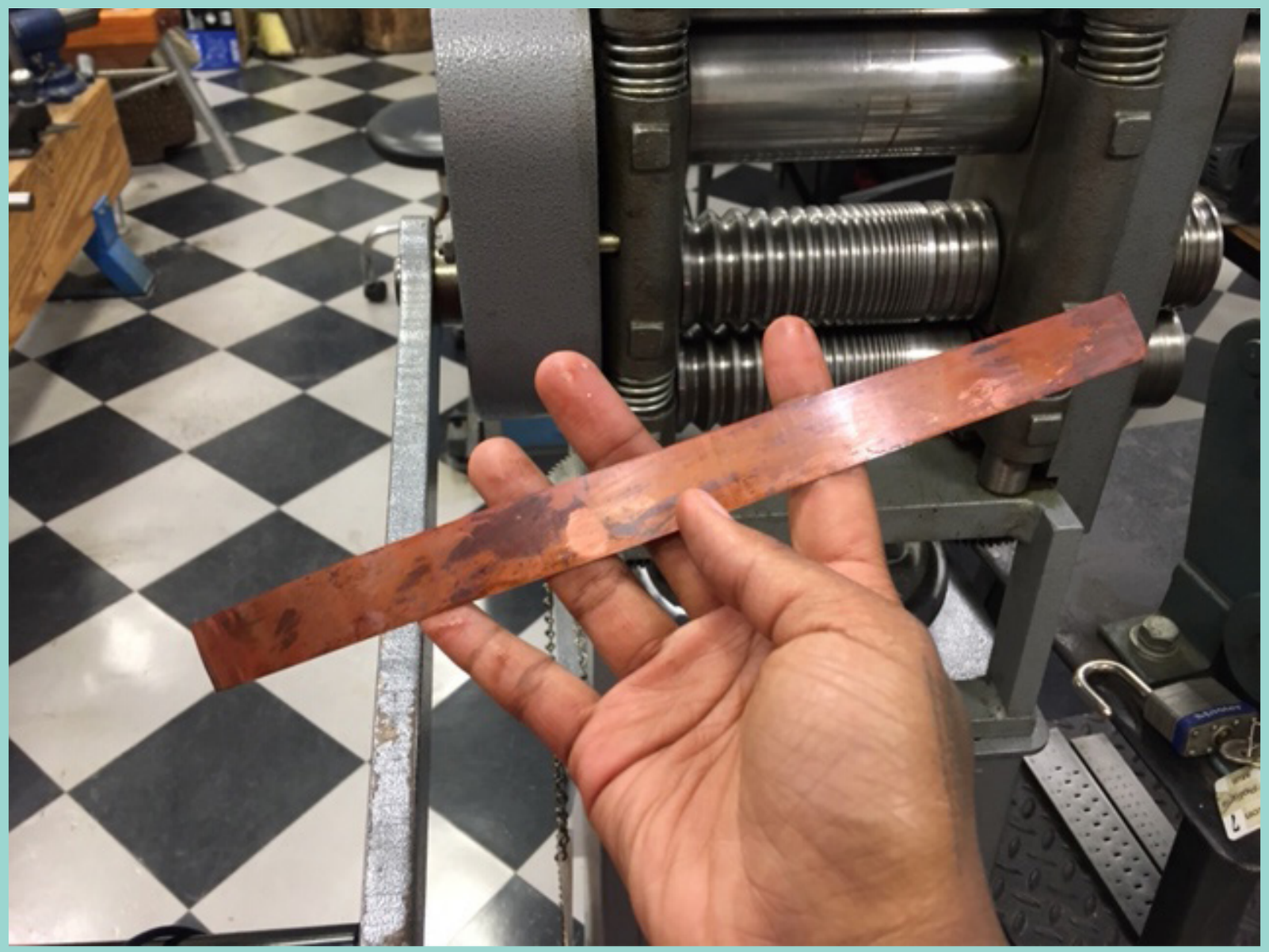
Once metal shows a dull red/orange tint, turn your torch off then quench metal in water. Be sure to dry metal completely before putting it on the rolling mill. Water causes the steel to rust and it can damage the quality. After metal is competely dry, take piece over the rolling mill and begin to adjust the thickness of the roller. The goal is to flatten the metal little by little without putting too much pressure on the metal, which causes cracking and equipment damage.





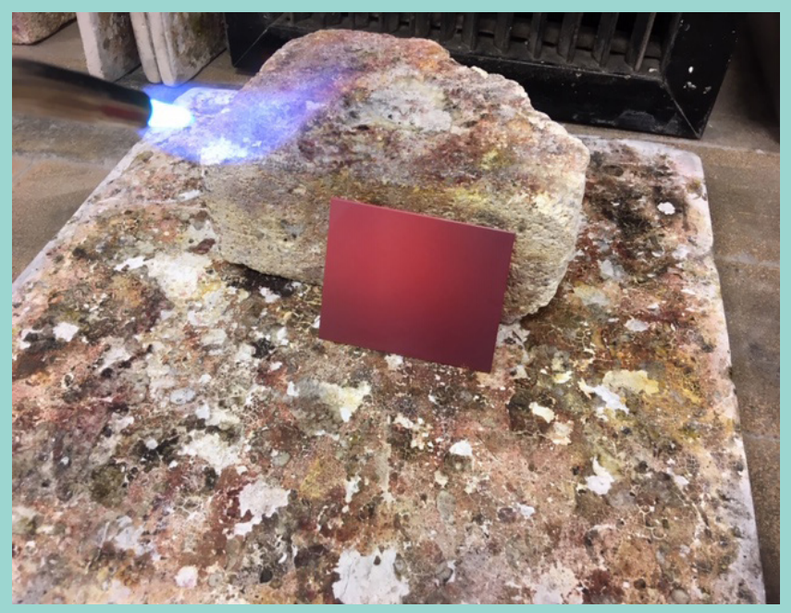


Use a sharpie marker to help you distinguish which side of the metal goes in the mill first. Afterwards, you can begin feeding the metal through the mill using the rotating crank handle. Be sure the rotate handle in the correct direction to prevent the metal from having additional dents and marks from the mill. After rolling metal through the rollers 4 times, you must anneal metal again. Each time you feed your metal through the mill, it work hardens. This also causes it to be more difficult to pass through the rollers. Please be sure to protect equipment from any damage!!!

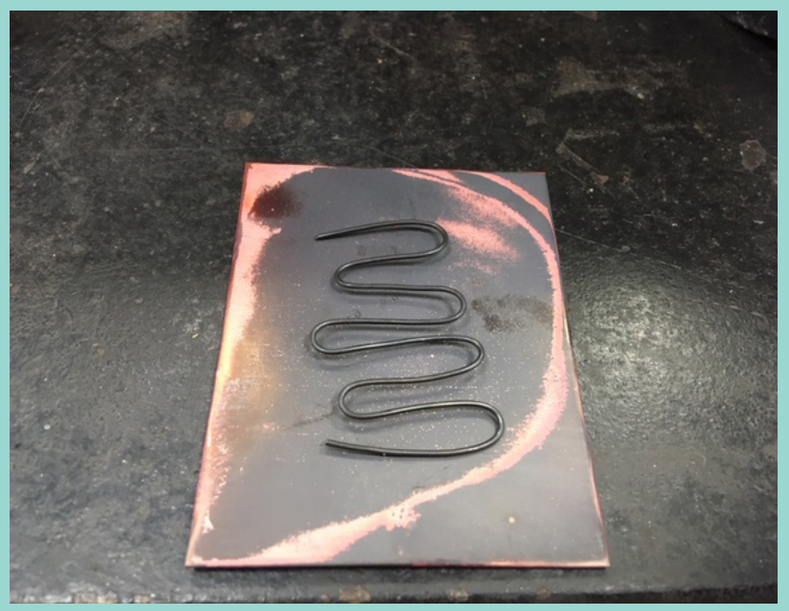


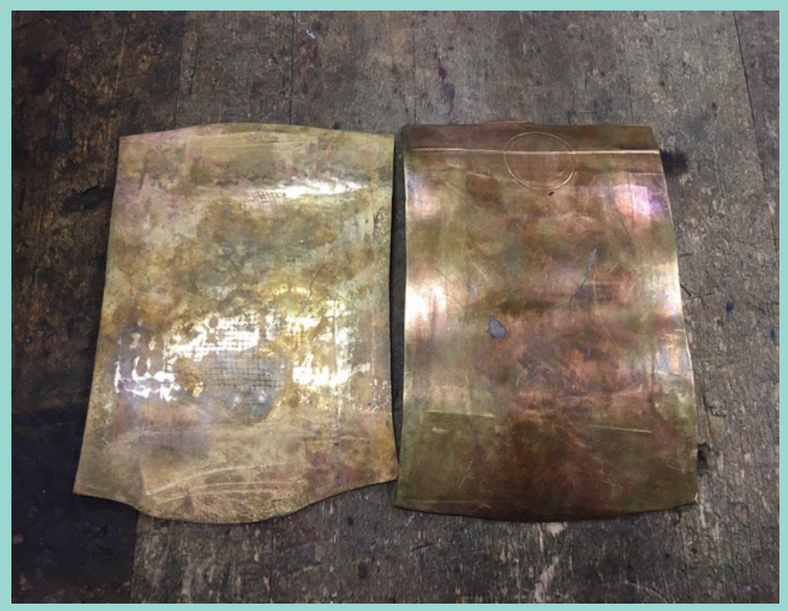
When complete you will have a different gauge sheet metal then you originally started that should be even throughout. If your metal is wavy, have buckles and cracks, you may have applied too much pressure. If you are finding it hard to turn the rotating crank handle, then you have put too much pressure on the metal!

Patterns and Texture on the Rolling Mill



When wanting to use the rolling mill to create textures and patterns, you must first prepare your metal and be sure that it is clear of any surface level and deep stratches and marks. Afterward, place your metal on soldering board and brick and anneal it until there is a dull red/orange tint.



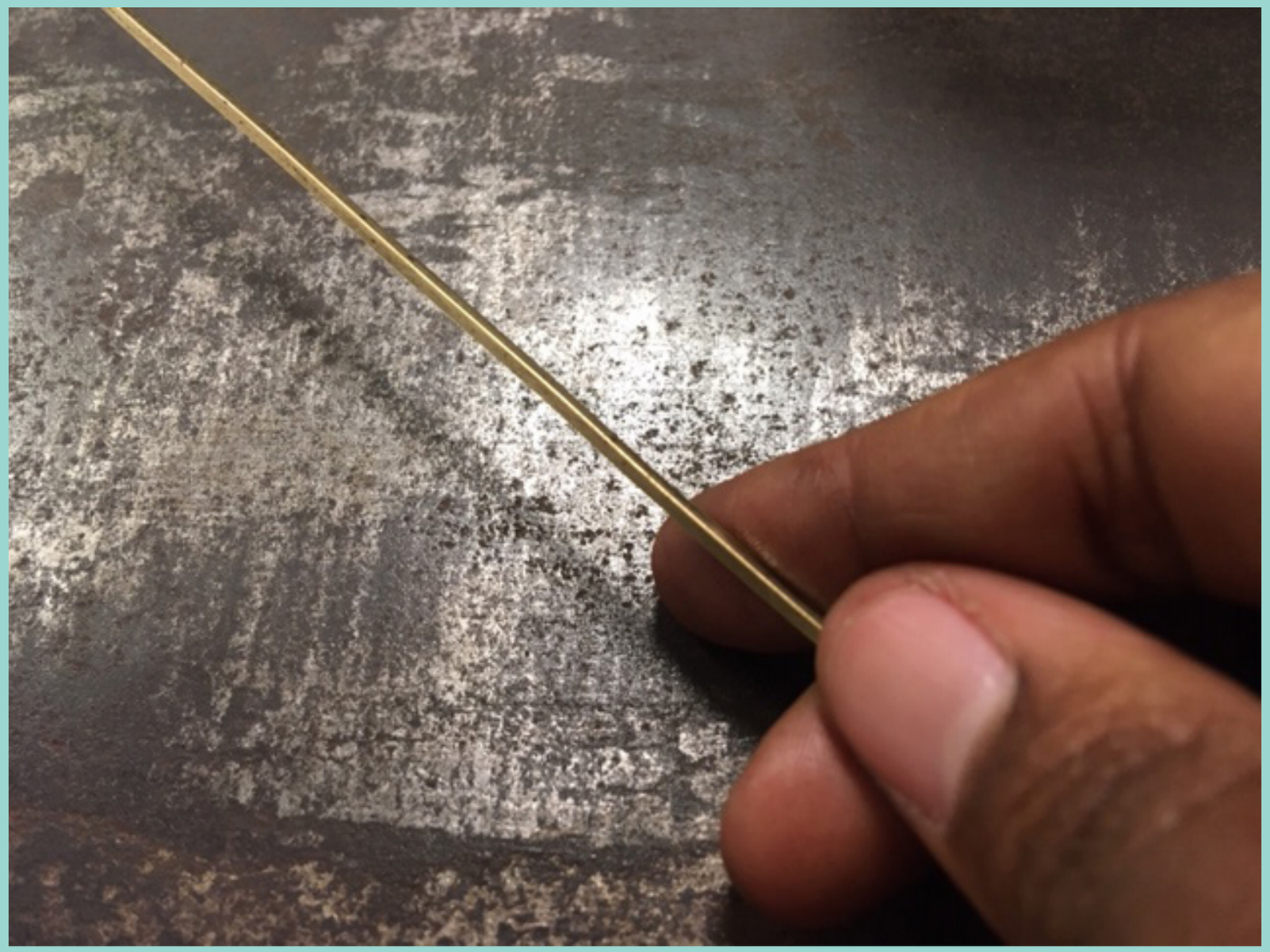


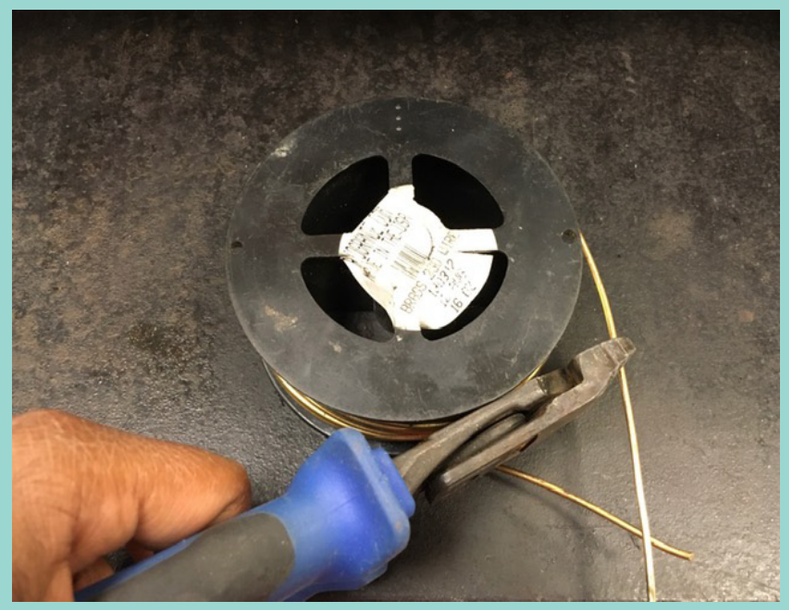
Quench metal in water. Ensure that your metal is completely dry before placing it inside the rolling mill to prevent rust and the damaging of equipment. When you metal is dry, you may begin to place any element that has a slight thickness onto the metal. (This can be wire, illustration board or anything you can think of that can create a nice texture or pattern on your metal). Once you material is place on top of your metal sheet, you will use two larger sized sheets of metal to cover your metal. These two plates or covers are extremely important!

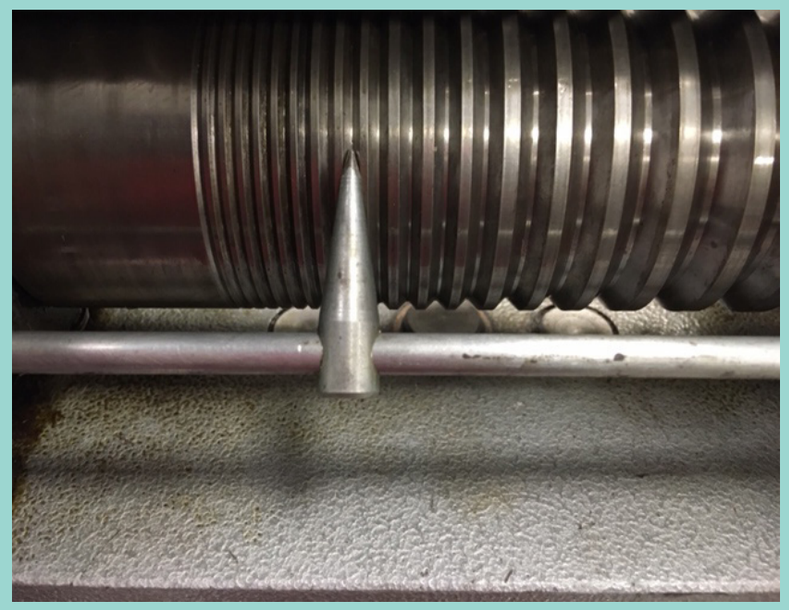
These two plates prevents any damage to the rolling mill. If you roll out your texture without these two plates, that imprint can transfer to the mill and damage the rollers, ultimately destroying another person's work. Be very gentle when placing the plate on top of your work so that your design positioning is not altered. Once complete be sure to adjust the rollers so that your design can transfer to your metal. Be sure to use the correct pressure so that your design shows up on your metal. Too much pressure can cause damage to the roller and injure you!

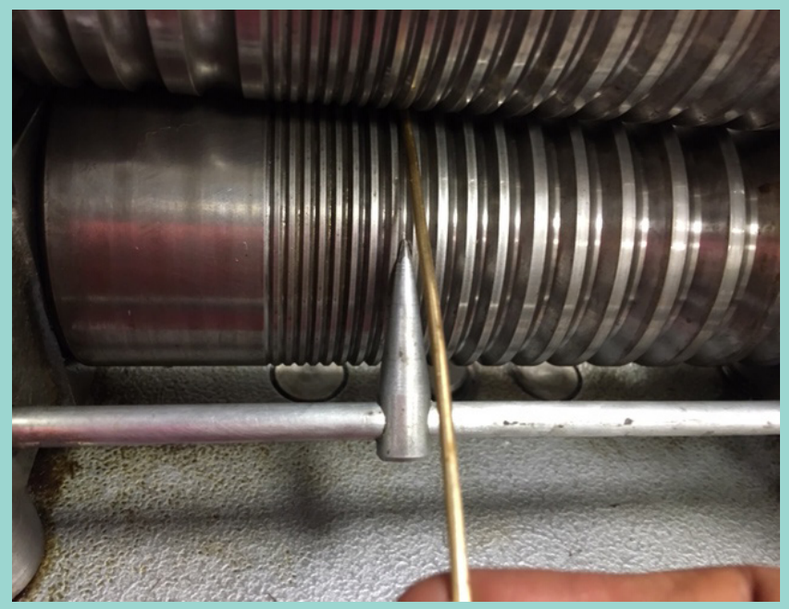
Once you have made a complete pass on your design, you may remove the plates and take a look at your design. Remember you determine how much pressure you want to apply to your metal! One pass should be good, but if you must make a second pass do understand that your design can slighty shift.

Using Square and D-Shape Rollers

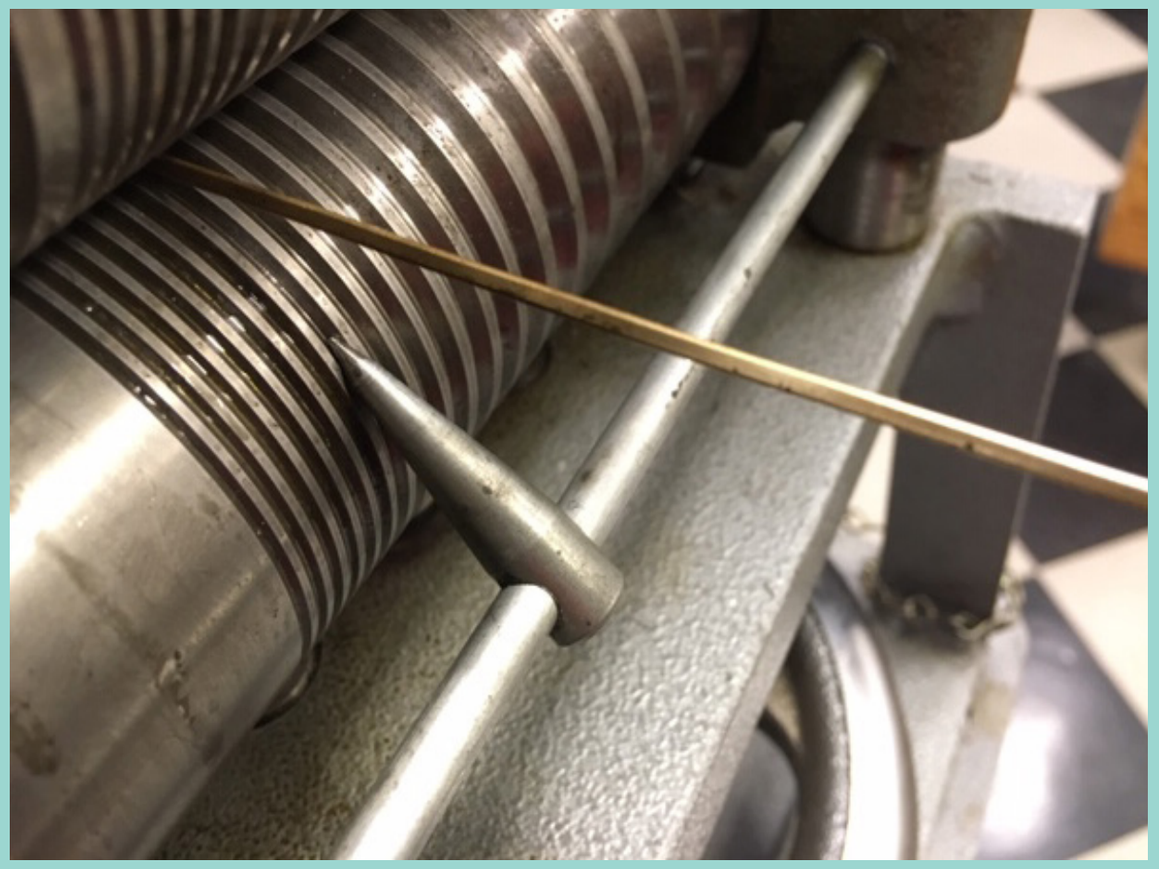


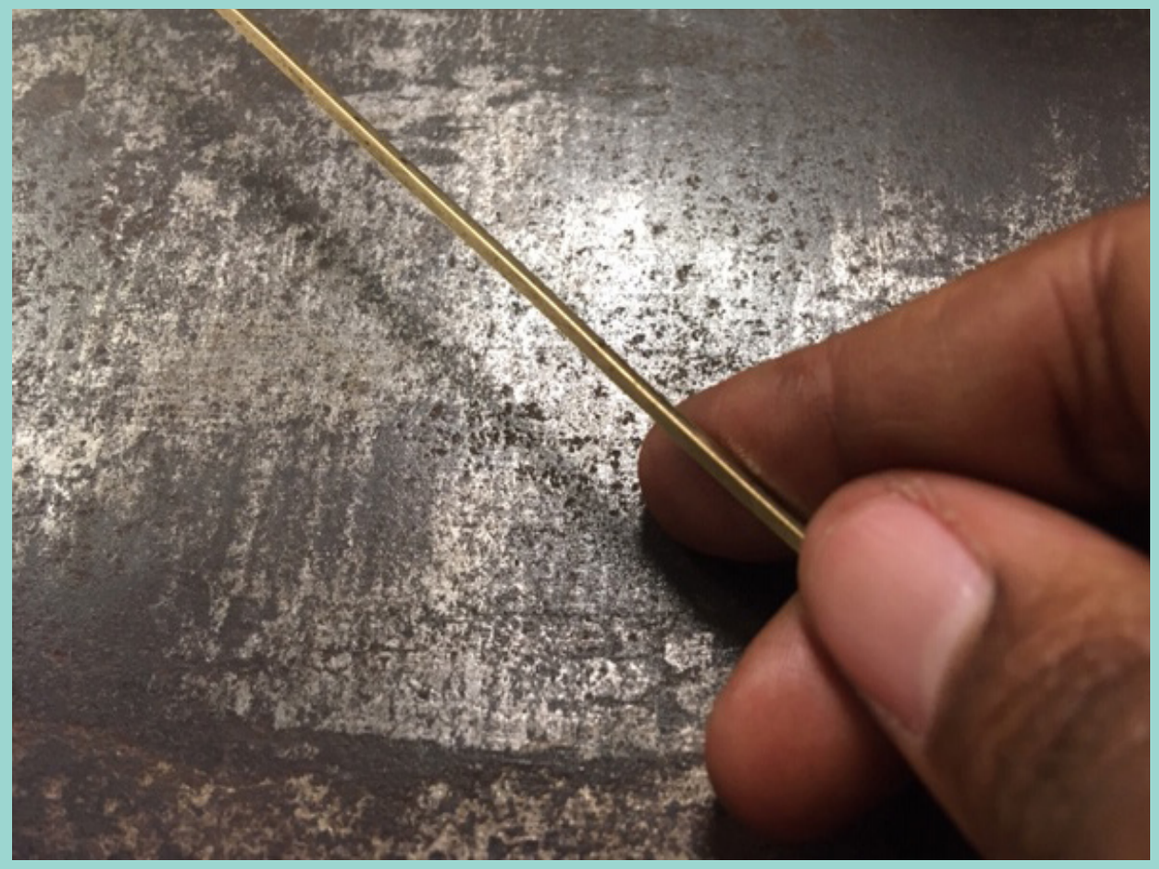




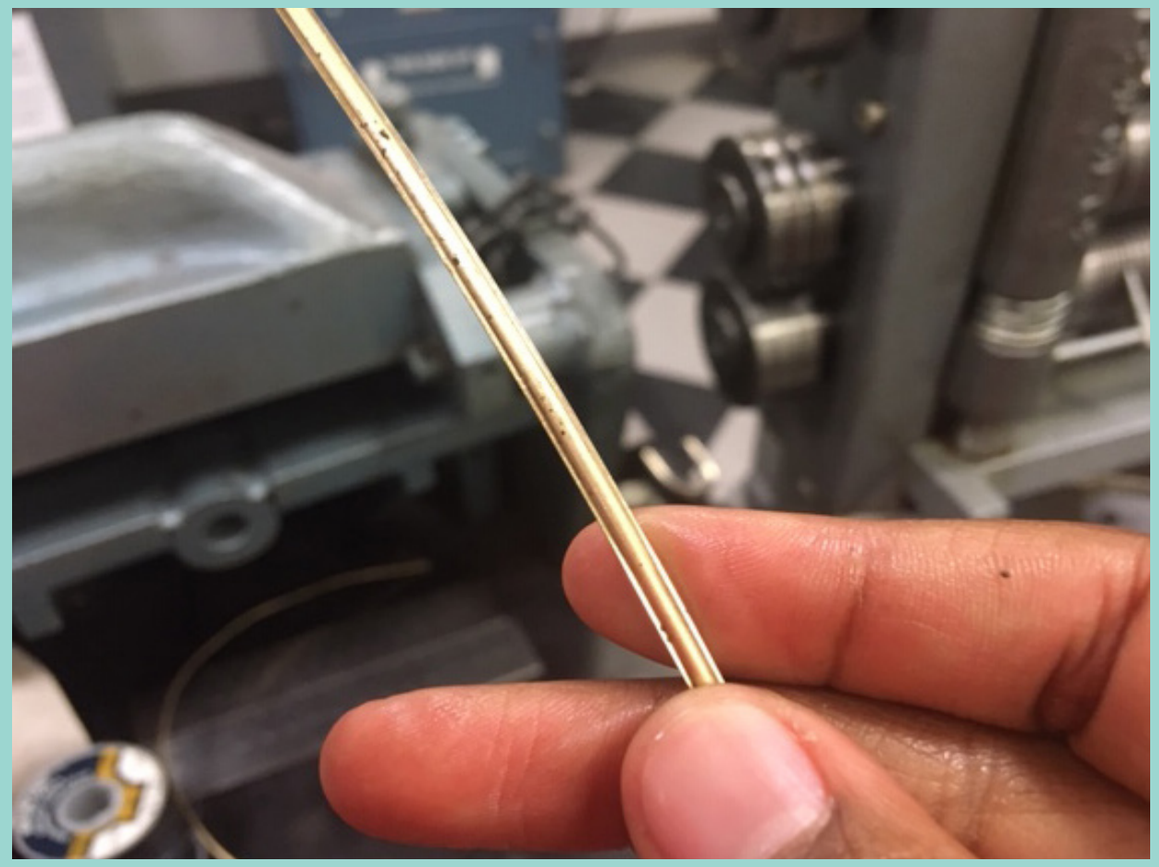


The square rollers are extremely helpful when forming and shaping wire into a square. Each section on the square roller are different gauges. You use the steel marker to mark where you are on the square roller so that you do not loose your place. When prepared to use the roller, you must first choose the wire that you want to form into a square. If it is bent in any way, be sure to use the rawhide mallet to straighten it. Remember the more you roll your wire the smaller the gauge will become. Be sure to move the marker each time you move from one section to the next.

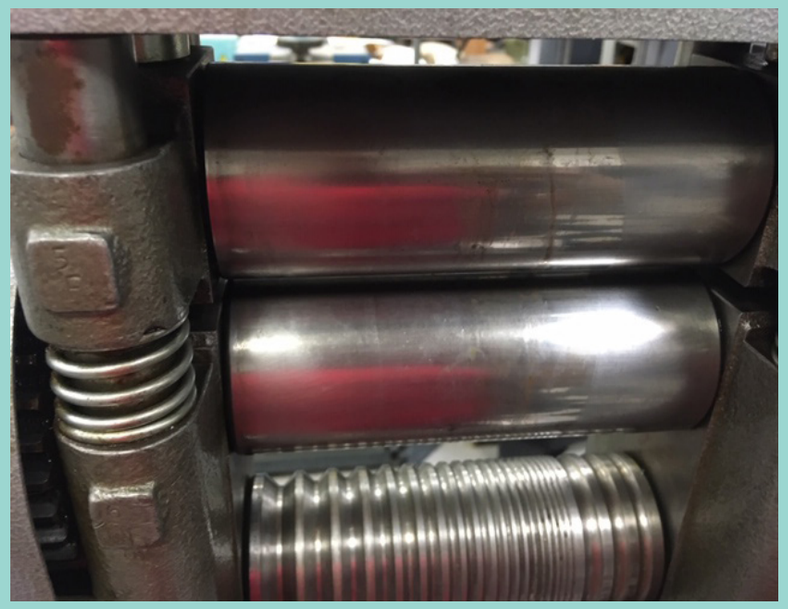


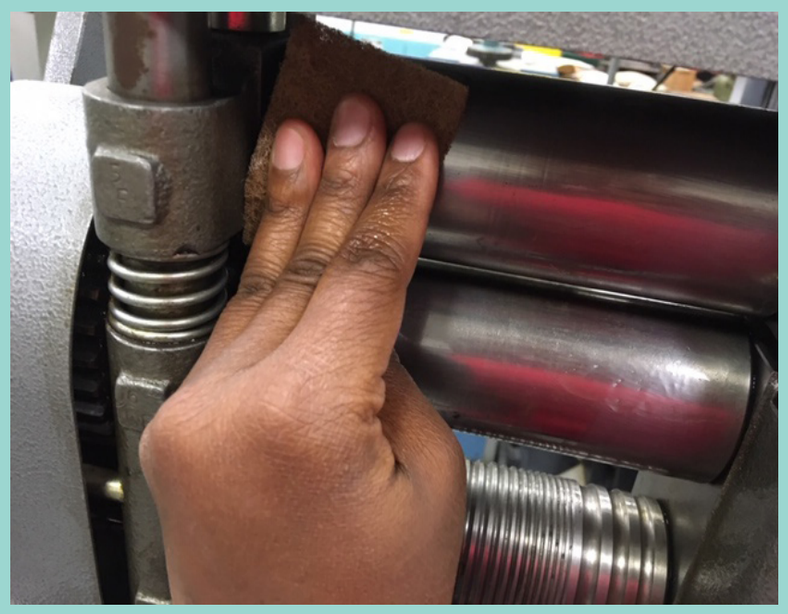


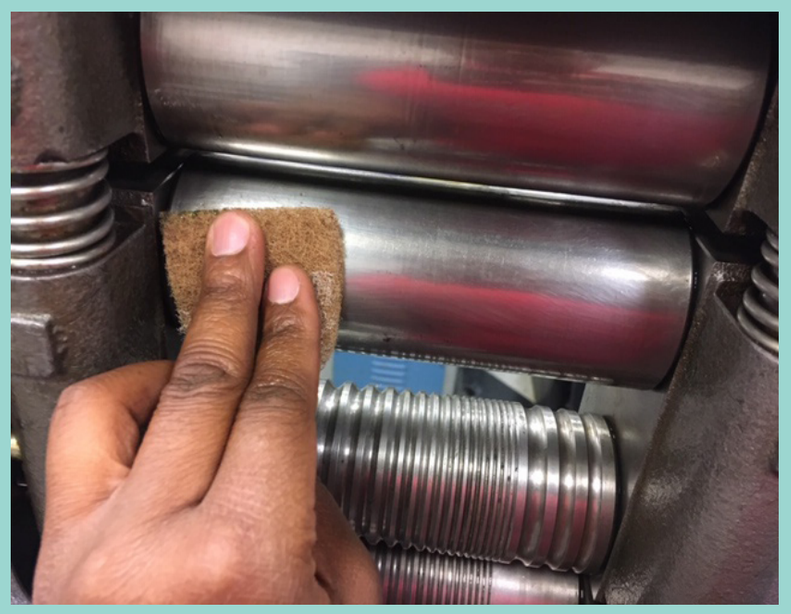
Pass your wire through the same square section two times before moving on the the next guage.



The D-shape rollers work the same exact way as the square rollers. The D-shape rollers are located on the outside of rolling mill. Be sure to place your wire in the correct direction because one roller is flat while the other is half round. Remember, the more you roll your wire the smaller the gauge becomes.







When you are done using the rolling mill, be sure to gently wipe down it down if you are sharing it with someone else to prevent damage to other's work. Remember to never put water or anything wet on the rolling mill to prevent damage!