

Basics in Blacksmithing - Part 1

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There are five basic areas that a person must learn to be a good blacksmith. Once you have mastered these areas you can make most anything that you can perceive because all else that you do as a blacksmith builds on these five basics.

Shaping, Pointing & Drawing, Bending Splitting, Joining

This first lesson is on what I call shaping, which consist of Squaring and rounding of the stock. Please go over each of these basics steps and practice them till they become second nature.

First things first. Before you can start Squaring or rounding your metal you must first place it in you fire and bring the metal up to a red / orange heat. Using tongs you remove your metal from the fire and place it on the anvil. I have watched many blacksmiths at work, and they all seemed to do it a little different and it worked. There is not a set way that things must be done, just some ways seem to be easier to do. Know matter which blacksmiths you watch you can learn something. Now we are ready to begin.

Squaring

As you place your round metal on the anvil try to position it as close to 90 degrees as possible and to have it as flat as possible upon the face of the anvil. Making a habit of this will make working on the anvil more of a joy . When the hammer makes contact with the metal it should be parallel to the face of the anvil. (the better you do this the less you will have to clean up your work in the end). Using a fairly flat faced hammer strike the steel in the same place near the center of the anvil, moving the rod of metal back and forth as you strike it. This will begin to create a flat surface on your metal. Remember to start this process a couple of inches in from the end of the rod.

As you are hammering on your metal rod be sure to move it back in forth. Do not strike it in the same place to long, but try to keep your surface as uniform as possible. Remember that you are not beating the metal but shaping it. As you hammer the one surface the anvil shapes the other surface at the same time. If you strike

the metal to hard you will leave depressions that will mar the final product. Now repeat this process at 90 degrees to the first surface.

This process will take several heatings before it is done. Once the metal has lost the color return it to the fire and reheat it . In my forge I can only heat up 5" to 6" of rod at a time, so I have to move the rod around in the fire between trip to the anvil with each heating till I have the whole rod shaped as I desire.

When you first start squaring your stock you will notice that it starts to look like a octagon. At this point you could continue to square it or on the four sides of the octagon that are rounded, you could repeat the above process till you have a uniform octagon shaped rod of metal. Now back to the squaring. Repeat the process of heating the metal and hammering along its surface then turning it 90 degrees till the rounded octagon shape is no more, but you have a uniform square shaped piece of metal rod. Remember the more times you heat the metal the more metal you will loose to scaling.

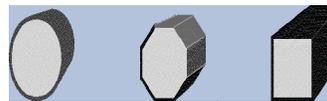


Figure 1. Steps

for turning Round stock to Square.

Rounding

As you can see from the figures below, rounding tends to be the reverse of squaring. Start with a square peice of stock. If the stock is not square, square it first before you begin. It will be a lot easier to round. Now heat your rod of metal and place it on the anvil so that two of the corners are in a vertical Position. Now hammer the metal remembering to move it back and forth to keep it uniform. Now reheat it and turn it 90 degrees. as you look at it you will see that is beginning to look like a octagon again.

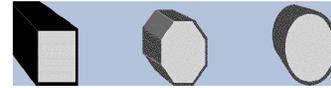
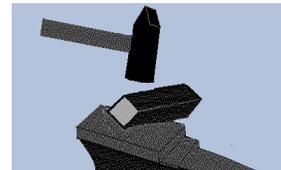


Figure 3. The steps for turning Square to Round.

Now hammer the rounded sides flat so that you have a good shaped octagon. then repeat the process and hammer the corners as before to make sixteen sides hammering smooth the rounded sides. Keep on repeating this process till your metal is as round as possible. As you are working on your metal remember to straighten your metal. It will tend to want to curve were you are hammering it.



Next, if you have a swage block you can match the rod up with the size round that you want and start hammering it lightly rounding of the bottom of the rod. If you have a top swage or a top and bottom swedge (the bottom swedge fitting in the hardy hole of your anvil), You can strike the top swage with the metal in-between and round both top and bottom at the same Now the rod should be ready for the probject you have in mind.

Figure 3. The steps for turning Square to Round.