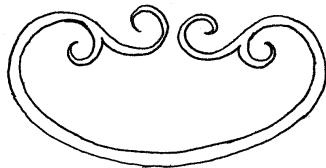


# Steve Williamson on Scrollwork

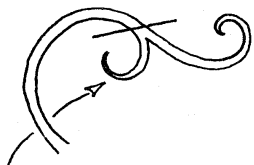
I recently applied for and got the Francis Whitaker Scholarship at John C Campbell Folk School for the two week class taught by Clay Spencer. In this class you must make a drawing of your project and submit it to Clay. Well, I wanted some practice making scrolls... and boy, did I get it!

The following is some of the things I learned about making branching scrolls. But before we get into

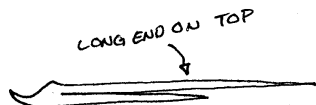
*In this article Steve describes the various processes and procedures required to make a C scroll with branching ends.*



Start with a full sized drawing of what the finished scroll will look like. You will have to determine the lengths of stock required for each element. This can be done using a piece of solder laid on the centerline of the scroll drawing. Clay showed me his way of determining which way each piece gets scarfed. He takes his drawing of the scroll and draws a line where the scarf will be.



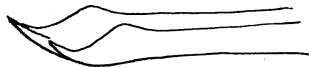
If this branch is shorter, the piece will look like this:



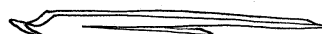
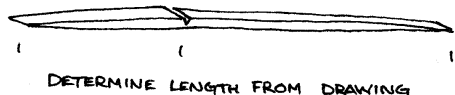
that... for those of you who hesitate to take this class because it says "advanced" and "you have to make a drawing", don't cheat yourself. Making the drawing and building the project from it teaches what can and cannot be done easily. Also the advanced part should not scare you because Clay is an excellent teacher and is more than willing to explain any question you might have.

You have to remember this when making the scarf for the other end of the scroll or you may end up with the short piece up on one end and down on the other.

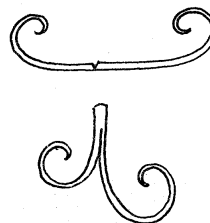
When making your scarfs, make the tip paper thin and turned up. This helps the two pieces stick together. By turning the tip up in the fire, it keeps the tip from burning and also from cooling too quickly when placed on the anvil.



Once you have determined the length of stock required, you can make the branching part of the scrolls. You can either scroll the pieces first and then weld, or you can taper the ends, weld, and then scroll.

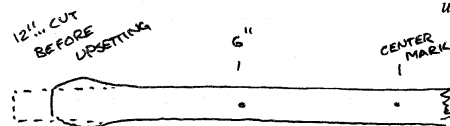


Taper the ends, cut halfway through and fold over. Apply flux and forge weld together. Or scroll the ends, then forge weld. Make the weld about an inch long.

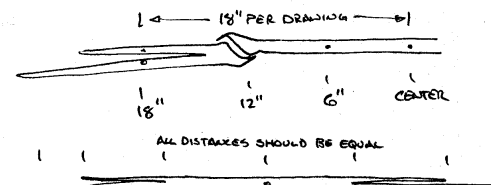


Now work on the c-shaped part of the element. Determine the length as before, using solder laid on the centerline of your drawing. After the length is determined, upset the stock to two times the original stock thickness (upset 3/4" on 3/8" stock, etc.)

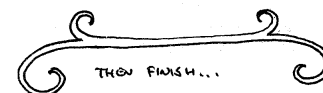
Make a test piece to determine what length of stock you'll need for this piece. It's difficult to calculate the stock length without a test piece, because the steel will compress when you upset it, then stretch a bit as you weld. The answer here is to use "witness marks". These are small centerpunch marks placed at some convenient distance along the length of the stock. In this case, we marked at 6" and 18" on the drawing. The 18" marks will be placed on the branching scrolls, and the other marks, center and 6" on the stock for the C shaped end. The stock for the main C was cut at 12".



Upset the end two times the thickness of the original stock. More is better than not enough. Forge a scarf for welding, and measure your work. If you're good, the distance between the witness marks will be 18". If you're like the rest of us, it won't. Not to worry... if you've left a little extra length at the other end of the bar, you can trim it to the length required.



AFTER FORGE WELDING, BOTH ENDS SHOULD LOOK LIKE THIS



One of the things that can really mess you up is overhammering the weld. This will at least leave an abrupt transition into the branching scroll, and at worst result in a thin spot, causing the scroll to bend unevenly.

