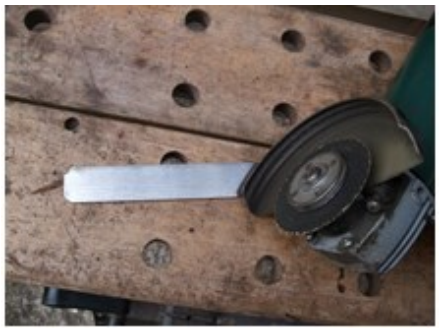
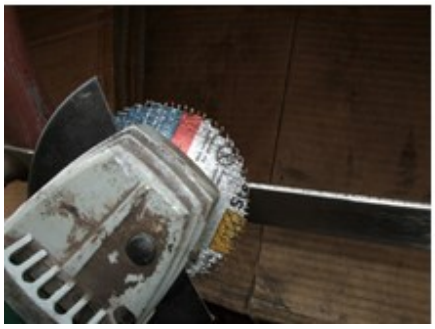
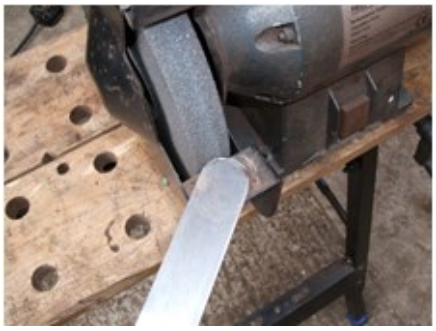
How to make a set of long swords.

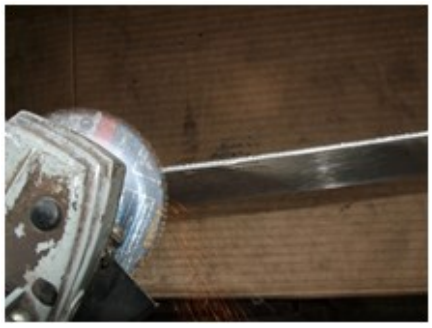
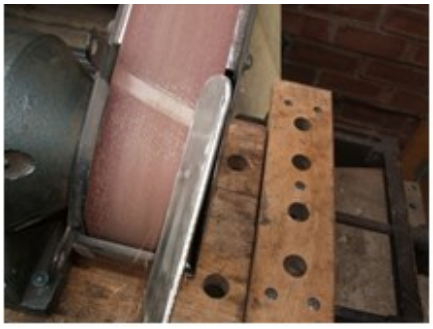
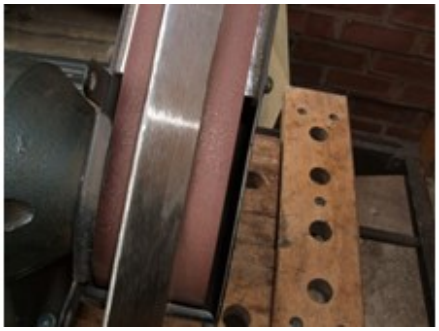
The first thing you have to do is buy some hardened and tempered spring steel from,

Holt Springs Limited.
Carsgoe Road.
Car Lane Industrial Estate.
Hoylake.
Wirral. Merseyside.
CH47 4FE.
phone number = 0151 632 5005.

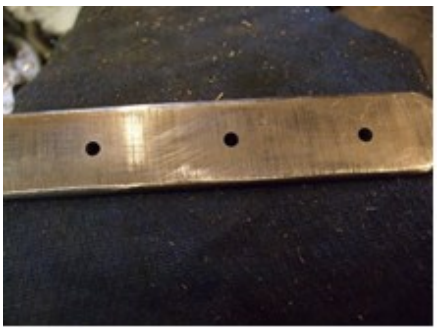
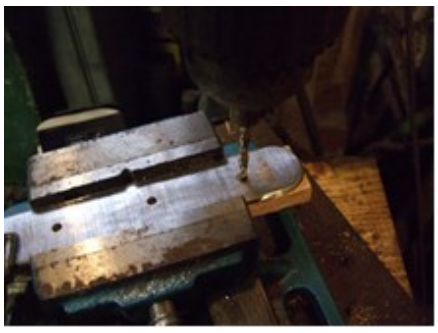
The Southport Swords use = 1/8" thick 1" wide 36" long Hardened and tempered spring steel. The steel will arrive as guillotined pieces with sharp edges all round.
The first thing I do is to cut a 45 degree angle off each corner, with a cutting disc in an angle grinder, to start the rounding of both ends of each sword.
Then I use a Grind Stone machine to round off the corners.

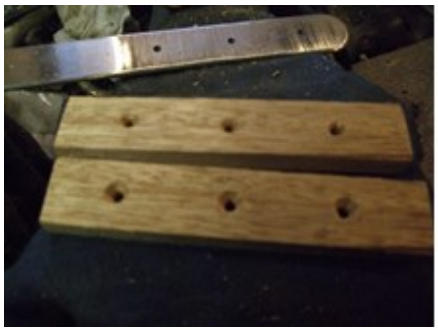
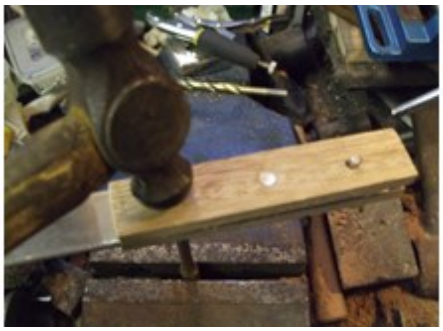
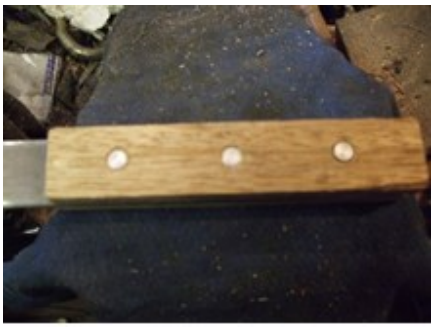
Then I use a Grinding disc, in the Angle Grinder to grind off the sharp corners from all around the sword. When I have a basic rounded edge all around the swords I then move to a Linisher machine or (belt sander) to complete the rounding of all the edges on each sword blade.

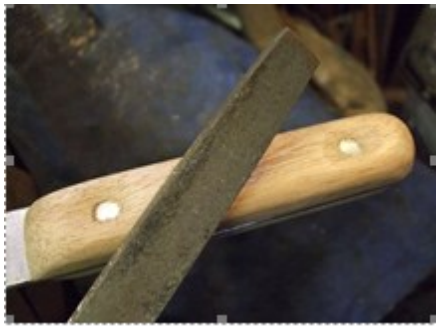
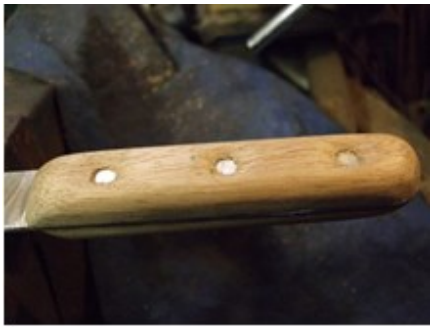
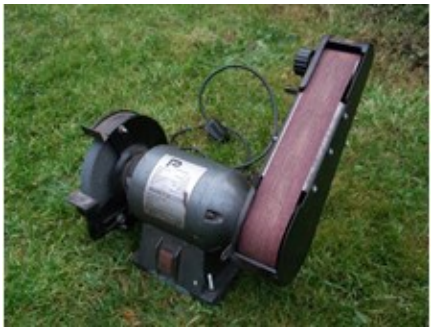
When all the edges are rounded off so the sword blade is finished. I then drill the holes in one end of the blades for the wooden handles. I have to use a Cobalt Drill because a normal High Speed Steel Drill will burn out trying to drill the hardened and tempered spring steel. I also have a piece of stainless steel that I have pre-drilled and I use this as a template so that all the holes in the blades are the same. When the holes have been drilled in the blades, I clamp the wood for the handle to the blade and drill through the holes in the blade to get the holes in the handles. Then I countersink the holes in the handles, for the rivet heads, and to rivet into.

When both handles have been drilled and countersunk assemble the handles to the blade, put the rivets in place, cut the rivets to the correct length to allow for riveting over into the countersink of the handle. When ready put a drift or round bar the size of the rivet head in the vice, and rivet the end of the aluminium rivet into the countersink of the handle with a ball pein hammer.

When the wooden handles have been riveted onto the blade, file the wood to the shape of a handle. I use a rasp to ruff out the shape and then finish the shape with a file. When you are happy with the shape of the handles use sand paper to get a nice smooth shape.

Tools required to complete the task.

1. A bench drill machine to be able to drill the holes.
2. A Grinding and Linishing Machine to shape the round ends of the swords, and remove sharp edges form the swords after rough grinding.
3. A small angle grinder with both cutting discs and grinding discs.
4. A hand vice to hold the blades and handles for drilling.
5. An engineers vice to hold the blades when working on the blades and riveting the handles.
6. A saw to cut things to length.
7. A ball pein hammer. To hammer the rivet ends into the countersunk holes.
8. Mole grips or vice grips to hold the handles to the blades when drilling holes.
9. A file and wood rasp for shaping handles.
10. A Cobalt drill the size of the rivets you will use. To drill the hardened and tempered steel.
11. A normal drill to drill the handles.
12. A countersink drill to countersink handles.
13. Countersunk aluminium rivets.
14. A drift or round bar the diameter of the rivet head. To clamp in the vice to support the rivets whilst riveting the end of the rivet to form the countersunk end of the rivets.
15. Sand paper for sanding the handles to smooth finish.