

## MEDIEVAL BLACKSMITH'S FIELD FORGE

There is no known illustration of a medieval blacksmith's field forge though it is certainly a piece of equipment that would have been used on campaigns in that period in the same way they were used in the 1914 - 1918 war for shoeing horses, repairing or straightening pieces of damaged equipment or forging new parts that were lost.

With this in mind I set about constructing a portable forge using the materials and techniques available in that period. In the medieval period it was standard practice to use as little iron as possible in construction as it was still an expensive material compared to wood or stone. The fact that the forge was to be portable meant that it had to be as light as possible so the obvious choice for the main components was wood. I chose Elm for the box, the bellows boards and the bellows bench as it is a wood that does not readily burn but smoulders slowly. It is the preferred wood for anvil blocks for this very reason. The legs I made from oak to carry the weight of the main body of the forge. The back board where the tue iron enters the hearth was lined with a sheet of wrought iron as was the base of the hearth at the end of the tue iron where the fire would be sited. All the components were nailed together using hand forged wrought iron nails. The hearth was lined with a mix of clay, sand and charcoal dust and the tue iron was built up of the same mix covering the wrought iron blast pipe from the bellows. The end of the tue iron is built up as and when necessary after use by inserting a tapered wooden plug into the existing hole and then building up the end with a new clay mix.

The bellows are standard single acting pear shaped bellows constructed in the traditional manner from Elm boards, steamed Ash spacers, leather valves and natural tanned goat leather. On the top board of the bellows is nailed a lead weight to ensure the bellows give sufficient blast to the fire for normal working. The shape of the weight and the method of nailing it to the board is illustrated in a medieval manuscript showing a smith working in his forge.

For transportation the legs are removed as is the bellows handle and its support column so that the whole unit packs down flat. The main body of the forge can be carried by one man but it is easier to move and assemble using two people.

It is possible to forge small items on this hearth. The most ambitious project was the forging of a small bloom of iron into a knife blade. The hearth has been in use since 1992 and has been used mainly for forging arrowheads and small knife blades.

Hector Cole. F.W.C.B.  
March 2003