

## THE MEDIEVAL FIRE ARROW

The fire arrow has been about for as long as man has been shooting the bow though there is no archaeological evidence of this taking place in the Stone Age. However I would say that it is pretty certain that early man would have wrapped some combustible material round an arrow shaft, lit it and shot it just for the sheer delight of seeing the flame arc through the night sky.

It is well recorded that they were used for setting fire to ships sails and rigging and being shot into towns and cities to set fire to buildings in times of war. Forged cage fire arrowheads have been found dating back to the Roman period. They were regularly used throughout the medieval period up until the present day, one being used to light the Olympic torch at the Barcelona Olympics.

I forge two types of fire arrowheads, the cage type with either three or four strand cage and the famous Alnwick fire arrowhead that is a long flat socketed head with a barbed point.

The question I get asked most when people buy these heads is "what do you put on them to create the fire?" To this end I thought I would write down the few receipts that I have in my records. I have not tried any of them out myself but have it on good authority that with a little practice they all work well with some quite spectacular results so be warned!

### 1) Cage fire arrow:-

The head of this fire arrow is packed tight with 'Tow' that has been soaked in tallow (mutton fat). Tow is fine strands of Hemp that look like brown sheep's wool after it has been combed ready for spinning. It was used by plumbers along with Boss White paste when making water tight joints using threaded components. The Tow is lit just before firing making sure that it is well alight or it will go out when the arrow leaves the bow. It glows incandescent as it flies through the air and when it hits it creates a fire ball of exploding burning tallow.

### 2) Barbed fire arrow:-

Receipt 1:- This is from a friend in Germany. It is in two parts and is very similar to the Alnwick fire arrow receipt.

Outer layer:-

88%S, 10.4%KaN03, 1.6%C

Inner powder:-

73.7%S, 83.5%KaN03, 2.8%C

Make a small line bag that is tied onto the arrowhead at one end and fill it with the inner powder. Then tie the other end onto the head also. Next put the Outer layer mix in an old can and heat it until it melts. Warning?? do this outside as it smells something shocking. This mix is then applied to the line bag and allowed to dry.

To use, light the outer layer and wait until the inner layer starts to burn and then shoot the arrow.

## Receipt 2:-

Inner layer is the same as No. 1

### Outer layer:-

Pitch four parts, linseed oil one part, turpentine half part, sulphur one part, tar one third part, tallow one part. This mix is melted and the bag coated as before remembering the smell. When cold bore two holes in the bag, fill with fine gun powder and put a small peg in each hole. When ready for shooting the pegs are taken out before lighting

This is the receipt for the **Alnwick** fire arrow. This mixture comes from "The Complete Soldier" by Thomas Smith 1628.

Powder bruised, two parts.

(Salt) peter (petre) in Roche (rock, or crystalline form) one part.

Peter (petre) in Meele (?) one part.

Sulphur in meelee two parts.

Rozin roche (chrystals), three parts.

Turpentine, one part.

Linseed oyle, one part.

Verdegrease, 1/3<sup>rd</sup> part.

Bole armoniacke 1/3<sup>rd</sup> part. (an astringent earth from Armenia)

Bay (salt), 1/3<sup>rd</sup> part. (Evaporated salt from the Bay of Biscay).

Colophonia 1/6<sup>th</sup> part. (Greek pitch formed from distillation of Turpentine in water).

"And if you think good, you may put thereto of Arsnick 1/8<sup>th</sup> part; then coate the same over with this liquid mixture molten in a pan or coating pot (to wit)

Pitch, foure parts.

Linseed oyle one part.

Turpentine ½ part.

Sulphur one part.

Tarre 1/3<sup>rd</sup> part.

Tallow one part.

And as soone as this is cold, bore two holes in each of the same an inch deepe, with a sharpe iron or bodkin, filling the same with fine bruised powder, putting in everie hole a little sticke of two or three inches length, which are to be taken out when you would fire the same. This composition will burn furiously."

The words in brackets are the modern interpretations.

My thanks to Hugh Soar for his help in getting the Alnwick receipt.

Good shooting and don't burn your fingers, bow or anything else that you don't intend burning!!!!

Hector Cole.

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