

Mayfield Gunfoundry

Article by Tim Cornish, reproduced with his kind permission

In 1567 Thomas Gresham moved from Antwerp, where he had been the Royal Agent, raising money and buying arms for the Crown. The revolt of the Dutch Calvinists against their Spanish masters destroyed the international arms market and gave Gresham the opportunity to become an arms producer when he took possession of the Old Palace estate in Mayfield. Using local iron ore, charcoal and water power, he established a blast furnace in Vicarage Wood in Mayfield. Gangs of labourers with shovels built massive dams, cut channels to manage the water and built the furnace, water wheel, bellows and pits for casting the guns.

At the same time, gun foundries were set up in Wadhurst, Jarvis Brook, Eridge and Cowden, (possibly at Gresham's instigation) all making cast iron cannon for the international market. One hundred whole culverins (huge naval cannons about 10 foot long, weighing two tons and firing an 18lb shot) were made for the King of Denmark and the Dutch bought many to use against the Spanish. Cast iron guns were twelve times cheaper than their bronze equivalents. Gresham's guns had a reputation: fitter to kill the user than the enemy was one verdict.

On Gresham's death in 1579, control of the foundry passed to the Neville family. In 1584, on his marriage, Henry Neville moved to Mayfield to continue the business. By 1592, working in a syndicate with one of the Sackville family and with two foreign partners (from Germany and Holland) he gained the Royal Patent or monopoly for the export of cast iron guns from Queen Elizabeth. So, for a period of thirty years, the Mayfield Furnace was one of the main gun producing centres in Europe. Mayfield guns have been found in Nevis in the West Indies, in Zwolle in Holland and in a wreck in the mud of the

Thames Estuary (the latter now in Fort Nelson in Portsmouth).



Mayfield cannon in the High Street

The gun in the High Street is a small version of what Mayfield once produced. By 1610, gun production was phased out and cast iron was produced for the forge. The whole operation closed down early in the eighteenth century.

If you stand on the bridge over the Little Rather stream, upstream you will see the earthworks of the dam or pond bay. This structure was repeated in two more dams further up stream and one in a side stream. Substantial amounts of water were necessary to drive the bellows for months on end. The Furnace was built over the stream (the structure destroyed by the building of the bridge) perhaps four metres square, and four metres high. The Furnace (stone-built and lined with brick and clay) was fed with locally-dug iron ore and locally-made charcoal, tipped down the chimney from a ramp leading off the top of the dam. The wooden water wheel, perhaps four metres high, was fed by an oak trough, part of which, remarkably, still exists in the pond below you (downstream) which is at least three hundred years old. The Furnace was probably blasted by a pair of bellows, each revolution of the wheel delivering three blasts from each pair. Once sufficient molten iron was contained in the furnace bottom, the iron was tapped out into gun pits, dug up to 4 metres vertically into the ground below and lined with a clay mould.

The Furnace would operate continuously, day and night for months, until the water supply ran dry or the Furnace lining

collapsed. Other products included fire-backs; made in sand moulds with a pattern pressed from a wooden design or cast iron pigs or sows for later use in a forge where the brittle cast iron was hammered into a workable form.

Once the Furnace went out, the residue left in the Furnace bottom, comprising half burnt iron ore, charcoal and clay was called a "bear". The rectangular slab below you on the far edge of the pond (downstream) is the remains of one such "bear". The surrounding area is marked by extensive quantities of glassy black slag, for every ton of iron produced three tons of this waste material which was used in roadbuilding. The woods on your right-hand side, looking downstream, contain evidence of the storage of considerable quantities of charcoal, which blackened the earth. The site is designated a Scheduled Ancient Monument under the protection of English Heritage.