

The British Engineering Works of Mr William Whitmore

Milling journals of the past at The Mills Archive

by Mildred Cookson, The Mills Archive, UK

This well-established British Engineering Works featured in 'The Miller' of November 2, 1885. Continuing their series of visits to the firms principally involved in the manufacture of flour milling machinery, they reported on the ironworks at Wickham Market. The site benefitted from its closeness to the then Great Eastern Railway, with a telegraph office close by. It was also then, among the oldest established engineering and millwrighting workshops of England. The Wickham Market Ironworks were already more than 100 years old, having been founded in 1780 by the Grandfather of the senior partner running the firm in 1885, William Whitmore.

William, after serving an apprenticeship in mechanical engineering with a firm in Lincolnshire, was taken into partnership by his father. At that time the firm had started to manufacture steam engines and boilers and had installed them in the Chelmsford and Barking steam mill of Messrs Ridley as well as in the Isle of Thanet steam flourmills. In 1862, Mr John Whitmore senior retired and William succeeded him along with John Whitmore Junior.

Mr George Binyon became a member of the firm around 1868, and after working in Wickham Market for ten years, took up offices at 28 Mark Lane, London. This proved a good move as it placed the firm at the centre of the milling trade, enabling them to deal with foreign expansion of the firm, in which they supplied their stone mills, bolting chests and other machinery in which they specialised.

In January 1871, the company was approached by Mr Seth Taylor to fit up his flourmill at Waterloo Bridge, which would require 30 pairs of stones. In 1874 Mr Peter Mumford of Vauxhall flourmill made a similar request involving 24 pairs of stones. In 1890 Mr Taylor again requested the firm to fit out St Saviour's Mills at Dockhead with 20 pairs of stones. All these mills were also fitted out with their patent belt-driven hursts. Many other mills would also be fitted with Whitmore & Binyon machinery, for example: Messrs Marriage at Chelmsford, Messrs Press Brother's; City Flour Mills Lincoln, Town Mills Melksham Wiltshire and Mr Jonathan Mess's mills in Aberdeen.

On the night of December 20, 1880, a fire broke out in a shed at the back of the works. This caused £2000 (US\$2491) worth of damage and the loss of several sheds and workshops. The fire raged on for six hours, and the whole premises would have been destroyed but for an inexhaustible water supply from an artesian well on the spot. Work continued thanks to the fact that local firms offered help and their workshops to Mr Whitmore to keep his business going.

'The Miller's' description in 1885, mentioned offices on the right of the main entrance and the manager's house on the left in the foundry, raw materials went through preparatory stages, with the iron being fed into the cupolas in the usual manner. The blast was obtained from a huge fan outside the building, which was conducted to the two cupolas by a conduit pipe passing under the fitting shop. The workshops featured an ingenious moulding machine used for making the moulds for bevel and spur cogwheels. This saved the labour of making a new pattern for each cogwheel. On leaving the foundry the castings went to the fettling shop.

The pattern shop was a loft and spacious building full of lathes, drills, planers, shapers, a screwing machine etc. It was described as a forest of patterns from beloved wheels of any diameter up to six foot and millstone hursts and countless rows of teeth patterns. Here parts of the roller mills and other flour milling machinery were turned and fitted. There was a planning machine of special construction for working upon roller mill frames. Also of note was a novel wheat-cleaning machine, consisting of a circular brush and a Cologne stone, working parallel to one another on a vertical axis, similar to a pair of millstones. The runner stone revolved at around 360rpm and was adjustable, while the brush, the surface of which formed a disc, was stationary. The bristles of the brush swept over the entire face of the stone that was dressed with furrows. The grain was fed into a hopper placed in the centre of the brush and passing to the stone makes its way between the bristles and the surface of the revolving stone to the circumference or skirt of the millstone where it discharged; the dust particles were aspirated by an exhaust fan.

Space at the end of the turnery was occupied by the erecting shop where single and double rollers, as well as millstone hurst frames with stones and spindles, were worked on. Stone mills certainly featured as one of the firm's main export trades, reaching as far as South Africa where over nine of these mills had already been sent to the same satisfied customer.

The brass foundry dealt with every species of brass and bronze required for millstone bearings, centrifugal and purifier bearings and others. A well arranged tool store was sited at the end of this workshop alongside the foreman's office. Next to this were the millwrights' shops for the manufacture of purifiers and centrifugals, wheat aspirating machines and bolting chests. Behind the workshop was the timber yard

holding wood in every stage of seasoning, including large quantities of appletree and hornbeam used for cog work. Finally there was a paint shop where the various machines were carefully cleaned and painted and ready for dispatch.

By 1885, the drawing offices of the firm usually had around 200 men working there. The firm exhibited at the usual exhibitions and their exhibits were described as “very credible”. In the exhibiting of 1862, for which they received a medal, they featured their special belt-driven stones allowing delivery of the meal around the entire peripheries of the stones.

Apart from our journals, the Mills Archive catalogue (catalogue.miilsarchive.org) holds many archival images from the early days of the firm including for example formal photographs of groups of workers. The geographical and historical spread of our holdings at the Mills Archive mean that I can only provide snapshots; if you would like to know more, please email me at mills@miilsarchive.org.

Machinists at Whitmore and Binyon

Whitmore and Binyon's 6-reel bolting chest

The Wickham Market workshops

The patent millstone hurst frame and bolting chest

Whitmore and Binyon's exhaust apparatus

Whitmore and Binyon's flour dressing machine

Mr WN Whitmore

Mr George Binyon