

Burham Brick, Pottery, and Cement Company

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The making of bricks is a most ancient trade, dating from the days of Babylon and the Pharaohs; but it is only of quite late years that machinery has been successfully brought to aid in the manufacture of these most essential articles.

The large building operations of some of our modern contractors who have within the last few years transformed what were suburban fields into a new metropolis, have caused such demand for bricks, that the attention of engineers and machinists has been directed to the perfecting, as much as possible, the appliances for their rapid manufacture, and the giant slave of the nineteenth century - steam - has been pressed into the service.

Pre-eminent among those who have aided in the rapid and extensive increase of London and its suburbs, stands the name of the late Thomas Cubitt, Esq., who, like a modern magician, raised on the fields of Pimlico the splendid palaces of Belgravia.

To enable him to carry on those large operations, he was compelled to render himself free and independent of the precarious supply of materials afforded by to the general market, and to enable him to do so, as well as to ensure good quality and unlimited supply, he established several brickfields of his own. Most of these were mere temporary affairs, to work up the material that presented itself on the ground he was then building on; but for the high-class work of Belgravia, it was necessary to have a superior article. After much search, a field of the celebrated Gault clay was purchased by him at Burham, near Aylesford, on the River Medway, between Maidstone and Rochester; and on this ground, some eight-five acres in extent, were erected by Mr. Cubitt, at an enormous cost, the most complete brick, tile, drain-pipe, cement and pottery works in the kingdom. Since that gentleman's death, and the completion of his Pimlico operations, the works have been offered by his executors for sale, but so gigantic are they, that no one firm have been able to grapple with them, and a company is now formed, under the name of the Burham Brick, Pottery, and Cement Company, to purchase work the property under the Limited Liability Joint Stock Act.

A gentleman, who a few days since visited the work, gives the following account of his journey:-

"Our party left London by the 10.15 A.M. North Kent train, and arrived at Snodland in two hours. On the journey we passed many Brick-fields of various extent, and after passing Strood they become more frequent, but after passing Strood they become more frequent, but in none of them did we see more than is ordinarily to be seen in such places. After passing Cuxton, the Wouldham and other Cement Works were pointed out to us on the banks of the Medway, and immediately after, long before our arrival at Snodland, we saw the large pottery and engine-house of Burham with its immense square shaft rising up in the valley, and reminding us very forcibly of the large building on the banks of the Thames at Pimlico, so well known as Cubitt's workshops, and now in the occupation of the Government. On alighting at Snodland, we crossed the Medway in a ferry-boat, and after a walk through the fields of about a mile past the old church of Burham, we arrived at the works. The first objects of interest that attracted our notice were numberless rows of little sheds, under which the bricks are dried, and which are termed hack grounds. These little sheds, about 6 feet high by 3½ feet broad, cover upwards of seventeen acres of ground, and are situate between the brick machines and the kilns, and are intersected with lines of tramways. The whole estate is on a slope, falling gradually about one in eight-five towards the wharf on the river, which fact considerably facilitates the economical working, as all the heavy material goes down hill, and in no case does any material or article have to travel on the same ground twice. At the top of the hill the clay is now dug, and is crushed and washed on the spot. The manager of the works, Mr. W. Varney, who was upwards of forty

years in Mr. Cubitt's employ and latterly one of his confidential agents, informed us that he had in the first instance selected the estate for Mr. Cubitt, and that the whole of the vast works had been erected and developed under his own immediate and residential superintendence. The clay is about 130 feet thick, and will last for a century to come. After being washed and crushed, the clay is conveyed in waggons on tram-roads to the pugging mills and machines, where, after going through a very simple process of squeezing, squashing and pressing, it issues forth from the various machines through the dies, in the shape of bricks, either solid or hollow, and tiles of all sorts, sizes, and shapes. These are generated, so to speak, by the machines, with a most wonderful rapidity, and conveyed by boys off the machines on to barrows, in which men wheel them into the drying hacks, under which they are stored to dry, previous to being stacked in the kilns for burning. All the brick machines are worked by one long shaft 520 feet long, which receives its motion from the large engine of 220 horse power. This engine we found to be an old friend, being the one formerly worked at the Minories Station, the wind up the endless rope on the Blackwall Railway, when the trains on the line were propelled the the well-known wire rope. This engine, which is by Maudsley and Field, does nearly all the work of the place - pumping water, crushing clay, flint stones, etc., working the pug mills, and all the brick, tile and drain-pipe machines.

"The latter articles are all made in the large building forming part of the engine-house. There are four floors, 400 feet long, on all of which drain-pipes, ornamental flower and chimney pots, tiles, etc., are made and dried, the heat from the boilers and the pottery kilns being turned off from waste into various pipes and chambers for heating the rooms, and so drying those goods that are not suitable for out-door drying in the hacks, previous to burning in the kilns. The numbers of moulds and wooden frames to receive the several articles when first formed, and when the clay is still plastic, and liable to damage by handling, is really surprising. To give some idea, there was one pile of a particular pattern for hollow tiles, of which Mr. Varney informed us there were in stock 80,000. The more elaborate articles made in this building are burnt in the kilns in the building, but the stronger and coarser goods are burnt in the out-door kilns with the bricks, and from each floor is a tram-road, down an incline for waggons, leading direct from the pottery-house, with the goods when dry, to the kiln where they are burnt, and the manufacture is so arranged that the heavy goods are made on the lower, and the lighter on the upper floors, so that in loading (as it is termed) a kiln with dried goods for burning, the heavy and stronger articles are at hand for the lower portion, and the more fragile goods for the upper tiers. After being burnt, the goods then ready for market and use are drawn out of the kiln on the opposite side to where they were loaded, and are placed on trucks on the line of rails immediately contiguous to the kiln doors, and are thence conveyed down the gentle incline of about one in eight-five, either to the wharf to be at once loaded into barges and sent away, or to be stacked on the stock ground to await purchasers. With the single exception of the coal which is conveyed from the wharf to the kilns and engine-house, there is now up-hill traffic, and even this is considerably assisted by the down pull of the loaded waggons, which, also, as they go down to the wharf, help up the empty waggons back to the kiln. Thus much horse-labour is done away with, and instead of a large stud, only a very few are requisite to do the work. Some idea of the completeness of these carrying arrangements may be arrived at by the knowledge that there are upwards of three miles of tram and railroad on the works, with numberless turn-tables, weighbridges, etc. Nothing here is wasted; all the broken bricks, drain-pipes, and even what few stones there are in the clay, are ground up to powder in a powerful mill worked by the large engine; and, on being mixed up with the clay, form a material out of which some superior quality of goods are manufactured.

"A never-failing supply of water is obtained from the river, which feeds a reservoir of some three acres in extent; and at the wharf, which is the most substantial description, and stone-faced, some six barges may be loaded at once. At high tide there are fourteen feet of water at the wharf.

"Adjoining the wharf are the cement works, consisting of engine and house, washing mills, some four kilns, with accompanying drying stoves and nine coking ovens.

"Nothing strikes a visitor to these works more than the substantial character of every thing on the estate. All is of the most solid construction, perfectly unlike any other brick works we ever visited. In most cases a few boards roofed in with tiles, forming a tumble-down-looking shed, forms all the building one sees, except the huge square masses of burning bricks called clamps. At Burham every thing is made as if to last for ever - all is *cubittian* in its appearance, and every thing is burnt in kilns of the most approved construction.

"In addition to the large engine – our old Blackwall Railway friend - there are three others, of various power, and all the necessary workshops, with mess-room for the men, foremen's cottages, etc., are in their places.

"Near the top of the hill is a most substantial house, indeed quite a mansion, which overlooks the works. This is the residence of the manager, Mr. Varney; and on viewing the whole field, with its various and numerous engines, buildings, tramways, kilns, wharves, etc., one cannot but see that here are what may be justly termed the model brick works. Here are concentrated the results of near half a century's experience and improvements. Every thing is in the right place. Nothing superfluous. Every possible attention has been given to economise labour and material, and every advantage taken of the natural position of the estate. When in full work, between 600 and 700 men and boys are employed, and from 25,000,000 to 30,000,000 of bricks, besides tiles and pipes, can readily be turned out from the present works, which, however, can be considerably augmented without any great outlay or increasing the present steam power."

There can be no doubt, judging from the above account, that the Burham Brick Works are not only the most extensive, but the most complete in the kingdom; and will produce the most satisfactory and advantageous results to all investing their money in the undertaking. Few things have lately appeared in the form of public companies that have more real substantial foundation, or offer more *bona fidé* prospects of good and punctually paid dividends to the shareholders, than the Burham Brick Company. We hear that the subscription list is fast filling up, and that notice will soon be issued of its being closed.

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