

WASC 2327

Record of
Explosion at

Hounslow Paper
Mills

A lost generation at Hounslow Gunpowder Mills

The gunpowder mills on the R Crane at Bedfont were established in the 17th c; in 1757 responding to the demand for gunpowder in the seven years war a manufactory was developed further downstream- in the parish of Twickenham, but always known as Hounslow Powdermills. In the 1820's it was owned by Curtis and Harvey, who also acquired the Bedfont works in 1833. In the 19th century it was the most important local employer, with over 300 workers, drawn from all the surrounding communities. The works extended over 100 acres, with the complex production process passing through a succession of 'houses', widely separated to minimise the impact of explosions- Nearly 100 workers died in explosions in these 'danger' house in the century to 1875. Workshops where constituent materials were prepared; where services such as cooperage, tailoring, tin making and carpentry were undertaken, and packing sheds (employing women) were regarded as safe, but still subject to a stringent safety regime

Generations of families worked at the mills. Ernest Alderman, writing about his first days working there in 1920 as a 14 year old leaving school was following his grandfather, with nearly 40 years service, his father an engine driver, probably looking after one of the three large stationary steam engines that each provided power for six incorporating mills, and his mother who had also been a packer there.

He had to start at 6 am, and leave at the entrance lodge any matches and tobacco. His first job was to collect water and clear up the wash house. Next he had to get the men's dinners from the cupboards in the tower and warm them in an oven'

He was shown how to harness and look after horses,- and after a month became a cart boy transporting powder around the mills,- and was taken to all the danger houses and instructed on the many essential safety precautions,

The learning process with its emphasis on safety, necessary for new young workers at the mills, would have changed little over the years.- except of course that in the 19th century boys at the mills could be even younger The story of another worker who started at the mills as a young boy half a century earlier, in 1869, was found by Mike Day, a genealogist,- and fellow member of the R Crane friends group- in the Willesden Chronicle for February 7th 1943. This was a short article about the life of Richard John Hurst who had died in Hounslow in his 85th year. More information on his 57 years of service at the mills was reported in the Middlesex Chronicle of 29th May 1926.

Richard's father, grandfather and elder sister all worked at the mills and he started aged 12 making tins in the Japan shop at 6s a week. His first years at the mills were traumatic because of several tragic accidents that claimed the lives of many of his friends

On June 17th 1869 three men and a boy died after an explosion in the upper glazing house. The flash from the explosion traversed 150m over the surface of the mill pond and ignited powder in an underground store. The men- Samuel Gardiner, 31 from Hounslow, Richard Pulham 57 from Feltham and William Penfold, 40 from Hanworth were standing nearby the store, next to an engine house powering a line of incorporating mills, all of which were demolished. 15 year old Albert George Holloway who lived in Hounslow was passing on horseback and was blown a considerable distance and killed. The explosion breached the mill pond embankment wall, draining the pond and flooding the lower part of the works. The clock face located on the factory tower was shattered, the hands stopping at ten minutes to four. (This building, now known as the 'shot' tower-without a clock!- remains on site as the visitor centre for Crane Park, with its Gunpowder history and nature reserve managed by London Wildlife Trust)

Three years later, on September 6th 1872, four more boys died in a double explosion when powder was being moved from a mixing house onto a punt to be taken to the next stage of the process. George Cobb, 28, in charge of the boat also died. One of the boys, James Cooper, 17, was looking after the horse and cart being used to carry the barrels from the mixing house to the platform next to the boat. James had not worked long at the mills- in the 1871 census he is to be found working as an ostler at the Old Crown, Church St, Kingston

Frederick Lynch, also 17, who died in the mixing house, had been at the mills for an even shorter time. In 1871 he was the toll keeper's assistant and living at the Tollgate House at the Bell Rd gate in Hounslow, and would have started at the mills just three months before the explosion, in June 1872, when tolls were abolished and the gates removed. One report suggested that Frederick had just arrived at the mixing house bringing flagons of water. Two other boys who also died in the mixing house; William Palmer aged 15 from Feltham and Stephen May, 16,- who lived with his family next door to George Cobb in Hounslow- were certainly employed there.

At the inquest the thoroughness of the searching of workers was questioned, and suggestions were made that the explosions were caused by a boy lighting a cigarette in an idle moment. The jury could not determine how the explosion was caused, but added a rider that there should be greater care in searching workers

Although the lack of experience of the boys was not raised, their maturity appears to have been questioned. Probably in answer to Captain Smith (The Government gunpowder mills Inspector) Edward Goddard, called as a witness, said that he was in a weighing room close by, preparing materials for mixing and was blown into the water; He 'never left the boys for more than a quarter of an hour at a time. They were 'well conducted seldom being seen laughing or 'giggling about'. But like all boys of that age when friends arrived they would be diverted, and attention to the strict demands of safety could be forgotten

The Times newspaper took up this concern, doubting whether 'at any age boys can be trusted to be as careful as such work requires', and suggesting that the public will 'feel wonder at hearing that boys are employed in so dangerous a place as the mixing house of a powder mill'- in which 'a single act of foolhardiness may involve a whole neighbourhood in disaster'.

100 years earlier Horace Walpole had expressed a similar concern for nearby property as his stained glass windows, and those of his neighbours, were blown in. Over the years however there was also concern for the work force, both in the national press and at inquests, in particular that into the 1859 explosion -with Thomas Wakley as Coroner- and these contrasting responses deserve examination in a later article

The rebuilt Mixing House was the scene of another tragic accident two years later on 3rd November 1874. Eight mixed charges were about to be taken on to the incorporating mills. One charge caught fire and the rest instantly ignited; there was no escape from the flames and fumes for the four men in the mill who were suffocated and roasted. The new building had been lined with wood to limit danger from grit, and this increased the force of the fire.

The four who died were young men of a similar age to Richard Hurst; Stephen Butler 18 and John Day 22 from Feltham; William Henry Archer 20 and George Todd 22 from Hounslow. The leading man, named as William Goddard, but possibly the same man who was a witness to the earlier incident, was outside starting to load the cart; Josiah Chapman aged 17 stood between him and the Mixing House door. When the fire started both ran to the nearby river and jumped in, William Goddard was seen to be burnt about the legs; Josiah was more severely burnt and died from the effects of his injuries on 9th November.

Richard Hurst was 17 in 1874 and would have seen or been aware of the deaths of 9 friends and colleagues similar in age or slightly older- but he stayed with the firm for 52 years more, putting in many long shifts during the 1st world war

The Inquests into the deaths in 1874 were less thorough than that of 1872. An adjournment to enable a Government Inspector to attend was ruled unnecessary by Coroner Thomas Diplock. A juror asked if it would not be better to employ older and more experienced hands on such a dangerous occupation, and Joseph Brown the manager of the works responded ' No, quite the contrary, they were engaged in the least dangerous process there is in the manufacture of gunpowder'

At the second inquest into the death of Josiah Chapman the manager fended off a juryman's comment that explosions took place at the Hounslow mills more often than anywhere else by saying that they were quite as frequent at other mills but being near London more notice was taken of the occurrences

The latter was probably true; it was the proximity not just to London, but also to the arcadian residential environments of Twickenham and Richmond, that prompted press

commentary; nevertheless, analysis of the available statistics suggests that explosions causing fatalities were more frequent at the Hounslow mills than at Waltham Abbey, Faversham, or Dartford – though fatalities elsewhere in some explosions had been greater, including the 21 who died during early guncotton manufacture at Faversham, amongst them 5 women.

Although mixing houses may have been safer than the mills undertaking pressing or corning, contrary to Joseph Brown's assurance it was also a dangerous process. In mixing house explosions 2 had died at Gatebeck, Cumberland in 1859; 4 at Faversham in 1867; one at the same place in 1872. Just as relevant was the mixing house explosion at Hounslow in April 1857. A blue flame light was seen flickering, and knowing at once what would happen amongst so much combustible material the instant cry of 'fire' was raised and then 'run for your lives'. Three workers were quick enough to run out and reach safety; two others were injured by the blast and debris. Significantly the hands were described as 'youths' and 'lads', suggesting that it had long been the practise to employ younger workers on this process.

There were to be later mixing house fatalities elsewhere, notably 5 dying at Faversham in 1906, but at Hounslow 1874 saw the last of the explosions with multiple deaths; until closure over 50 years later in 1926, only two older men were to die in explosions, one in each of the glazing houses, and one man in a fire.

There had been legislation in 1860 to increase safety in making, transporting and storing gunpowder and other explosives, but despite being added to piecemeal, control and enforcement were lacking. Major Majendie was appointed Chief Inspector of Explosives at the Home Office in 1871 and with his team undertook a systematic examination of working practices in the industry, noting the many violations of the law and making many recommendations to factory managers for safety improvements. As he reported to the parliamentary select committee in 1874, all too often their advice was ignored, one factory failing to take notice of 10 separate safety improvement recommendations. The committee heard from Mr Curtis as a major factory owner; He - -and other owners- - was supportive of tougher legislation with enforcement powers but wanted it to be reasonable in its impact on the better run works. In October 1874 the explosion of gunpowder in a barge on the Regents Canal resulted in the deaths of only the crew but caused havoc and panic, destroying a house and damaging much other property, including the Zoo. A detachment of Horse Guards was called out to maintain order and to provide safety from wild animals

The minds of Members of Parliament became suitably focussed on the dangers of gunpowder and the Explosives Act was passed the following year in 1875, requiring the licensing of factories and storage, regular inspections, and including enforcement provisions. Curtis and Harvey adopted a stringent code of practice the following year, when the Hounslow works gained its 'Continuing Certificate'. There were still many explosions, principally in the unattended mills where the powder was 'incorporated'; In fact Hounslow and Glyn Neath, Wales, also owned by Curtis and Harvey, had

significantly the worst records with averages of one explosion a year; But as I have described fatalities were rare and no more young lives were lost.

C J Hern 2012