


A history of pin making in Kingswood. Kingswood was an important manufacturing area even before the building of Warmley brass-works.

# NOT WORTH A PIN:



PIN MAKING  
IN THE  
KINGSWOOD AREA



**DOREEN STREET**

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# INTRODUCTION

Few people are aware that from the 17th to the 19th centuries pin making was an important industry in the Gloucester and Bristol area. "A multitude of the poor population" earned subsistence wages in small workshops or in their homes. In the Kingswood District the industry began on a large scale at Warmley in the middle of the 18th century.

## EARLY PIN MAKERS



The earliest pins were made of bone, copper, bronze and iron; from time to time these are found when ancient sites are excavated. The invention of brass pin-wire is claimed by the Dutch, French and the Germans. In the reign of Queen Elizabeth I brass pins were introduced into this country. They were expensive and therefore a great luxury, only used by women of wealthy families for decorative purposes. It was the custom for gentlemen to give money to the ladies of their household with which to buy pins. This then came to be called "pin money" and applied also to money spent on other luxuries.

The success of pin making in Gloucestershire and Bristol was due to three factors — water transportation, an available workforce and the presence of the brass works which supplied the brass wire from which the pins were made. The development of the pin industry was closely connected to the growth of the brass industry in the Bristol area.



## HOW PINS WERE MADE



CLEANING

Before the introduction of machinery in the 1830's, pin making was a long and involved process. In the 18th century the largest production of pins was at William Champion's works at Warmley which produced zinc spelter, copper and brass.



ROUNDING THE EDGES



CUTTING OUT BLANKS



BURNISHING

At Warmley the wire was drawn out, straightened and cut into pin lengths. The wire was then ready for the pin makers. Bundles of wire were sold to the Gloucester pin makers for making into pins by outworkers or in small workshops. Others were used to manufacture pins on Champion's own premises.



DRYING OFF

The pin lengths, called "shanks", were pointed by an operator who sat before a revolving wheel, rather like a grindstone. The heads were made by winding fine wire around a rod. A head consisted of two turns of wire. These heads required annealing to make them more malleable. If the heading was carried out in the factory, this was done by putting the heads into the forge. When the heading was done at home, they were heated in a ladle on a fire then plunged into cold water.



FIXING THE HEADS



POINTING



STRAIGHTENING THE WIRE

The heads were attached to the shanks by means of a pin block. This consisted of a weight supported on a stand and was operated by a treadle. The operator held the shank and head under the weight. When the treadle was released the weight came down and crushed the head onto the shank. Very often, six or seven women shared one block, each having a separate weight. As a pin could be headed in a second or two, it can well be imagined the noise which was made, especially in the confines of a house. It is said that women could be heard singing songs together, keeping in time with the regular thump, thump on the pin block. In the last century the lanes of Soundwell echoed and re-echoed with the sound of heading pins. Women were engaged in this employment, while the men worked in the coal mines. The window seats in many cottages were used as pin blocks, good light being essential for the job.

## PAUPER PINMAKERS

Work in the pin making trade was often done by the pauper children in the poorhouses. In 1772, those at Warmley poorhouse each pointed and headed 1½lbs of pins daily. In 1779, a dozen children from the Siston poorhouse were doing work for the pin makers of Baptist Mills. An account book stated that the children only worked for one week in one certain month because "they had the Measles". According to a very graphic Moravian manuscript in Kingswood around 1817, "Swarms of beggars were crying for bread their former employment of pin making, having almost ceased". At this time it would appear that the children in the poorhouses at Downend, Mangotsfield, and Bitton were still working but their production was greatly reduced.



No. 7. Separately examined the following females employed in Mr. Charleton's in Manufactory:

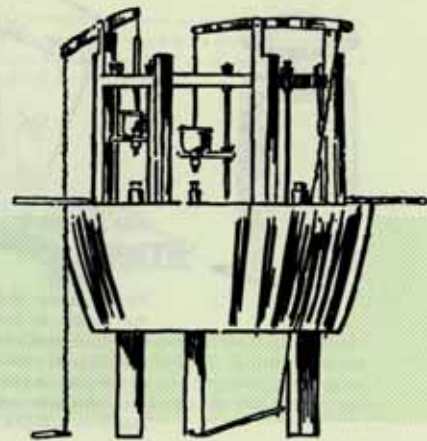
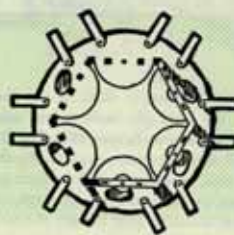
Eliza Lewis	aged 17,	has worked 3 years,	earns 4s. 0d. to 4s. 6d. per week.
Elizabeth Palmer	" 17,	" 3 " "	3 6 " 4 6 "
Martha Pearce	" 16,	" 2 " "	2 6 " 3 0 "
Fanny Britton	" 17,	" 5 " "	4 6 " "
Ann Green	" 16,	" 2 " "	3 6 " "
Sarah Shepherd	" 16,	" 6 months "	3 0 " "

## MECHANISATION

Pin making machinery was introduced at Charlton's works. Pin making machines were patented in 1817 and 1824 by L. W. Wright, an American living in London. These machines were not a commercial success, and the patent was taken over by Daniel Foot Taylor who improved on the originals. In 1833 the machines were in production in Taylor's premises at Rodborough near Stroud. Around this time, three engineering brothers, Samuel, William and James Lusty, had considerable knowledge of pin machines, possibly gained from Taylor's works. James Lusty went into the Two Mile Hill works as an engineer. When the Charlton works introduced the new machinery into their works in 1840, the business started to expand. Just a few years later they had a large room, fitted up with a number of machines which immediately went into full operation.

A. Braine, in his History of the Kingswood Forest gives a fascinating description of these machines at work.

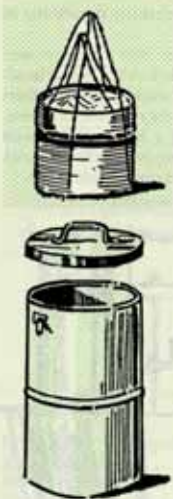
The sight was exceedingly pretty. In some machines the bright little pins, were seen dropping very regularly into a basket, two or three per second. After being 'headed', the sparkle accompanying them appearing like burning drops of liquid. Others again, were carried around from the heading apparatus, to the receiver, in wheels, looking like so many little stars. A little brass box called a hopper, filled with shanks to be headed kept up an incessant buzzing by shaking out a solitary shank at a time, to be in its turn, caught on the machine and thumped into a pin.



## STAPLE HILL PIN FACTORY

Old pin making machines are now rare. The Bristol Industrial Museum possesses a few which were obtained from the Staple Hill factory on Lower Station Road. The proprietor of this factory was Thomas Rawbone (he later changed his name to Rathbone) who is first mentioned as a pin manufacturer of Staple Hill in 1870. The premises still stand. There is a main building, attached to which is a smaller building in which the steam engine was housed. Standing alone but adjacent is another small building which housed the vats for plating pins. There were also boilers in which the pins were boiled in sour beer before plating.

They were plated by being treated in a solution of water, cream of tartar and granulated tin. Polishing was done by putting the pins in a leather bag with bran. The opening was then tied up and the bag given a good shaking. After this the pins were tipped out and the bran blown away by bellows.



The proprietor of the factory died in 1896. It was then that almost the last of the local pin makers laid aside their tools and left the factory at Staple Hill. For just over 40 years until 1937 when the site was sold the factory remained just as the workpeople left it, with the wire spools in position, wire threaded through the machines and half filled boxes of pins beside them.

## PIN MAKING AT WARMLEY

The Warmley company was founded in 1746 by William Champion who had been a member of the Bristol brass company. About 800 people were employed at Warmley making it one of the largest industrial undertakings of its time. Many more were employed as outworkers. By 1767 pin making was undertaken at Warmley on a considerable scale.

When in 1767 the Warmley works proposed to use £30,000 to boost their pin business, the pin makers of Gloucester petitioned against this investment. They believed such an extension of the Warmley manufactory would draw off trade from their own town.

In 1768 at Gloucester child pin makers of 9 and 11 years earned 2d and 3d a day. Journeymen (those who had finished an apprenticeship) received 7s - 9s a week and a few particularly skilled workers earned 10s - 15s a week. These rates were probably comparable with those paid at Warmley.

In 1769 Champion's company went bankrupt and from this time Warmley began to lose its pre-eminence in the brass industry. Pins continued to be made there until the middle of the 19th century.



In 1834 the Warmley works were held by Messrs Harford and Co., the Harford family having had interests in Warmley for some time. A Mr. Davidson carried on the pin works department. In about 1837 Davidson became the sole proprietor carrying on the spelter production, as well as pin manufacturing. He died in 1851 and his son Alfred succeeded him and added a pottery.

## PIN MAKING AT TWO MILE HILL

Robert Charlton (1809-72) is a name indissolubly bound with the Kingswood pin industry. His pin works adjoined Filwood House at the Two Mile Hill end of Charlton Road, which takes its name from Robert Charlton. He opened his factory in the early 1830s. The manufactory was also associated with Mr. Lambert who was a partner in the business and was managing it as early as 1830. Mr. Lambert lived in Filwood House; Mr. Charlton, however, travelled from his home in Ashley Hill, Bristol almost daily. He was a Bristol quaker, philanthropist and temperance worker. He saw the misery of the Kingswood poor and opened a factory to provide work. The introduction of machinery by Charlton and Lambert revolutionised the production of pins.

In 1841 Robert Charlton's works at Two Mile Hill employed 110 female hands and 50 boys. 500 women and children outworkers were employed at heading and attaching the pins to paper.



Close to the works, on the Two Mile Hill road, Robert Charlton built a school for his workers and their children. It was used as a place of worship on Sundays and was the fore-runner of Zion Chapel at Kingswood. It was the only factory school in the district. He charged 2d a week and "1d extra for writing".

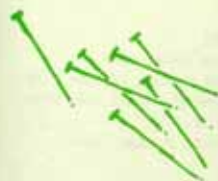
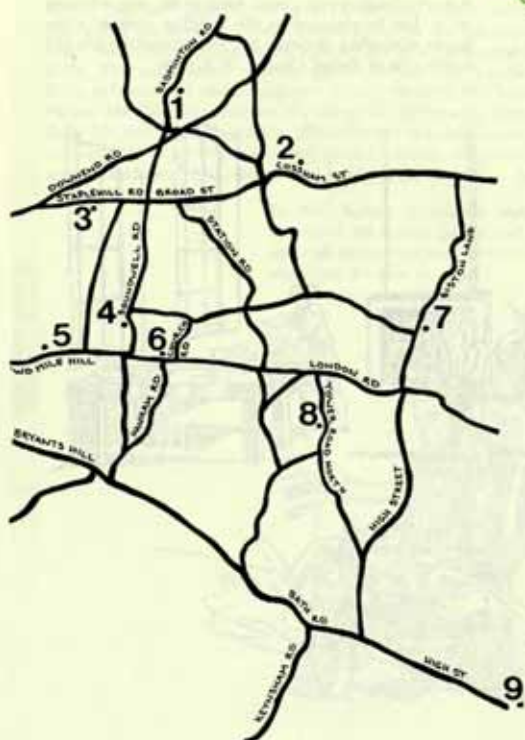
Robert Charlton was always loyal to his own religious tenet, but he donated to the building costs of other places of worship. For example, he donated the first £10 to the cost of Bethel Chapel, St. George.



*Robert Charlton*  
1809-1872

In 1931, an old gentleman recalled a memory of the Charlton Road pin factory. He said that in his youth, the factory was in full working order and that a large waggon, like a G.W.R. goods waggon, used to make daily journeys to Bristol with consignments of pins. He said there were once two ponds close to the factory into which the "waste hot water from the works was run off. It was great sport among the local lads to strip off to wash and jump around in this".

## PIN FACTORY SITES



The Warmley works and the factories at Two Mile Hill and Staple Hill are the best documented pin making sites. There were other factories in the Kingswood area which we have identified with the help of maps, street directories and local knowledge. Besides the actual factories there were the poor houses and the many cottages where outworkers headed and pointed the pins at home.

We know of the following sites, doubtless there are many more.

- 1**  
Badminton Road, Downend, by the Green Dragon Inn. ST 653769.
  - 2**  
Cossham Street, Mangotsfield, at the Poor House. ST 665763.
  - 3**  
Lower Station Road, Staple Hill, Thomas Rawbone's factory. ST 643758.
  - 4**  
Colston Street, Soundwell, James Dobson's factory is marked on the 1844-5 tithe map. ST 647750.
  - 5**  
Two Mile Hill, Robert Charlton's factory. ST 640739.
  - 6**  
Church Road, Kingswood, at the Poor House. ST 651739.
  - 7**  
Siston Lane, Webbs Heath, at the Poor House. ST 683742.
  - 8**  
Tower Road North, Warmley, William Champion's works. ST 670728.
  - 9**  
High Street, Bitton, at the Poor House. ST 682696.
- New Cheltenham. It is believed Bennet & Munro had a factory at New Cheltenham which was known as the Tower Works.



## USEFUL READING

A. Braine, *The History of Kingswood Forest*, London 1891.  
Joan Day, *Bristol Brass: A History of the Industry*, Newton Abbot 1973.  
Henry Hamilton, *The English Brass and Copper Industries to 1880*, London 1926.  
Rev. Arthur Emlyn Jones, *Our Parish: Mangotsfield, including Downend*, Bath 1899.  
W. T. Sanigar, *Pin Making in Bristol*, (Bristol Reference Library).  
Dorothy Vinter, "Child Pin-Makers", *Gloucester Countryside*, August 1958.



This pamphlet was written by Doreen Street in conjunction with the Kingswood History Project. The Project is promoting the history of the Kingswood District and hopes eventually to set up a Kingswood District Museum. We believe history is a vital means of giving life and meaning to a rapidly changing area. We are assisting people to explore their own history through oral history, publications and talks.

We would like to thank Alan Bryant and Derek Floyd for sharing with us their knowledge of Kingswood's history, and of pin making in particular.

The Kingswood History Project is being undertaken by Avon County Community Environment Scheme (ACCES). ACCES is a Manpower Services Commission scheme sponsored by Avon County Council and is engaged on a variety of conservation projects.

We are keen to learn more about pin making and other aspects of Kingswood's history. If you can help please contact us at:

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