

The Birmingham Button Industry

By D. P. WHITE

SUMMARY: *The city of Birmingham has been the birthplace of many industries and, somewhat surprisingly, one of the most important of these is the button industry, since this small but indispensable item appears to have been a major factor behind the increasing prosperity of 18th- and 19th-century Birmingham.*

THE EARLY HISTORY OF THE BUTTON INDUSTRY

THE ORIGINS of the button industry are steeped in obscurity and it is even difficult to assess when buttons were first worn. Joseph Strutt¹ makes reference to buttoning during the reign of Richard II.

'Their hoods are little, tied under the chin and buttonned like the womens'.

However, it is not made clear whether the term *buttonned* refers to the use of a button or whether it is merely to be taken as *fastened*, since 14th-century engravings give no certain indication of buttons with button holes. The functional object, and this must surely be the criteria by which a bead becomes a button, seems only to have come into use in the 16th century. John Stow² puts the popularization of fine buttons into a late 16th-century context:

'At the beginning and before the reign of Elizabeth the making or wearing of silk buttons was very little or not at all known to the common people, they having their buttons constantly made of the same stuff with their doublets, coats and jerkins. The honourable personages as well women as men did wear borders of great crystal buttons about their caps or head bands, to distinguish between the gentry and others: but in the tenth year of Queen Elizabeth many young citizens and others began to wear crystal buttons upon their doublets, coats and jerkins . . . And within a few years afterwards buttons of thread, of silk, of hair and of gold and silver twist became common and were chiefly worn.'

Presumably such demand heralded the development of the individual trade of *buttony* in the early 17th century.

This was the thread-covered button industry and was organized on the basis of a nationwide domestic industry with outworkers using needles to handweave threads of silk, hair or wool over a ring of wire or stiffened cloth to produce buttons

¹ J. Strutt, *A Complete View of the Manners, Customs, Arms, Habits etc. of the Inhabitants of England from the Arrival of the Saxons till the reign of Henry the Eighth* (1774), Vol. II, p. 84.

² J. Stow, *A General Chronicle of England* (1631), p. 364.

for every town in England, the only notable concentration of workers developing in Dorset at the end of the 17th century.³

Even at this early stage the industry had acquired sufficient status to find its way into parliamentary proceedings and attempts were made to protect the thread button-makers from foreign imports. The foreign buttons were made of hair and cheaper than the English equivalent and in order to stop these swamping the trade William IV imposed a £100 penalty on any importer of foreign buttons.

The thread button-makers also felt the effects of the increasing popularity of cloth-covered buttons which were being made in England, and to alleviate the effects of this competition Queen Anne forbade the wearing of cloth-covered button on pain of £5 per dozen.⁴

Competition, however, did ensue and the cloth button largely replaced the needle made button and remained very popular until *circa* 1760 when gilt and cut-steel buttons became very popular for men's wear.

'Gilt, gold, silver and pinchbeck buttons became popular from 1760.'⁵

This was the point of change in the button industry, since metal buttons could not be produced around the domestic hearth, in the same way as the thread and cloth-covered buttons. It became necessary to organize a centralized work force to deal with the various processes involved in metal button production. This was the point at which Birmingham began to emerge as the centre for the English button trade. It is difficult to explain this concentration of industry in one locality. Birmingham, however, had always experienced problems related to the transport of raw materials, because of her position in the centre of England prior to the age of canals and railways. Even prior to this date, the artisans of the town had eased the situation by concerning themselves with the production of small items, which relied far more upon local skills, than the quantity of raw materials available. Hence, buttons were a highly suitable project to which the Birmingham industrialists could turn their attention, particularly following the complete decline of the local buckle industry, which followed the popularization of shoe lacing in the 1790s.⁶

Of course metal button did not automatically wipe out the production of buttons elsewhere and cloth and thread buttons continued as an 18th-century cottage industry in North and East Dorset.

THE VARIOUS BRANCHES OF THE BUTTON TRADE

The gilt button days of Birmingham were a period of rare prosperity. There was little or no competition from abroad and a large export trade to Europe and America which enabled the owners of the button works to reap annual profits in excess of £2,000.⁷

³ M. D. Chapman, 'Dorset Buttons', *The Countryman* (1968), p. 147.

⁴ C. L. Ross, *The Button Industry* (1924), p. 12.

⁵ C. W. and P. Chamberlain, *Handbook of English Costume in the 18th Century* (1957), p. 200.

⁶ John, 'The Birmingham Button Trade', *Birmingham and Midland Hardware District* (1866), p. 434.

THE BIRMINGHAM BUTTON INDUSTRY

Tons of metal were used in the late 18th and the 19th centuries to produce gilt buttons and a surprising number of processes were involved. Firstly button blanks were cut from strips of copper, slightly alloyed with zinc, by a woman operating a hand-lever press. If the buttons were to remain flat they were then passed to a second female worker who rolled each button between two pieces of steel to round off the edges (PL. xviii). If, however, the buttons were to be domed, the blanks were placed in a second press where a polished surface was brought to bear on them to give the desired concavity. Once shaped it was then fixed to a back or *bottom* by means of a die and punch, which bent the edges of the *shell* over the bottom. If a design was required on the button, the blanks had first to be pressed with a die, and, as greater force was needed for this task, the stirrup operated press was usually worked by a man⁸ (PL. xix).

The next stage was the fixing of shanks to the buttons. The production of shanks was always a distinct industry, because the button manufacturers found that they could buy shanks in, cheaper than they could produce them. The industry really stemmed from a local man, Ralph Heaton, who, in 1794,⁹ patented a machine for shank production. This was so successful that by 1836, William Hutton recorded that three Birmingham factories were together producing more than 600 million shanks each year.¹⁰ The shanks were then soldered to the backs and the buttons were ready for finishing.

The first stage of the finishing processes was to clean the surfaces of the buttons with dilute nitric acid to remove any traces of oxidation caused by the shank solder. Then they were roughly burnished on a lathe using Derbyshire bloodstones, and then coated with a cupric mercury mix which helped the later adhesion of the gilding amalgam. The actual amalgam was prepared by heating a little gold powder mixed with mercury in an iron ladle. This was then poured into cold water and the hardening mix was then forced through a chamois leather to remove any excess mercury. The resultant amalgam was of a butter-like consistency and was mixed with a little nitric acid in an earthenware vessel. The buttons were then immersed in the mix. The acid reacted with the copper in the alloy and by so doing stimulated a slight amalgamation between the mix and the button, so that the mercuric mix adhered to the surface. It was then necessary to dry-off the mercury, by heating the buttons in a large open pan and then shaking them in a felt bag called a *gilder's cap* to remove the mercury. This was repeated several times until the mercury had been completely volatilized.¹¹

The heating of the buttons in an open pan naturally led to the health risks caused by the resultant mercury vapours, and, perhaps of more interest to the owners of the button works, the mercury could not be recycled. Hence, in the early 19th century, a closed hearth was introduced for gilding and was successfully used by a Mr. Sanders in his Birmingham button works. By this method the buttons to be

⁸ 'The Button Manufacture of Birmingham—an account of visits to the works of Messrs. Elliott and Co. and Messrs. Hamond and Turner.' *The Illustrated Exhibitor and Magazine of Art* (1832), pp. 316–9.

⁹ Patent No. 2010 (1794). *Heaton's Machine for Making Metal Shanks for Buttons*. Copy held by Birmingham Science Museum.

¹⁰ W. Hutton, *History of Birmingham* (1836), p. 173.

¹¹ A. Rees, *Ree's Cyclopaedia* (1819), Vol. 5, Button.

gilded were placed in iron cages which were put into a closed furnace in order to volatilize the mercury. Over the furnace was a chimney outlet upon which the mercury vapour condensed and from which the liquid mercury ran down a cast iron tub into a vat of cold water from where it could be collected and used again (pl. xx).

Once the gilding processes were complete, the buttons were dried and burnished to a bright finish (pl. xxi).

White metal buttons underwent slightly different processes. The metal from which these were made was an alloy of brass and tin, and they were firstly polished using pieces of buffalo skin on wooden bases. Hence, the term *buffing*. Then they were ground with a mixture of grindstone and oil and *white-boiled* in a solution of powdered tin and red tartar. Finally they were buffed with finely prepared crocus,¹² to a fine silver finish.

A surprisingly small metal content was necessary in the gilding amalgams, just five grains of gold powder being sufficient to gild 144 buttons.¹³ Yet manufacturers were tempted to include rather less gold and often produced vastly inferior buttons. The metal button industry was, however, so important to Birmingham that producers of defective gilt buttons were heavily penalized. There is an interesting pamphlet in Birmingham Reference Library by Job Nott,¹⁴ which gives an account of a case heard at Birmingham Assizes in 1800. A large quantity of gilt buttons had apparently been seized and the standard of their gilding checked by manufacturers from Matthew Boulton's Soho Works. Some were found to be up to 50 per cent deficient in gilt according to established standards, and the makers of the buttons were fined £550 plus costs. Perhaps more interesting than the legal outcome was the particular concern the wise judge showed with the case, stating that unless the standard of Birmingham products could be kept high, trade would be lost to the continent.

'Foreigners would not come again where they had once been cheated.'¹⁵

The Birmingham metal button industry, however, prospered, nurtured by the continuing desire of men, women and children to ornament their persons with small glistening objects. Throughout the period 1760 to 1840, the button held high sway as a popular status symbol and as early as 1763 there were continuing references in issues of *St. James' Chronicle*¹⁶ to tradesmen who tried to ape their superiors by covering their coats with gilt buttons.

A fall from popularity was inevitable and by 1840 the more severe fashions of Victorian England meant that over-buttoning was considered indiscreet. As a result of a fall in demand the fortunes of the Birmingham button-makers began to decline and in 1830 the first ever petition to be passed direct from the working classes to the king was published.¹⁷ This was a plea to his majesty to encourage the wearing of

¹² A name given to red or yellow powders which are produced by metal calcination.

¹³ Rees, *op. cit.*, in note 10.

¹⁴ J. Nott, *Birmingham Assizes, being a full, true and particular Account of the Great Trial pamphlet*.

¹⁵ Nott, *op. cit.*, in note 13, p. 4.

¹⁶ *St. James' Chronicle or The British Evening Press*, 1763.

¹⁷ *The Morning Herald* '2nd September 1830'.

gilt buttons at court in order to alleviate the depression in which the button manufacturers of Birmingham found their businesses. Attempts were made by the Royal Family to reverse trends but the decline in popularity of gilt buttons continued, and was, in fact, capped by a blow from within the industry itself with the introduction of electroplating in 1840. The buttons gilded by this method were of a vastly inferior quality¹⁸ and finally pushed the hand of fashion away from the various metals which had been the prime materials for the production of buttons. The number of firms involved in the production of gilt buttons was greatly reduced but the manufacture of metal uniform buttons continued in Birmingham, through to the present day.

The second staple branch of the industry was that of pearl button manufacture and pearl buttons were a uniquely Birmingham product since the shell from which they were made called for the real craftsmanship that the Birmingham artisan traditionally applied to his work.

There were three main processes involved in the production of pearl buttons and very little mechanization was necessitated by these. Firstly blanks were cut from the shell using a tubular saw (pl. xxii). In the early days of manufacture only the fine white centres of the shells were used and the rest was discarded.¹⁹ This led to the accumulation of tons of waste shell on the various tips around Birmingham.

Once cut, the blanks had to be fitted with shanks and this was done by forcing a V-shaped shank into a small hole which had been drilled into the back of the button (pl. xxiii). The shank was then hammered and a split pin, which formed the V, parted and secured the shank.²⁰ Alternatively, the blanks were passed to a female worker who drilled two or four holes in the blank.

The third process was that of design, when the button was engraved or facet cut with great skill, and then polished with soap and rottenstone. Not all pearl buttons had self-cut surfaces, however, and by the middle of the 19th century, it became fashionable to wear pearl buttons inlaid with paste stones or ornamented with cut steel. It was the ability of the pearl button-makers to add these novelty finishes to their products which assured their place in popular fashion and indeed the pearl button remained in demand for longer than any other type of button.²¹

The shells used by the pearl button-makers were of many different types and were drawn from all corners of the globe. The finest of these was the white Macassar shell from the East Indies which was brought into the Birmingham workshops in the 1850s at £140 to £160 per ton. Naturally, the buttons produced from these were expensive and so the cheaper Manilla shells from the Philippines were used to supply popular demand. Various shells were also imported from the Red Sea and Persian Gulf. These were called Bombay or Alexandrian shells, but as the fisheries became exhausted, supplies of these became intermittent. However, once it became obvious that black buttons could be just as popular as white, the darker shells, with their fine coloured tints, were imported from the Pacific.²²

It was a common 19th-century exaggeration that 5 shillings was enough

¹⁸ *Victoria County History: Warwick* (1964), Vol. VII, p. 238.

¹⁹ Turner, *op. cit.*, in note 6, p. 34.

²⁰ *The Illustrated Exhibitor and Magazine of Art*, *op. cit.*, p. 347.

²¹ Jones, *op. cit.*, in note 4, p. 33.

²² Jones, *op. cit.*, in note 4, pp. 35-36.

capital to establish a man in the button trade.²³ This obviously overstates the case, but, because of the low degree of mechanization in this branch of the trade, it was true that a small quantity of a cheaper quality shell, placed in the hands of a craftsman, could reap high profits. Hence certain areas of Birmingham became crowded with *garret masters* who were men working, often in their own small premises, to produce a small quantity of high quality buttons.

However, it would not be strictly true to term these *garret masters'* workshops, businesses, since the artisan was often employed by a larger concern which supplied the shell, took the buttons and paid regular wages.²⁴ Once again, local fortunes were made and in 1866 the trade employed approximately 2,000 people and somewhere in the region of 22 tons of the different shells were consumed in Birmingham each week.²⁵

A hard blow was dealt to the pearl button-makers in the 1850s when the American Civil War led to a complete cessation of exports to the States. A valuable market was lost to the Birmingham manufacturers and although the trade revived a little after the close of the war, the American pearl button trade had been established in the interim and the button industries of Paris and Vienna were rapidly developing as rivals for continental trade.²⁶ The figures for the amounts of shell imported clearly reflect the gradually declining demand. In 1859, there were 1,800 tons of shells imported and yet by 1863, just 800 tons were sufficient to meet demand.²⁷

A further blow came to this branch of the industry with the introduction of the corozo nut. Apparently the first samples of these were brought from Venezuela by Mr. Burgiss, a local toymaker, but some were then acquired for making buttons, by a Mr. Bricknall.²⁸ Corozo nuts are a form of vegetable ivory and the kernels from these are particularly white, light in weight, soft enough to turn on a lathe and able to hold dyes of any colour. Apart from these useful characteristics, corozo nuts were cheap. In 1866 a ton was imported at approximately £30, whereas an average quality shell cost between £70 and £80 per ton. Hence buttons of vegetable ivory began to compete with pearl buttons for the popular market and by 1866, 700 persons were employed to produce such buttons.²⁹ Yet, perhaps more important than the figures is the fact that the use of vegetable ivory marked the introduction of many different composite and substitute materials into the trade, all of which led to the declining popularity of the pearl button and its eventual replacement by plastics, at the turn of the 19th century, which will be discussed later.

The third branch of the button industry, which was of importance to Birmingham, was the horn button trade. Horn buttons had been made in Birmingham since the mid-18th century, as William Hutton noted:

'We well remember the long coats of our grandfathers covered with half a gross of high-tops³⁰ and the cloaks of our grandmothers ornamented with a horn button nearly the size of

²³ Jones, *op. cit.*, in note 4, p. 36.

²⁴ A History of the County of Warwick, *op. cit.*, in note 17, p. 238.

²⁵ Turner, *op. cit.*, in note 6, p. 441.

²⁶ Jones, *op. cit.*, in note 4, p. 38.

²⁷ Turner, *op. cit.*, in note 6, p. 441.

²⁸ British Association, *Handbook of Birmingham* (1886), p. 168.

²⁹ Jones, *op. cit.*, in note 4, p. 31.

³⁰ High-top; the earliest cloth-worked button, which was based on a ring of Dorset sheep horn.

a crown piece, a watch or a John-apple, curiously wrought as having passed through the Birmingham press.'³¹

By the 19th century, many horn buttons were being produced in France and it was a French gentleman, Monsieur Emile Bassot of Paris that introduced great improvements to the horn button trade in the 1830s, which were quickly taken up by at least three local buttonworks. These were the firms of T. W. Ingram and Thomas Cox of Birmingham and Thomas Harris of Halesowen.³²

The processes involved in the production of horn buttons were rather different from those employed in other branches of the industry. The starting material is really only the waste from abattoirs and yet today commands the surprisingly high price of £5,000 per ton.³³ The horn came from oxen, cattle and even ram and after sorting, the tip was cut from each horn and this was *barked*, that is the rough outer layer was removed and the horn polished to form a toggle button. The remaining section of solid horn was then cut into longitudinal sections which were steam compressed to form flat sheets from which blanks were cut. The blanks were then turned on a lathe to produce a rim and scoured by a lengthy period of rotation in a wooden barrel. Holes were then drilled in the buttons and they returned to the polishing barrels where they were polished with jeweller's rouge to bring up the unique lustre of the horn. Any patterning required on the buttons was traditionally cut by hand but during the 19th century, buttons of processed horn became available in many different designs, once it was realized that the interior sections of the horns were soft enough to be die-stamped.³⁴ These buttons of compressed horn showed exactly the same high degree of workmanship as the carved horn buttons of the early 18th century, which had been produced in most of the larger urban centres of the country.

The use of plastics in the button industry was felt most strongly by the pearl and horn branches of the trade. Yet ironically enough it was a local man, Alexander Parkes, who patented the earliest plastic *Parkesine* in 1862.³⁵ This, however, never really replaced natural materials in the button industry and it was only, with the introduction of casein, in the early part of this century, that changes began. Casein was made from skimmed milk which was set with a rennet extract to form a solid which could be dyed any colour. Today, the only local horn button factory is James Groves of Halesowen, and ironically, they are now using casein to produce a cheaper range of buttons.

Numerous materials have, of course, been used for the production of buttons in Birmingham and as early as 1767 there is a reference in a local trade directory to the extent of the industry.

'This Branch is very extensive, and is distinguished under the following Heads viz. Gilt, Plated, Silvered, Lacquered, and Pinchback, the beautiful New Manufacture Plantina, Inlaid,

³¹ Hutton, *op. cit.*, in note 9, p. 171.

³² Turner, *op. cit.*, in note 6, p. 436.

³³ I am indebted to the management of James Groves, horn button manufacturers of Halesowen, for information concerning the processes involved in the production of horn buttons.

³⁴ S. C. Luscombe, *The Collector's Encyclopaedia of Buttons* (1967), p. 97.

³⁵ British Industrial Plastics, *The Beetle Guide to Plastics Antiques* (1976), p. 6.

Glass, Horn, Ivory, and Pearl: Metal Buttons, such as Bath, Hard, and Soft White, etc. there is likewise made Link Buttons in most of the above Metals, as well as Paste, Stones, etc. in short the vast variety of sorts in both Branches is really amazing, and we may with Truth aver that this is the cheapest Market in the World for these Articles.³⁶

It also seems likely that most works were producing buttons from more than one type of material, in order to lessen their dependency on the ever-changing fashion market. Nevertheless, it is fair to comment that it was those branches of the industry already discussed which were of prime importance in Birmingham.

STATISTICAL ANALYSIS OF THE INDUSTRY 1770-1900

Once the various branches of the button industry have been considered it is interesting to examine the structure of the trade in Birmingham.

By extracting the information from trade directories it is possible to plot a graph to show the number of button works which were operating in Birmingham at any one time. The period covered by the graph is from 1770, the earliest Birmingham directory in existence being from 1767, until 1900. The count of companies was taken at approximately ten yearly intervals according to the regularity of the issued directories and only button-makers proper were included.

It is interesting to note how closely the rises and falls of the graph relate to the facts already considered. The first rise from 1770 to approximately 1785 was the period when the ranks of the traditional cloth and horn button-makers were being increased by early gilt and cut-steel workers, but after this initial increase the numbers of button-makers began to decline steadily until the 1820s. This is largely explained by the rapid rate at which the thread and cloth buttons were pushed out of popular fashion by the metal button. Also the fact that this was a period of British emigration and immigrants to the continent were taking many uniquely British skills with them. In 1824 a parliamentary commission was established³⁷ to look into this problem and found that although most foreign countries had a fascinating history to their own button trade, the craftsmen of Birmingham had undoubtedly played a large part in the development of these industries. Thus, this competition for world markets began to be felt by Birmingham. From 1820 until the early 1830s there was another increase in the popularity of gilt buttons, particularly in the world of male fashion. By about 1840, however, such buttons were becoming less popular with the more severe Victorian man and at the same time the French industries, particularly those of Paris and Lyon, were beginning to compete strongly. The French were undoubtedly better placed geographically for trade and Paris, in particular, had the advantage of being considered the fashion centre of the world.

This mid-century depression continues on the graph until about 1860 when a rapid increase over fifteen years is shown, reaching a peak in 1876 when 321 individual button-makers were listed in the local directory.³⁸ This, then, was the real

³⁶ Sketchley, *Birmingham, Wolverhampton and Walsall Directory* (1776), p. 13.

³⁷ Parliamentary Report on the Emigration of Artisans (1824), pp. 310-11.

³⁸ Hulley, *Birmingham Directory* (1876).

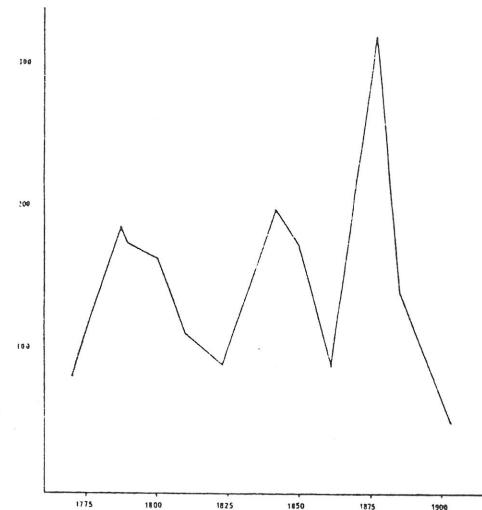


FIG. I
Graph to show fluctuations in the number of Birmingham button factories 1770-1900.

heyday of the Birmingham industry, based on the highly fashionable pearl button, in the production of which none could compete with the Birmingham artisans. After the 1870s, however, a slow decline in numbers begins, which would continue after 1900 at a slower rate until the present day. By this period the American market had been lost, as a result of the Civil War blockade, and the French were practically self-sufficient, apart from importing a few linen shirt buttons from Birmingham.³⁹ New materials, such as the early plastics and rubber, were being introduced into the trade and, perhaps more important, new methods of fastening, such as the zip were being utilized more and more on garments, so that the humble button was being forced into a position of partial redundancy.

Undoubtedly, these fluctuations do exist but it is important not to lose sight of the overall increase in button-makers until 1875. It would be impossible to deny the importance of this button trade to the increasing prosperity of mid-19th century Birmingham.

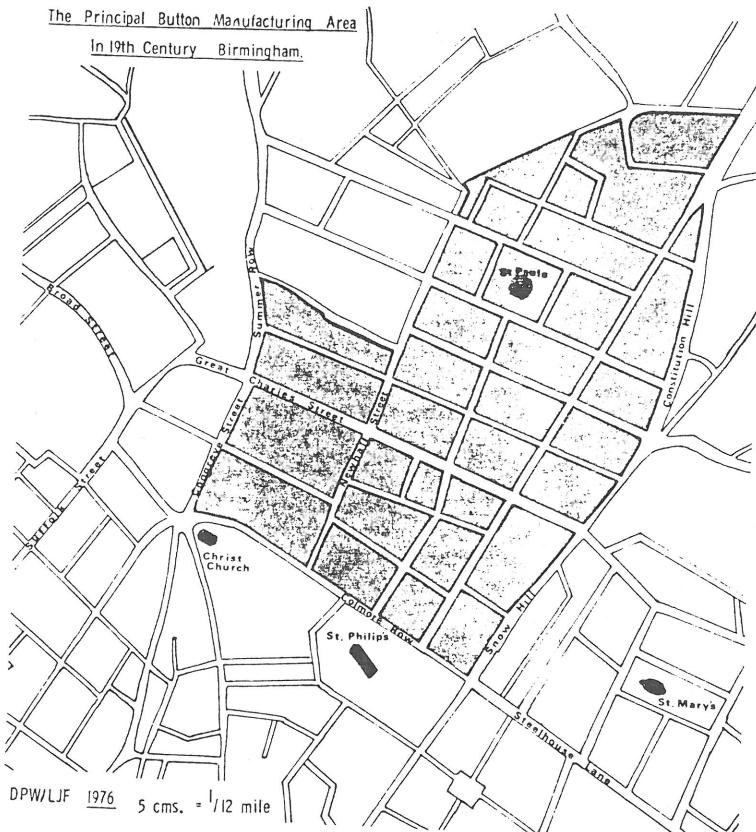
Using 19th-century trade directories again, it is also possible to locate the main area of the town in which button production was taking place, at the peak of the industry between 1860 and 1875. This is done by plotting the given addresses on to a map of the town. There were, of course, certain manufacturers scattered across

³⁹ Jones, *op. cit.*, in note 4, p. 70.

Birmingham but the majority of the button-makers and certainly the more important of them were situated in the area bounded by Colmore Row, Snow Hill, Mount Street and Congreve Street. Even today, it is surprising how many of the remaining button factories are situated within this area.

PIONEERS AND CONDITIONS IN THE TRADE

Statistics reveal an overall picture but it was the button-makers themselves who were responsible for this striking localization of a manufacturing industry, since a



very large proportion of innovations were introduced into the button trade, through the inventiveness of the Birmingham industrialists. Between 1631 and 1852, 112 patents were issued concerning the manufacture of buttons and of these, 70 were originated in Birmingham.⁴⁰

The earliest recorded button-maker in Birmingham was a Mr. Baddeley of The Square. He retired from business in 1739, having previously introduced the oval chuck which greatly facilitated easier production of buttons.⁴¹ The earliest patent, however, to be issued to a Birmingham manufacturer was in 1770. This was to a jeweller, John Smith, of Newhall Street and concerned a new method of stamping metal buttons which were to be set with stones and which allowed *cramps* to be turned over to hold the stones in position.⁴²

William Hutton recorded that John Taylor of Birmingham who became High Sheriff of Warwickshire in 1756 introduced improvements in gilding, plating and lacquering to the industry, while his own factory produced £800 worth of buttons every week.⁴³ In fact, throughout the later 18th century, patents were issued to Birmingham button manufacturers almost every year. Innovations concerned with burnishing buttons, producing buttons by rolling from metal bars, stamping from sheet iron and casting in various base metals were brought forward and new materials, such as papier-mâché, slate and cast-iron were introduced to the trade.⁴⁴

Matthew Boulton, that most famous of Birmingham's industrial pioneers, was himself originally a button-maker, inheriting his father's button works in 1759 and improving the production of all types of buttons. Later at his Soho works, a whole department was devoted to the production of extremely fine cut-steel buttons.⁴⁵

After the turn of the 18th century, when the button trade was suffering a slight depression, the number of patents granted showed a similar decline, only two being issued to Birmingham button-makers between 1800 and 1824.⁴⁶ After the 1820s coinciding with the rise in the number of factors, the Birmingham patents began to appear again. Most notable was that group connected with the horn branch of the trade, which appeared in the 1830s. First of these was T. W. Ingram's patent of 1832 for a horn button press, which was followed in 1837 by his patent of a method for producing patterned horn buttons with dies. In 1840, Joseph Parkes patented a method for covering button fronts with a sheet of thin horn and in 1841, Thomas Harris, of Halesowen, introduced an improved method of fixing shanks to the buttons.⁴⁷

Another group of patents were issued between 1813 and 1837 concerned with cloth covered buttons. Perhaps the most important of these was Benjamin Sanders' patent for a machine which produced cloth-covered buttons by a new method using dies and pressure, which revolutionized that particular branch of the trade. This was

⁴⁰ R. B. Prosser, *Birmingham Inventors and Inventions* issued through H.M. Patent Office (1881), p. 54.

⁴¹ Turner, *op. cit.*, in note 6, p. 434.

⁴² Prosser, *op. cit.*, in note 39, p. 55.

⁴³ Hutton, *op. cit.*, in note 9, p. 237.

⁴⁴ Prosser, *op. cit.*, in note 39, pp. 55-57.

⁴⁵ Boulton and Watt, *Pattern Book of Sword Hilts, Beads, Buttons etc.* (c. 1775).

⁴⁶ Prosser, *op. cit.*, in note 39, p. 60.

⁴⁷ Prosser, *op. cit.*, in note 39, pp. 60-61.

followed by William Elliott's patent of 1837 for the production of fancy cloth-covered buttons, each with an individual centre pattern.⁴⁸

These are just extracts from the many innovations which were the direct result of individual inventiveness, but they serve to clearly illustrate the importance of the role played by the Birmingham industrialists in the development of the button industry. In fact, throughout the 18th and 19th centuries some of Birmingham's most prominent citizens were engaged in the button trade and, somewhat surprisingly, it became an industry of certain status.

However, it is not only the owners of the button factories who must be considered but also their employees, the real artisans of the trade.

At the peak of the trade, in the mid 19th century, two-thirds of the workforce employed in the button factories were women. While the average male wage in 1866 was approximately 25s. per week, the female employees earned only 7s. per week, and children only 1s. per week.⁴⁹ Some children were only six years old when they started to work in the button factories and because of this, in 1864, a government commissioner, Mr. J. E. White, was appointed to look into the proposed application of a factory act to Birmingham. A high level of problems was reported in the button industry concerning low educational standards and loose morals and Mr. White was particularly concerned with the possibility of legislation against the employment of children.⁵⁰ John Turner⁵¹ saw a far greater problem in the employment of married women, who neglected their position in the home where their only true value lay, and noted that women button workers often put the care of their children out to hiring neighbours in order to glean a miserable weekly wage.

However, it would be wrong to assume that, outside the social problems caused by such employment, the working conditions were any worse in the button factories than in other contemporary trades. To the contrary, one button firm at least would have had it known that they were enlightened and sympathetic employers. This was Green, Cadbury and Richards Company of Great Hampton Street (pl. xxiv) a fine mid 19th-century button works. In a Birmingham guide of 1888 the company is mentioned as being a credit to Birmingham, paying the school fees of the children they employed outside the regulated hours of study, providing a library for their employees and running a benevolent fund for the button-makers.⁵²

"It is not surprising that a mutual feeling of cordial goodwill exists between employers and employed; and this in itself has been an incentive to the production of works that, whilst contributing to their own prosperity, has added somewhat to the credit and dignity of Birmingham industries."

Today only four button factories are to be found in Birmingham, which represents a surprising drop in numbers in just over one hundred years from 1875, when 321 button-makers were listed in the directories. It is true that there has been

⁴⁸ Prosser, *op. cit.*, in note 39, pp. 65-67.

⁴⁹ Turner, *op. cit.*, in note 6, p. 444.

⁵⁰ The Children's Employment Commission 1832. Third report of the Commissioners (1864) *Report upon the Metal Manufacturers of the Birmingham District*. J. E. White. Appendix B. No. 51.

⁵¹ Turner, *op. cit.*, in note 6, p. 445.

⁵² Birmingham. *A Guide to the Industrial Resources of the Midland Metropolis* (1888), p. 68.

an actual decline in the trade, particularly since the turn of the century, but a hidden factor behind the drop in numbers is amalgamation. The firm of Buttons Ltd. for instance was formed in 1907 from Messrs. Plant, Green and Manton Ltd., Thomas Carlyle Ltd. and Messrs. Harrison and Smith. By the absorption of these companies into one, an original capital of £400,000 was produced, enough to allow competition with firms abroad, while competition between three of the larger Birmingham firms was stopped. Buttons Ltd. became a practically self-sufficient unit producing all types of buttons.⁵³ More recently, the London company of Firms, which was established as early as 1677, took over the firms of Dowlers, and Smith and Wright, and established a new combine in Birmingham.⁵⁴ Those firms which still run independently have adapted to the decline by widening their range of products and could now more properly be termed metal smallware producers.

The heyday of the Birmingham industry has undoubtedly passed, but during the 18th and 19th centuries many a local fortune turned on, that smallest of pivots, the button.

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⁵³ The Indispensable Button. *The L. and P. Magazine* (January 1911), p. 624.

⁵⁴ I am indebted to the management of William Dowler for this and other information concerning modern production techniques in the button trade.