LEICESTER FOUNDRIES 1845-1914

by

G. T. RIMMINGTON

In 1846 Leicester was described as having " two extensive iron foundries ",[1] which may readily be recognised as the Britannia Foundry of Cort & Bell (previously Cort) at the Public Wharf in Belgrave Gate and the Rutland Foundry of Richard Willson in Charles Street whose origins have already been described.[2] There were, in addition, four other foundries:[3] William Richards & Company, which came into existence in 1844, and seems to have been sharing the Cort premises ;[4] the foundry of Hefford & Son in Highcross Street ; Samuel Pegg in Ruding Street, near the canal but without wharfing facilities, as also was his near neighbour, Samuel Ride. All faced a dilemma, the conflicting desires of being near the canal and obtaining cheap premises. By 1854 the number of foundries was eight and there was little change in location,[5] though it was clear that the canal would decline as a positive factor in siting once the railway had arrived.

The fortunes of the Britannia Foundry may be examined first. James and Benjamin Cort had, earlier, taken Joseph Bell into partnership. By 1846 James Cort had disappeared from the business and the town. Three years later Benjamin Cort also retired.[6] The withdrawal of the Corts' capital put the foundry into serious financial difficulties, which were only partly solved by the entry of John Law.[7] Soon after he had obtained control of the Britannia Foundry the owner of the Rutland Foundry, Richard Willson, died and Law bought this foundry also. He then became sole owner of the two largest foundries in the town.[8] By June 1854 he had announced that part of the foundry plant at the Public Wharf was for sale.[9] Two weeks later he declared his intention of concentrating the business in Charles Street.[10] This central site, not far from the Midland Railway, was preferable.

In other cases the effect of railway construction was negligible in the choice of site for another three decades. This was because most of the heavy engineering products made in the town were absorbed within a small radius, mostly in the town itself. The location of Samuel Russell's foundry showed the relative insignificance of the railway as a siting factor. Except for a few castings sent elsewhere, Russells' production was limited to the local market. In 1880 he was supplying at least 27 machine-makers and framesmiths in the town with castings for their machines.[11] Even Law's " brass and iron castings for machinery of every description " would have been used almost entirely in the local area.[12] One business in the 1840s had a definite need for a rail-side location. The construction of the railway itself had encouraged W. Hamer to found a railway-carriage-building-business, which flourished until his death in 1850. It must have been quite a substantial concern, for there were " two self-acting lathes . . . drilling machine, punching and cutting machine . . . 29 pairs of bellows . . . 29 anvils and blocks . . . Linley's patent portable forge ".[13]

The prime consideration in the siting of heavy industry was still proximity to the main marketing areas. Thus, in general, the heavy iron-founding and engineering plants in Leicester after 1845, since they were almost entirely limited to the town and surrounding area for their market, tended to be situated wherever suitable cheap premises could be found. This was often in the poorer areas of the town. By 1880 a change was taking place and the railway was to be a factor in the later siting of some firms. With the widening of markets consequent upon the integration of iron-founding and engineering which will be discussed later, the use of the railway for transport increased in importance. Gimson & Co. had rail-siding facilities at the new Vulcan works. In 1874 W. Richards & Co. had sited new works similarly,[14] abandoning in the process the remnants of the old Britannia Foundry.[15] The influence of the canal had clearly disappeared. Ashwell & Nesbit found that the building of the Great Central Railway near to their Sycamore Lane works was of little use to them because of the high level at which the line ran through this part of the town. So, in 1904,[16] they moved into their Barkby-Road site with its rail-sidings.

The disadvantages of not being located in close proximity to the Midland Railway are demonstrated in the histories of Jessop & Appleby, and Taylor & Hubbard, since these firms were direct competitors. The former was some distance from the railway, in a depressed area ; the latter was in Kent Street, with rail-siding facilities. As markets grew beyond the immediate area, the Grafton-Place premises of the former became increasingly disadvantageous. Eventually the partners transferred the firm to London, and by 1911 their names had disappeared from the Leicester Directory. Taylor & Hubbard, with their cranes rolling off the production line straight to the railway siding, grew rapidly from the time that the firm was able to secure the Kent-Street works in 1900. This works continues in the same way today.[17]

Heavy industrial development is normally more affected by trade cycles than lighter industries. In Leicester this can be illustrated by the wavering fortunes of Samuel Russell, who began in 1863 to make iron and brass castings in a tiny workshop in Barston Street.[18] This was a year marked by " a period of expanding prosperity, with its repercussions . . . felt strongly in the heavy engineering trades . . . "[19] Pigou shows that pig-iron consumption was increasing appreciably throughout the country. Moreover unemployment figures for the engineering, ship-building and metal industries decreased during this time from 9 per cent in 1862 to 6.7 per cent in 1863, and 3 per cent in 1864.[20] From 1866 to 1868 there was a severe depression. The unemployment figures rose from 2.4 per cent in 1865 to 10 per cent in 1868.[21] Russell's business disappeared. His ledger accounts suggest that after managing to hold the business together during 1867 he was forced to give up in the next year. The *Leicestershire Trade-Protection-Society Directory* for 1870 makes no mention either of Russell or his business. He was clearly not even a householder, and probably lived with his father, Thomas Russell, at 3½ Causeway Lane. Unlike a number of

founders who went out of business Russell planned to start again when times were more favourable. By 1877 he was listed as a brass founder.[22] His own ledger accounts show that he was working in both brass and iron. In spite of the fact that another down-turn in the trade cycle had already begun we know that " engineers maintained activity at prosperity levels ".[23]

Unfortunately we know less about the other foundries. The surviving directories for the earlier part of the period indicate a fairly steady growth in the number of foundries. During the 1840s there were 6[24] and by 1861 there were 9.[25] During the next few years there was a rapid increase, for which the prosperity of 1863 was probably responsible. There were 14 foundries in 1864,[26] 18 by 1880.[27]. The growth of foundries reflects the growth of the town itself, for the greatest demand was for builders' ironwork and kitchen ranges. In 1863 786 houses, 15 warehouses and 5 factories were erected.[28] A yearly average of 550 houses was maintained between 1861 and 1881.[29] In 1864 three founders were described as kitchen-range and stove-grate manufacturers. Samuel Wright gained a corporation contract for the supply of gas-lamp standards. Many drains and gratings in use today bear the inscriptions of " Potter ", " Cort & Paul ", " Goodwin & Barsby ", or " Gimson ", all firms in existence during the later nineteenth century. Most of the iron-founders had only small businesses. Samuel Russell's records show that he had between three and four employees in 1880. Four years later the figure fluctuated between 10 and 17, suggesting uncertainty of employment and fierce competition.

We have a good description of one of these later firms. Goodwin & Barsby began their business in 1871 with a capital of £250.[30] Formed purely for the purpose of making builders' ironwork the firm occupied premises vacated by a shoe manufacturer in Church Gate.

> " The premises consisted of a long building used as a fitting shop in which there was a horizontal steam engine driving several drilling machines and the fan for the cupola. In the yard was a pattern shop and office, while the foundry was a wooden shed with a cupola in what had been a garden among fruit trees and shrubs."[31]

As with most other foundries there was a lack of capital. A travelling crane that was needed could not be obtained until Barsby's elder brother became an additional partner, contributing £400. Many less fortunate firms did not survive the lifetime of the founder-proprietor. Where there was a large family interest, capital accumulation became easier. After its chequered early history Russell's foundry increased its capital by as much as £23,908 between 1897 and 1916, mainly because there were energetic sons and grandsons entering the business. Goodwin & Barsby were later joined by Robert Pochin, a rich ironmonger, who was not only maintaining his own supply of ironmongery thereby, but also providing further opportunties for his sons. For several years, instead of claiming his share in the profits, he ploughed back all his earnings, until his share exceeded that of his partners.[32]

The largest foundry in Leicester was Gimson & Co., also due to the energy, initiative and perseverance of one family. Josiah and Benjamin Gimson were apprentices at the Britannia Foundry in the 1830s, and founded their own business in Welford Road in 1840. By the middle of the century the business was well established, and Josiah was clearly in charge. His original premises were inadequate and scattered, so between 1876 and 1878 he took the chance to develop a new site " on the south side of the main midland railway line, covering an area of $3\frac{1}{2}$ acres ".[33] Here the foundry work was only one aspect of an engineering enterprise with a wide range of products. The foundry building measured 180 feet by 62 feet. All the lifting was performed by steam hoists and travelling cranes. The whole works employed about 350 workers.[34]

The increasing use of machinery and the consequent growth of factory industries in Leicester after 1845 brought about a need for steam engines. Many were made locally, most of them by the larger iron-founders, like Gimson & Co., but many small firms also took part. None ever completely specialized in this, and production began to decline rapidly with the introduction of the gas engine in 1873. The rise and fall of steam-engine manufacture was reflected in the making of agricultural machinery and implements. In 1837 the trend towards the laying down of pastures in Leicestershire changed and a revival of arable farming began, which reached its peak between 1853 and 1863. This encouraged the development of agricultural-machinery making in Leicester. Gimson & Co. were making compact steam engines for use on farms in 1847. " They are made from two-horse power upwards; the whole—boiler, furnace, and engine, occupying but little room, very compact—are placed upon four wheels and can be drawn to any part of the farm, or the wheels can be removed, and the engine permanently fixed in the barn or other building ". There were also threshing machines " specially adapted for these portable steam engines ".[35] Others too were making agricultural machines as a sideline.

By 1864 there were three agricultural-implement makers working in Leicester. They appear to have become completely specialized, since their names were not duplicated elsewhere in the Directory for that year. One was William Goulding, who had been described as a plough-maker ten years earlier. Goulding was a genius in this kind of work. At his Short-Street works in Church Gate he was making, only four years later, a type of plough which was reputed to " cut and lay the furrow slice at a Right Angle ".[36] This plough won prizes at Agricultural Shows in Lichfield, Cannock and Cheadle. He was also making root pulpers, oil-cake mills, corn crushers and chaff-cutting machines. In spite of his technical ability Goulding's business was not a success. He lacked capital, became insolvent, and was forced to sell the business to Hunt & Pickering, who had been his main competitors, and to whom he now became an employee.[37] While employed with Hunt & Pickering five of Goulding's machines or implements won prizes awarded by the Royal Agricultural Society at the International Exhibition of 1862.[38] As a result the business grew appreciably. The agricultural-machinery branch

of engineering was an interesting development, for there was hardly a market town which did not have someone engaged in it. With the growth of American competition and the decline of agricultural prosperity in the 1870s struggles to maintain solvency were increased. Firms either expanded to face the competition, or they succumbed to it. The industry was concentrated in a few centres, and Leicester's share gradually disappeared.

While the manufacture of agricultural machinery was declining other important developments were taking place in the rest of Leicester's heavy engineering industry. Before 1845 few foundries had been completely integrated with engineering shops, but the tendency toward integration grew progressively stronger. There were sound reasons for this. Foundries could weather economic storms better if a machine-making side to the business was developed which could absorb the foundry products, whose markets were limited. While it was often possible to sell machines outside the immediate area of the town it was not so easy to sell castings far afield. Samuel Russell's castings had not found customers any further away than Loughborough, and his two customers there absorbed a very small proportion of his output. Ninety per cent of his castings were used in Leicester. The history of Goodwin & Barsby illustrates the growth of integration. In 1887 the partners bought Mason's, a firm which had turned from making agricultural machinery to stone-crushing machinery. Thus they added the making of the latter to their earlier business of making builders' ironwork. For a time they had difficulty in establishing themselves in the market, but after 1897 the record book "shows a steadily increasing output of quarry plant".[39] Other similar transitions from simple foundry work to heavy engineering in the true sense occurred round about 1900, though in most of them the beginning of integration may be traced back several decades. W. Richards & Co. turned to steel roofing, railway and road bridges, engine and wagon turntables and stone-crushing machinery.[40] Gimson & Co. turned to many branches of engineering, and in the heavy-engineering branch, was making " pumps for water supply, sewage disposal, breweries, either belt, electric, or steam driven ".[41] Sometimes the integration occurred from the other direction, so that general engineers would be more certain of their supplies of casting. When Frank Ashwell had turned to the making of heating and ventilating plant his castings had had to be made by George Illston. When Illston retired Ashwell bought up his foundry.[42]

By 1914 heavy engineering was well established in Leicester, although in numbers of employees this branch of the industry was still exceeded by those firms making hosiery machinery.[43]

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