

Richard Johnson & Nephew Ltd

The Museum holds company records and artworks for Richard Johnson & Nephew Ltd, ironmasters and wire drawers of Bradford, Manchester. Part of a Bedson-designed rod rolling mill is on display in the Museum, along with a presentation display of three gold-plated cable dies.

The company that became Richard Johnson & Nephew Ltd began in 1773. James Howard, a wire worker and pin maker, set up a wire drawing business in Market Street, Manchester. In 1804, he moved the business to Long Millgate. By 1818, John Johnson was running the company in partnership with Thomas Sharrocks from larger premises in Withy Grove. By 1828, the company had expanded and moved premises again, to Edge Street on Shude Hill.

John Johnson's sons, Richard and William Johnson, took over the business in 1838. Richard and William changed the company name to Richard Johnson & Brother. At the time, the company carried out wire drawing in premises in Dale Street and Lees Street, Ancoats. By 1854, the company also had a wire galvanising plant in Mill Street, Ancoats, and a site in Bradford, Manchester, for the manufacture of puddled iron. The Bradford site also had a billet mill, where iron ingots were rolled into billets. The site later became known as the Bradford Iron Works.



Portrait of Richard Johnson

In 1860, William Johnson died and the brothers' nephew, John Thewlis Johnson, joined the company. He became a partner in 1865, and the company's name changed to Richard Johnson & Nephew.



Engraving of George Bedson

At the start of the 1860s, the company introduced two manufacturing innovations which revolutionised the wire industry. In 1860, George Bedson introduced the first continuous galvanising plant at the company's Mill Street works. Bedson was the company's Works Manager from 1850 until 1884. In 1862, Bedson patented the world's first successful continuous rod rolling mill, which operated at the Bradford Iron Works. These machines sped up the wire-making process at a time when demand was rising rapidly. In 1864, the galvanising process moved from Mill Street to Bradford. The company bought additional land in Bradford to accommodate the new galvanising plant. At the same time, the Lancashire & Yorkshire Railway established a goods yard on land which lay alongside the galvanising plant. Richard

Johnson & Nephew had offered the railway a guaranteed minimum traffic of 200 tons of wire per week.

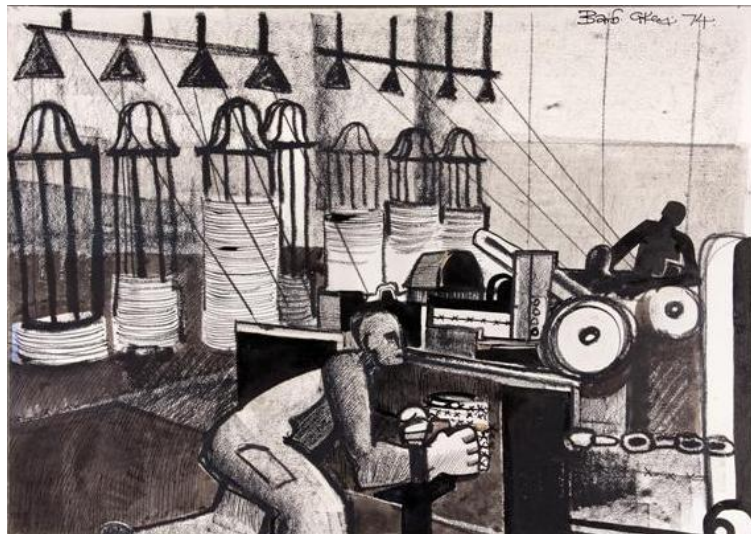
The company supplied galvanised armouring wire for the 1851 Dover to Calais submarine cable and for the first transatlantic telegraph cable in 1857, as well as wire for use in the construction of suspension bridges. Bridges using Johnson wire included the Niagara and Cincinnati Suspension Bridges. On its construction in 1866, the Cincinnati Suspension Bridge was the longest suspension bridge in the world.

John Thewlis Johnson died in 1896 and his sons Herbert and Ernest Johnson took over the management of the company. At the start of the twentieth century, demand for wire grew in countries such as South Africa, New Zealand and Argentina. The company expanded into these markets by supplying wire used in fencing. In 1904 the company began manufacturing copper wire for a local telegraph cable company, W. T. Henley. By the outbreak of the First World War, copper wire had become an important part of the business.

In 1877, the company bought the sole licence to manufacture barbed wire under patent across Britain. During the First World War, demand for barbed wire increased. In 1918, Richard Johnson & Nephew further extended the Bradford Iron Works to set up a new rod mill. This mill produced additional rods to meet the increased demand for barbed wire.

In 1927, Richard Johnson & Nephew purchased an American patent jointly with Rylands Bros. of Warrington, which allowed them to introduce a new method of galvanising wire. The new process involved coating wires in zinc to give better resistance to corrosion. One of the first customers for wire galvanised by this process was the Central Electricity Board, which needed steel-cored aluminium conductors for the National Grid. Richard Johnson & Nephew produced the aluminium wire in its copper wire mill, stranded it in its new stranding plant and galvanised the wire using the new procedure. The company supplied over 60% of the conductors for the Grid.

During the Second World War, the company supplied galvanised armouring wire for use in the pipe line under the ocean (PLUTO). The company also produced a large proportion of the copper tape and steel armouring wire used in the first transatlantic telephone cable in 1956, almost 100 years after its involvement with the first transatlantic telegraph cable. In 1973, Richard Johnson & Nephew merged with Thomas Firth & John Brown Ltd, becoming Johnson & Firth Brown. The Bradford Works closed in 1986. The site is now part of the Sportcity complex and was excavated by archaeologists in 2010.



Lithograph showing the manufacture of barbed wire at Richard Johnson & Nephew Ltd, from a painting by Geoffrey Key.

For more information:

Consult Richard Johnson & Nephew archives in the Collections Centre.

Visit Bedson-designed rolling mill in the Revolution Manchester Gallery.

Read Seth-Smith, Michael. *Two Hundred Years of Richard Johnson & Nephew*. Manchester, UK: Richard Johnson & Nephew Ltd (1973).