CIBSE HERITAGE GROUP

Newsletter No.35 June 2016

Last December the Heritage Group visited the Maybrey Reliance Foundry

The history of the company can be traced back to 1839 when George England founded the Hatcham Iron Works and began the manufacture of screwjacks and weaving machines, but soon changed to the production of railway locomotives for which the company became famous, winning a Gold Medal at the Crystal Palace Great Exhibition of 1851. At the turn of the century the company became the General Engineering & Boiler Co. In 1935, the Reliance Foundry was formed becoming Maybrey Reliance in 2002, now located in Greater London.

Little Giant locomotive built in 1867

Princess locomotive from the 1860's

The foundry specialises in the production of aluminium die casings as well as the sand casting of specification iron, bronze and aluminium, supplying the aerospace, defence, agriculture and building conservation industries, as well as producing parts for vintage cars and Formula-1 engines.

The Heritage Group in the Quality Control Laboratory

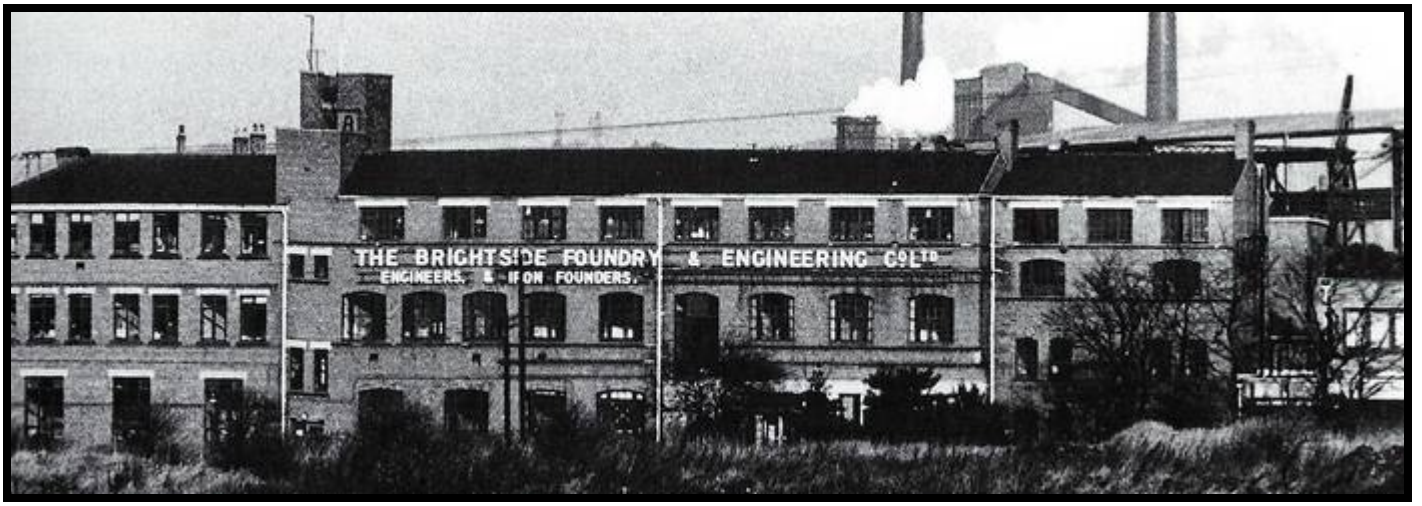
Visiting the Heat Treatment & Finishing Department

During a tour of the Belvedere foundry, organised by Heritage member Chris Sugg, the Group saw aluminium die-casting operations, the production of sand moulds, the pouring of larger castings and breaking open of the moulds, the work of the Quality Control Laboratory and the final finishing and heat treatment department. The Heritage Group thanks Doug Hills and Neil Watts for their assistance in connection with the visit.

Iron and steel foundries and the heating industry

Foundry operations in 1885

The Boulton & Watt Foundry in 1908 under new ownership

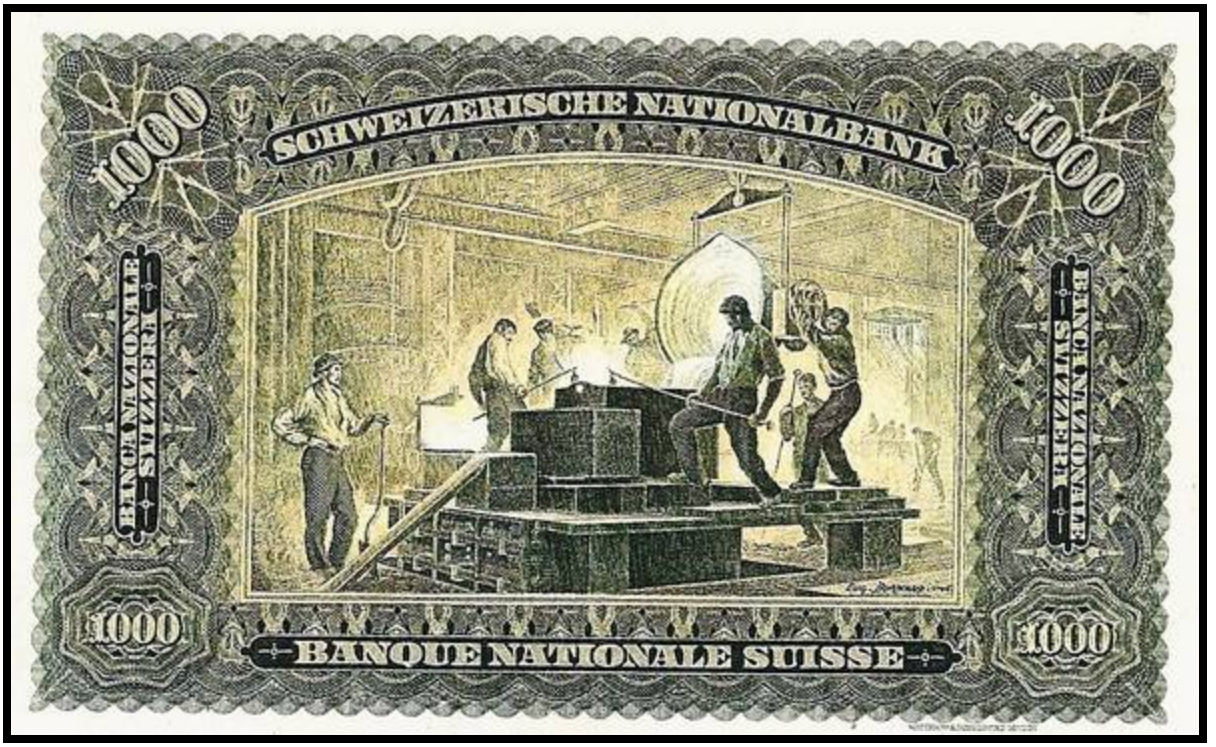


The Brightside Foundry, Sheffield, was established in 1865 though one report says it was in operation in 1756

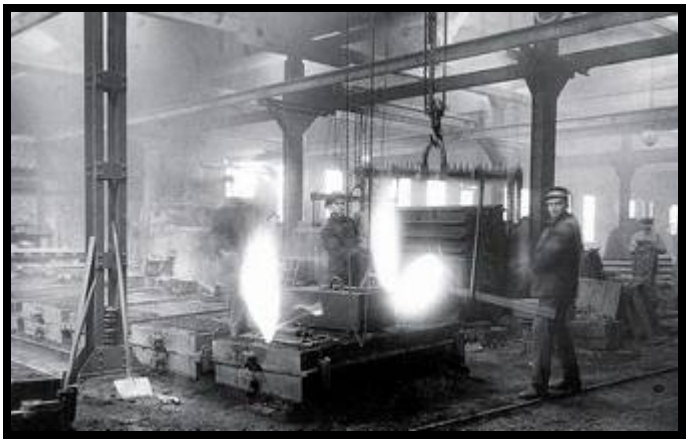
Technological developments in iron and steel manufacture led to the mid-19th century establishment of the British low pressure hot water heating industry. Steam boilers remained largely for industrial and locomotive applications. In Yorkshire, the boiler maker Robert Jenkins was set up in 1856. Others followed: Lumby in 1858 and Hartley & Sugden in 1867, both in Halifax. These boilers were of the wrought iron and steel welded or riveted type. By the early 1900's there were several other boiler makers including Steven Bros of St Andrew's Wharf in London, Graham & Fleming in Halifax and the Beeston Foundry in Nottinghamshire, the latter producing both boilers and radiators of cast-iron in sectional form. Radiators were also manufactured by the Coalbrookdale Company, Wontner-Smith Gray in London and by G N Haden in Trowbridge.

From the 1850s, primitive sectional radiators were developed in the USA. In 1874, Bundy patented a cast-iron radiator with loops screwed into an iron base. Sections joined together by nipples came later. The first British radiator patents date from the 1880's. British designs were plain while American ones were often ornate and widely imported into England. The American National Radiator Company (later Ideal Boilers and Radiators) began manufacturing radiators and boilers in Hull c.1905. Improvements in foundry techniques led to more firms making radiators including James Keith, Meadow Foundry and Rosser & Russell.

The Soho Foundry of Boulton & Watt (not to be confused with their earlier Soho Manufactory) was set up in 1795 and it was two former employees who, in 1816, established G & J Haden which became the largest and best known heating contractor in the UK, in business for nearly 200 years. Up until around 1960, their main competitor was Brightside which had its origins in the foundry business. Both Haden and Brightside joined the Heating & Ventilating Contractors' Association in 1904, the year of its founding.



Sulzer was set up in Switzerland in 1834. Its foundry was featured on this banknote of 1910



Blast furnace workers in 1901
Photographs from Buderus, founded in Germany in 1731

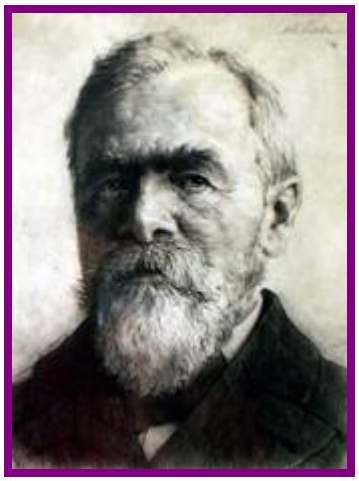
Casting sectional boilers, 1928

Lloyd & Lloyd 1894 (Stewarts & Lloyds)

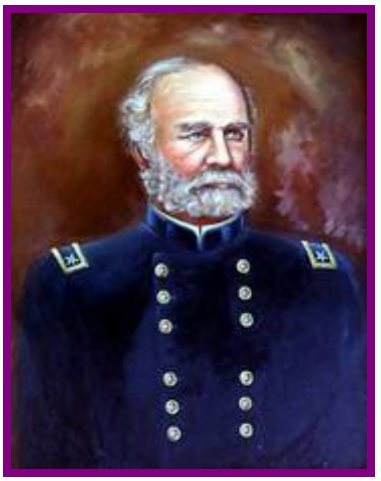
Phoenix Foundry 1897 (Longden)

Cameron & Robertson 1910

Some of the 40 BIOGRAPHIES of PIONEERS added to the Heritage Group Website



Carl von Linde

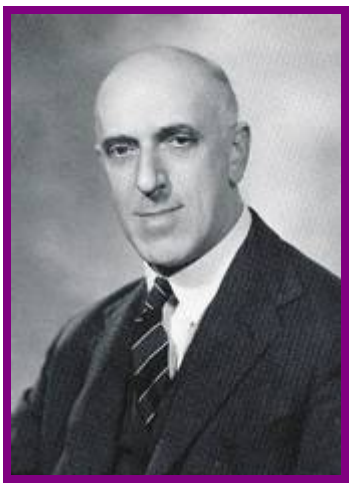


General Montgomery Meigs

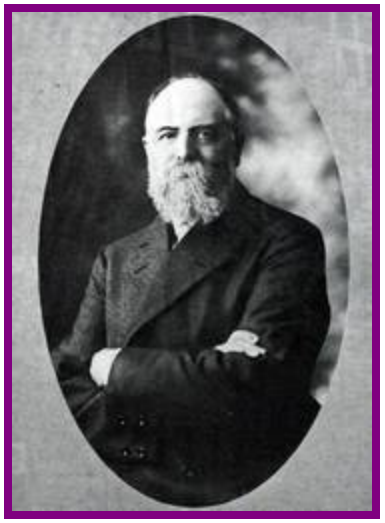
Dr Mary Pennington

Margaret Ingels

Eugene Peclet



John Robert Kell



Thomas Potterton

Warren Johnson

Nikola Tesla

The "BIOGRAPHIES of PIONEERS" link on the homepage of www.hevac-heritage.org will show all 40 pioneers