ABSTRACT: Developments in the iron foundry products and technology of John Harper & Co are reviewed, from its origins in the 1850s making white-heart malleable iron castings for locks and keys, grey iron castings for decorative hardware in the 1890s and for the electrical, typewriter and other industries in the 1920s and 30s, then Meehanite engineering castings in the 1940s and 50s and Spheroidal Graphite iron in the 1960s and '70s. The company was eventually taken over in 1974 and the foundry closed in 1982. Changes in metallurgical production processes are reviewed in relation to changing economics, management policies, markets, and technologies.

Historical background

John Harper and Company originated as a combination of several older businesses, of which the largest was Carpenter and Tildesley's Albion Works. In 1852 this was sold to John Harper and his cousin Matthew Tildesley. John Harper had managed it since 1846; he brought in some other smaller firms, and the new company took his name. In 1854 the partners moved to a new site, where the factory remained until 1950. The original business was lock-making, the major industry of Willenhall. The Albion Works had operated a foundry since 1846 (Tildesley 1971, 35), originally for making malleable iron lock components. By 1863, according to an article in The Ironmonger (Strauss et al 1863, 11), the company was also selling castings to outside customers, up to 28lbs in malleable, in brass, and in 'common iron' from 1 cwt to 'forty dozen to the pound.' In 1873 it advertised malleable castings, e.g. for telegraph line brackets (Griffiths 1873, 206 & xxii-xxv), and also coat hooks, pulleys and sash weights, which were probably made in grey iron, as well as locks and bolts.

In the 1870s the business survived trading difficulties, temporary bankruptcy and a dispute between the partners, and was eventually re-incorporated in 1888 as a private limited company owned by John Harper and his family (Tildesley 1971, 43). By then the finished product range had widened to include oil lamps, oil and gas stoves and other hardware, and the foundry was making intricate grey iron castings for these products and for the outside market (Fig 1).

In 1900 some 50 tons per week of castings were being made in five more or less separate foundries, and the proportion of castings for outside sale began to grow. After the first world war the demand for John Harper's grey iron increased, as new markets were developed for typewriter, electric cooker, and other castings, exploiting the skills which had developed to cast accurate and fine-finish decorative castings for the company's own products.

To expand capacity to meet this grey iron demand, malleable iron production was ended in 1925, and in 1928 a new foundry (Anon 1928, 261-2) was built on an adjacent site where the rest of the factory was progressively rebuilt over the next twenty years. This investment was financed by a public share issue, ending control by the Harper family.

Castings for some of the new markets, developed in the 1920s and 1930s, had demanding quality requirements, often beyond the ability of most competitors, and were consequently very profitable. On the other hand, castings for John Harper's own finished products were transferred from the foundry to the finishing departments at or below external market prices. Other low-price work was taken on to secure a consistent load for the new foundry, especially from Crompton Parkinson and F & A Parkinson, manufacturers of...