

## **The Phoenix Works, Chard - Derrick Warren**

(SIAS Survey No. 19)

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This book is the 19th survey in a worthy and technically detailed series of works published by SIAS. Derrick Warren has written several of these to a high standard over the years. This book is the tale of business innovation and enterprise, firstly by iron founder John Smith and then by engineers under the Phoenix name. Both have made a considerable impact on Chard, visually in the case of Smith and technically in the case of the latter, on the international scene by making road making and maintenance equipment. This latter was under the management of the Jennings family.

John Smith came from Taunton in 1839 and set up a brass and iron foundry in what had been a smithy behind the White Hart Inn in Combe Street. This was a time of transition of Chard from an agricultural town with a wool industry to a machine lace town with supporting engineering works. Even now, the foundry dominates blocks of buildings in between what was the north end of Chard Borough and the hamlet of Crimchard. The modern factory site and office, the former workers' houses with Smith's cast iron garden railings, the former Inn, small triangular shop and independent chapel form a fascinating group. Most are brick built and it might be conjectured that they came to Chard on its canal (in 1855, Chard Canal transported over 300 tons of bricks). Smith made farm and garden equipment and behind the inn established a large orchard and cider house. By 1860, he was trading under the name of the Phoenix Iron Works but was in direct competition with similar products with Dening's in Chard. In 1870, trade had decreased to the point that Smith was declared insolvent. Partly by selling stock and diversifying, his son carried on, re-founding the Company as the Phoenix Engineering Co. in the 1890s (he died in 1901). The factory was purchased by an entrepreneur, Edward Rusk who included engineer members of the Pownall and Jennings families in the list of investors. The first products were rugged pumps designed for dirty water or sludge operation under the worst conditions (particularly suited to Somerset!) This was also the early days of the use of tar spreaders to alleviate the dust problem arising from the use of water-bound Macadam roads. This in turn led to the production of tar-boilers and gritters. Mastic asphalt heaters for roads and roofs followed. In modern times, only the Jennings family remain but the products have moved with the times as modern needs are met by sophisticated binder sprayers, forward facing gritters and tandem rollers as examples.

With the introduction of bitumen emulsion that was particularly adaptable for small scale work, cold sprayers were produced and the reviewer remembers that in the face of competition from rivals, Phoenix typically introduced the first direct-from-drum sprayer, which is now normal use with a variety of road binders. Phoenix notably won the Queen's Award for Industry in 1977. Now for most roads, modern computer controlled road sprayers with extending spray bars are used. Today, the Phoenix brand is known world-wide, its machinery being seen on mountains and desert roads in the most improbable places. Derrick's book is a fascinating presentation of this story and is full of illustrations, including a complete 1907 catalogue. It is a must for every historical engineering enthusiast's bookshelf and he is to be congratulated for another quality production.

**Roger W. Carter**