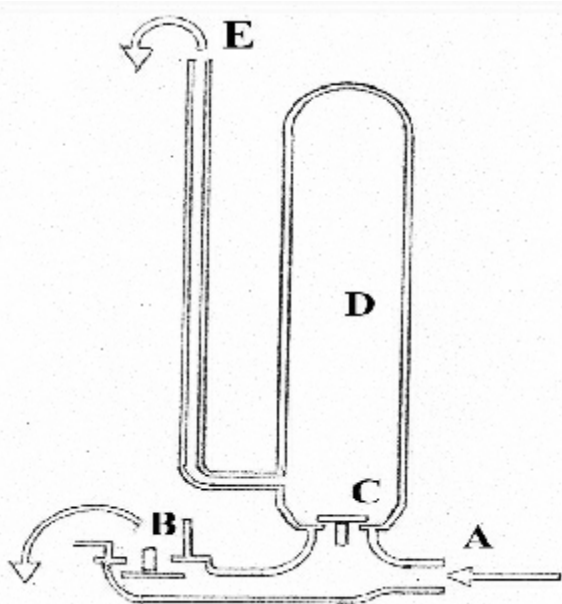


Hydraulic rams are a means of pumping water uphill using only the force of moving water. They require no external power sources so are particularly suited to remote locations where there is no power supply. They are still manufactured and are extensively used in developing countries.
(see Green & Carter website)

HOW DO THEY WORK?

Running water enters at A, forcing the escape valve B to close. The water, with nowhere else to go, forces open the delivery valve C and some escapes into the air vessel D, then the valve C closes again, causing the whole cycle to repeat (40 – 120 times per minute). The rising water level in D presses air trapped in the vessel till the pressure forces water to discharge at E



Kings Worthy Parish Council is very grateful to many people for this interesting addition to Church Green.

Among those who have been generous with money or time (or both!) are:

Alan Audsley
Derek Brockway

Green & Carter Ltd.
www.greenandcarter.com
01823 672365

Hampshire Museums Service
Kings Worthy Foundry
www.kingsworthyfoundry.co.uk
01962 883776

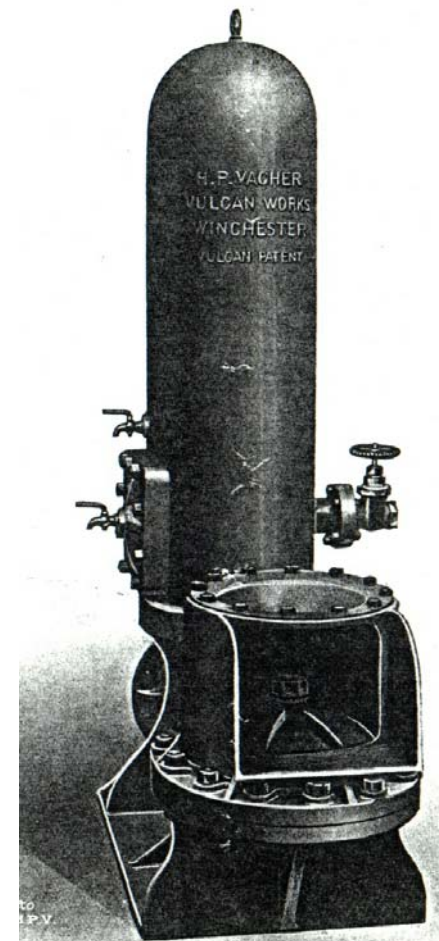
Worthy Sand and Ballast
www.worthysandandballast.co.uk
01962 883708

Worthys Local History Group
www.communigate.co.uk/hants/worthyslocalhistorygroup
or use the link on the Worthys website
www.theworthys.org.uk

The Worthys Local History Group has a useful archive collection, a programme of meetings and welcomes new members – see their website



THE RAM ON THE GREEN



THE VULCAN IRON FOUNDRY



Close to the Ram on the Green is the site of the now demolished “Vulcan Ironworks”. The hydraulic ram displayed here is representative of the principal product of a foundry established there circa 1883 by two brothers, Arthur Stuart and H Williams of Worthy Park. In successive ownerships this survived for approximately one hundred years.

The cast iron ram, in simple terms, is a self-acting pump for delivering water from source to where it is needed and did so long before mains supplies were available in rural areas.

The rural location of a heavy industrial enterprise, so far from the sources of raw materials, many years before the railway came to King’s Worthy is unusual but not unique. Demand for the finished product came largely from farms and landed estates of which there were many in the Itchen Valley.

The firm also had connections throughout Great Britain and many parts of the world maintaining a thriving export trade. This was further assisted in April 1909 when goods facilities became available at the nearby King’s Worthy railway yard allowing raw materials to come by rail.

Arthur Williams died in 1888 and the firm was acquired by Herbert Perkins Vacher (later Mayor of Winchester) under whom the business progressed although it was later badly affected by the disastrous fire which totally destroyed the works on the evening of 19th September 1907.

The buildings, made mainly of corrugated iron on wooden framing, where molten iron was being cast were vulnerable to fire. However, helped by an insurance payment, they were quickly and totally re-built by 1908 with extra facilities on an enlarged site of about 0.675 acres confirming the growing success of the business under Vacher’s direction.

The business continued to flourish becoming renowned in Vulcan’s field of engineering. Vacher retired in 1913 when the firm was bought by the works foreman, Robert Green (an apprentice and employee since 1890) with a partner, George Butler-Carter. Carter died soon after but Green continued and introduced several patented improvements to the product.

Messrs Green & Carter were involved in war work in both major conflicts. After the Second World War a second foundry was established by William Peake on a further enlarged site known as Kingsworthy Foundry Company Ltd specialising in municipal castings: gratings, rainwater gutter and pipes, manhole covers and frames etc. Vulcan remained involved with ram work.

The foundry and engineering works closed in September 1982 and the site was eventually cleared and occupied progressively by different businesses. That of Messrs Green & Carter continues in Somerset and is still engaged in the manufacture and refurbishment of the hydraulic ram for which, even in modern times, the demand continues.