

Exploring Kett's Heights – evidence of the Gas Works

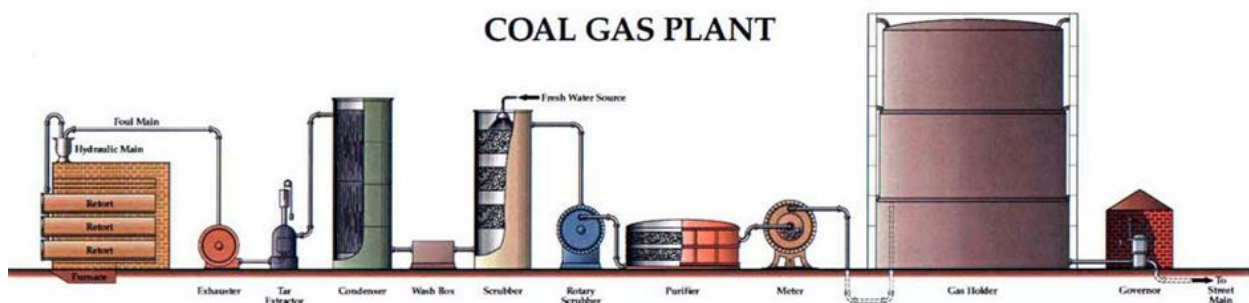
Can you spot these curved bricks on Kett's Heights?

The many terraces on Kett's Heights were built as pleasure and market gardens in the 19th century when the site was owned by the Gas Company. The retaining walls were built of a variety of materials – bricks, flints, and these distinctive curved blocks, which are pieces of the retorts used to make the gas.



Coal gas was made by heating coal in a closed tube called a retort. The retorts were stacked three or four high and an iron door was used to seal the ends. The retorts were filled with coal, and then heated indirectly by coal fires, which caused the coal in the retorts to be converted to coke and gas.

The gasses given off – mainly hydrogen and carbon monoxide – passed through a water trap ("hydraulic main") and were then cooled in a condenser, where tar and some other liquids were removed. The gas then passed through a purifier to remove sulphur compounds and other impurities before being used or stored in a gas holder. Although the coke was a by-product of gas production, it had a commercial value and was used as fuel.



In the early days of coal gas manufacture, the retorts were made from iron, but, as production increased, brick was used to reduce costs. You can see the remains of two types of brick retort in the walls on Kett's Heights:-

- ❖ one made from full circular pipe sections, and joined together with intumescent (ie something that swells when heated to form a strong seal) strips to achieve the desired length;
- ❖ the other type is formed from individual radial sections joined together with intumescent strips to form a pipe section, which are again joined to achieve the desired length.

When assembled the retorts would be approximately 24cm in diameter. One of the Friends of Kett's Heights has reconstructed both types of retort to show what they would have looked like.



Circular pipe sections



Radial sections



Here you can clearly see the groove where the intumescent seals would have joined the sections together.