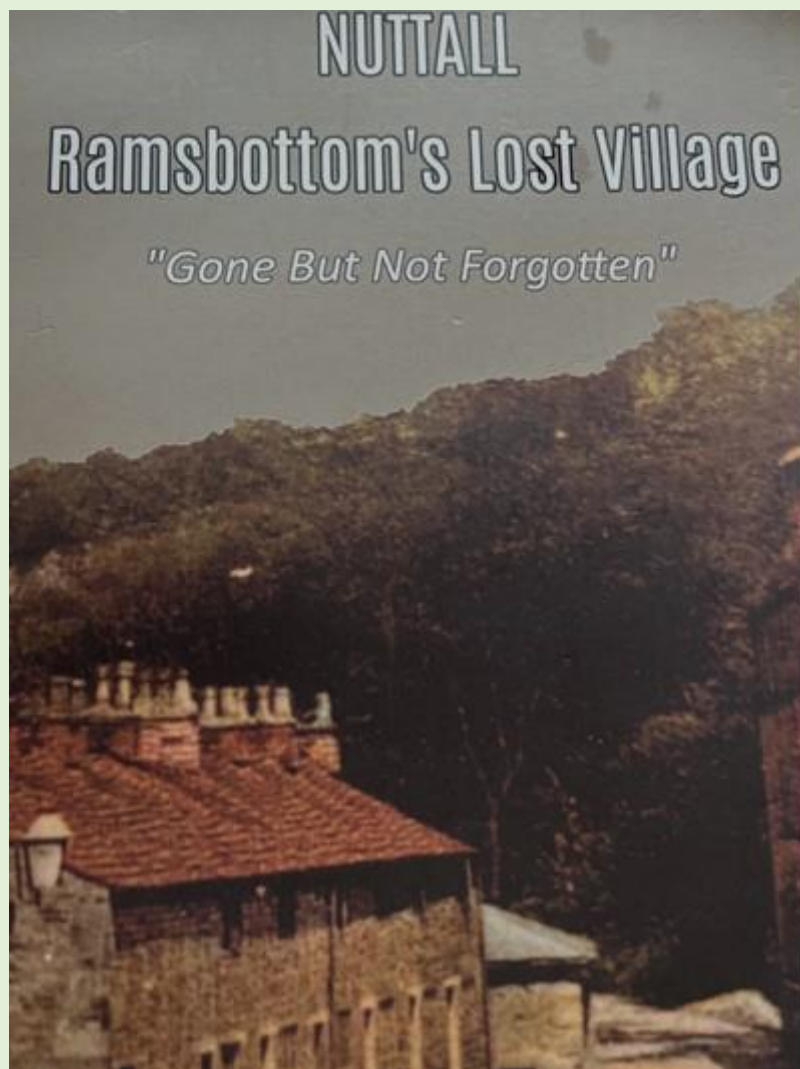




# Ammonia and Hydrogen

One hundred years ago - and close to home



The community may forgive slight diversion from the usual strategic documentation which appears here and brought a chuckle.

In recent years, I've been traversing the globe training blue chip companies on ammonia and hydrogen. Is often an impression that it's a relatively new combination for the fifth Industrial Revolution

Perusing a local history book, it was rather startled to find that ammonia and hydrogen were already in production here in Lancashire over 100 years ago. It was, furthermore, also, partially 'green' with powered by cleverly engineering the local river.





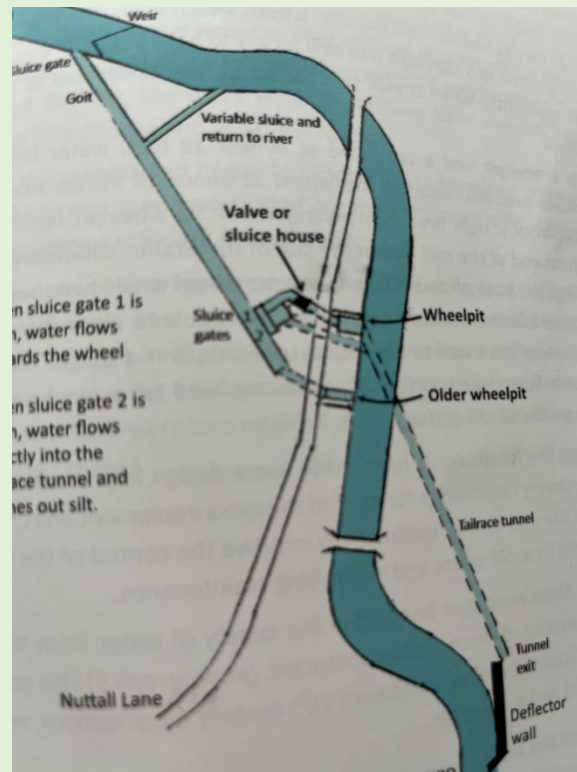
*Ocean Chemicals October 1928 looking south west towards Nuttall*



*1928 Photos and numbering done by company to identify key buildings, such as towers and settling tanks.*



*Cell Room where caustic liquor was made*



## The Alkaline Side

### Chlorine gas

The cell room housed the manufacture of chlorine gas by electrolysis of a salt solution. It was 202 feet long, 52 feet wide and 13½ feet high to the eaves. Brine was obtained by dissolving rock salt (from Cheshire) in huge mixing tanks. The salt was fed into the tanks using an elevator. The brine passed into settling tanks and was pumped out and evaporated to give the required concentration of salt in the solution. Hydrochloric acid was then added to neutralise the brine before it was pumped into the cells. Graphite anodes and cathodes were used to pass a DC voltage of 4½ and a current of 2000 amps through the salt solution, producing chlorine gas at the anode and hydrogen at the cathode. The chlorine gas was removed using fans and blown through sulphuric acid to dry it, while the hydrogen, which had no use, was vented into the air. The other by-product was caustic soda, which was filtered and then evaporated under heat and vacuum to the correct concentration for use in house or to be sold to other companies.



Stay informed; <https://bit.ly/3lb7XRH>, [Ammonia and Hydrogen](#)

