

John Steer tells the story of the chemical factory on the Cleddau

'The Chemicals'

WALKING along the tranquil shore of the River Cleddau near Coshaston it is hard to imagine this was once the centre of the chemical industry in Pembrokeshire.

Situated at Whalecwm was a thriving business that operated for over 40 years from around the middle of the 19th century. Started by David Morgan and his son-in-law Thomas Howell, this factory – known locally as 'The Chemicals' – produced charcoal from waste timber from their shipbuilding and timber merchant's business and extracted valuable chemicals in the process.

In the early part of the 19th century the process known as 'the destructive distillation of wood' had been developed.

The wood was heated in large metal cylinders with a reduced oxygen supply. Unlike the process carried out from ancient times in the forests by charcoal burners, in the industrialised process the liquids and gases given off were retained.

Wood tar and pyroligneous acid were drained off and further heating and condensing produced naphtha (wood alcohol or methanol).

By adding slaked lime, acetic acid and acetate of lime were produced which had valuable industrial uses.

An account of production at the Brechfa works described the process of producing the lime salt (acetate of lime) as being akin to churning butter. The lime salt was precipitated and packed in sacks.



The impressive stone warehouse on the shore at Whalecwm.

Naphtha was used in lamps and as a solvent. Some of the by-products such as tar would have had uses in the local shipbuilding industry.

Many similar factories were being built at the time, including several in Carmarthenshire by the Chivers family at Brechfa, Kidwelly and Carmarthen (near the site of the present railway station). It seems that the only one in Pembrokeshire was at Coshaston.

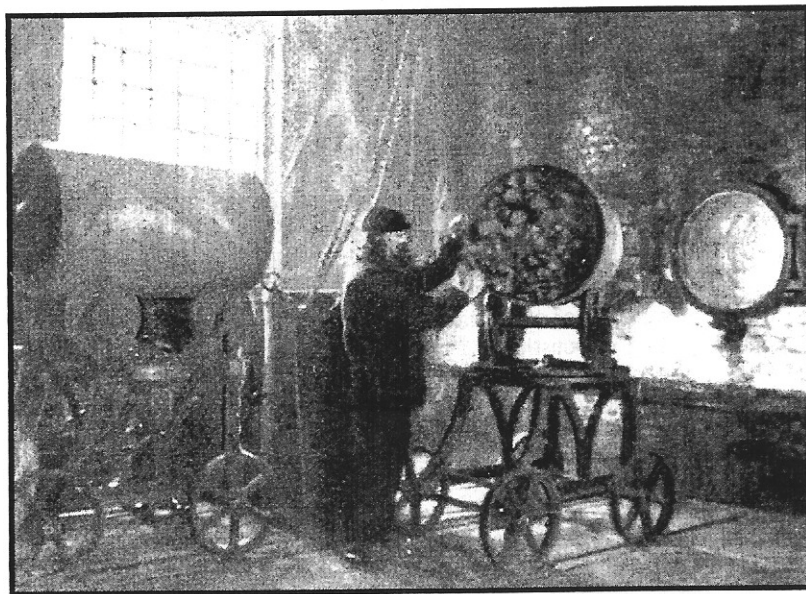
David Morgan ((born 1808) and his wife Dinah are listed in the 1841 census as living at Bumbly Wells, Jeffreyston. He was farmer and stonemason and is reputed to have built a street of houses in Pembroke Dock.

Their only daughter Mary (born 1834) married Thomas Howell a shipwright from Llanstadwell. (See panel by Bill Griffiths, right).

Thomas set up a shipyard near Jenkins Point where the Coshaston horse-ferry across the river to Lawrenny was situated.

The impressive stone building that still stands on the shore at Whalecombe was possibly built as storage for the chemical works and shipyard. The building adjoining is part of the original chemical works.

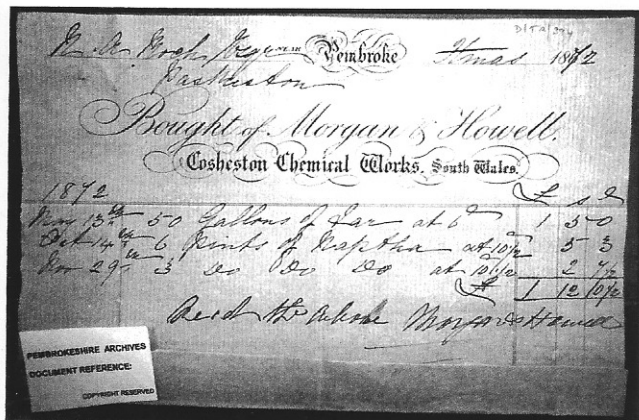
There are open tanks shown on old maps which were probably used for condensing during the distillation process.



The interior of a typical naphtha factory of the time showing the wood being heated in large metal cylinders in order to retain the liquids and gases given off.

DAVID Morgan and Thomas Howell went into partnership as shipbuilders in the late 1850s and the chemical factory seems to have been a spin-off from the shipyard

By 1871 Thomas and family were living at 'The Chemical Works' and he is described as 'naphtha manufacturer and shipwright'. David Morgan had moved to Blackpool Farm (by Blackpool Mill) by this time to become a miller.



An invoice from the Chemical Works to a local farmer.
Image courtesy of Pembrokeshire Archives.

He probably had little to do with the everyday running of the factory, but the families remained close and the Howell children are known to have spent a great deal of time with their grandparents at the Mill.

From the beginning there was always a foreman employed at the Whalecwm factory, and for such a technically complicated process some outside expertise must surely have been needed. In 1891 John Roberts was described as 'foreman in chemical works'.

Thomas Howell died in the 1870s, but his widow Mary carried on for many years as 'chemical works and timber yard proprietor and farmer', latterly in partnership with her son Morgan – a billhead from 1898 describes him as 'timber merchant and chemical manufacturer, Coshaston Chemical Works'.

By the turn of the century, manufacturing seems to have ended. Petroleum products had been developed by that time, such as paraffin for lamps, and naphtha was out of date.

Morgan married and moved to Saundersfoot, but the redoubtable Mary Howell was still living at Whalecwm House in 1901, described in the census as 'retired chemical manufacturer'. Her daughters Florence and Lilian were dairy farmers by this time, and they carried on living at Whalecwm and using the old warehouse building for their dairy business. Florence, a talented writer, died in 1946.

• I would be extremely interested to have any further information on David Morgan and Thomas Howell and their industrial enterprise in rural Pembrokeshire.

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Whalecwm House – the family home.

Dairy farmers and writers

THOMAS Howell was born in Llanstadwell parish in 1826. He married, in 1855, Mary, only child of David Morgan and Dinah (Thomas), who lived at Bumbly Wells in the parish of Jeffreyston.

David carried on a successful business as a builder, being responsible for constructing several terraces in Pembroke Dock, but decided to move to Blackpool Mill in the 1860s which he rented from Edward, Baron de Rutzen of Slebech.

Initially David Morgan and Thomas Howell were in partnership as shipbuilders at Whalecwm and David James in his book *Down the Slipway* (2006) lists the ships built by Morgan and Howell between 1861 and 1879, including five schooners and a smack.

Thomas and Mary Howell had seven children.

- 1, William Howell, born 1859, died young.
- 2, Catherine Howell, born 1860, died young.
- 3, Mary Howell, born 1862, died young.
- 4, Dinah 'Daisy' Howell, born 1864, became a nurse at Guys Hospital and a midwife and was the authoress of essays and stories. She died of TB in 1908.
- 5, Morgan Howell, born 1866, was educated at Mr Goward's School in Tenby – the forerunner of Greenhill Grammar School. He became a timber merchant at Whalecwm. In 1903 Morgan married Margaret Ann, only daughter of John and Katherine Rees of Railway Street, Saundersfoot. They lived at Bonville's Court where their children Avis and Vivian were born; the 1911 census described him as 'farmer and haulier'.

6, Florence Howell (right), born September 1869, was educated at Mrs Goward's School for Girls in Tenby along with her sisters Daisy and Lilian. Florence was a talented and successful writer of short stories and a collection called *Stories at the Mill* was printed in 1969 with a foreword by Morwyth Rees of Manorbier. Florence also wrote a number of plays, often set in Pembrokeshire, and *Jane Wogan* won the prize for the best one-act drama at a competition in Bristol in 1934. Several of her scripts were broadcast on the wireless.

7, Rose Lilian Howell, born in 1871, remained with her sister Florence at Whalecwm House where they became dairy farmers, bred cattle and operated a milk round.

THE Chemicals employed a number of labourers – 48 in 1881 – many of whom would have arrived for work by boat. In 1891 these included John Jenkins from Carew, John Roberts from Reynalton, John Harts from Little Tедion, Lawrenny, and William Griffiths from Lawrenny.

Bill Griffiths

