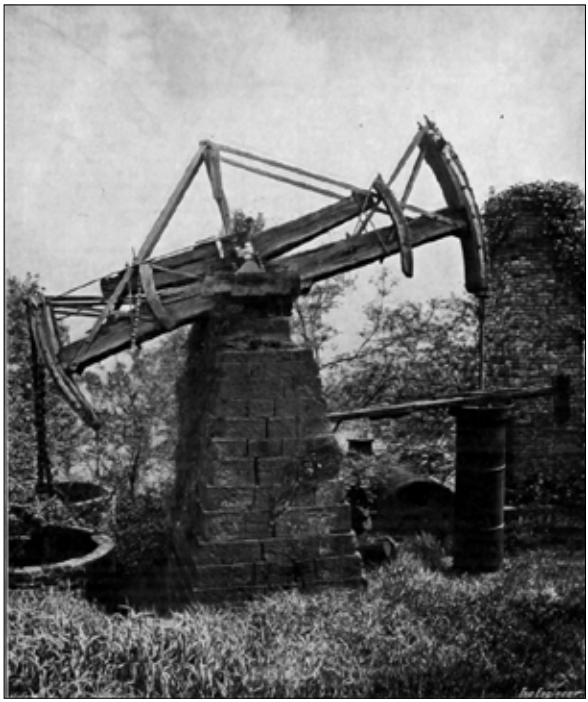
Along the Line

Fairbottom Bobs

A series featuring points of interest along the line of the canal, past or present.

In an obscure location, reached by a footbridge across the River Medlock, lies the site of a wonder of local industrial history, known as Fairbottom Bobs. The woods have grown back now and a few crumbling ruins are all that is left to show that the area was once a bustling hive of activity and home to an important industrial relic.

Fairbottom Bobs was the name given to a steam engine that had been installed there to pump water out of a coal mine in the valley known as Fairbottom. The 'Bobs' nickname apparently came from the bobbing motion the beam of the engine made as it rocked up and down while drawing the water up the pit shaft. It had a cylinder of 28 inch diameter and could raise water from a depth of 240 feet at a rate of 14 strokes per minute.



Jackson Brothers, photographers from Oldham, who came to photograph the steam engine in 1861, captioned it as "Watt's First Engine". However, this was an inaccurate description, as it was built several decades before James Watt developed his engine and was in fact an example of Thomas Newcomen's atmospheric engine.

It is thought that this particular engine was originally installed at Norbury Colliery, situated close to what is now the A6 between Hazel Grove and High Lane. The first pit in Norbury Hollow opened in 1707 and water that seeped into the workings

Photo by Jackson Brothers, 1861

was originally pumped out using the power of a water wheel fed from the nearby Norbury Brook. This early mine was known as 'Old Wheel Pitt' . However, when the owners wanted to sink a deeper shaft to explore further coal seams, the water wheel could not provide enough power to extract water from deeper levels.

Thus they invested in one of Mr Newcomen's atmospheric engines (or 'fire engines' as they were also known) at the huge cost at that time of several hundred pounds. Newcomen had invented his atmospheric engine in 1712 and it is thought that the Norbury engine was purchased some time between 1730 and 1750.

By 1764 these coal seams were becoming exhausted and the company needed to sink an even deeper pit. They needed a larger, more powerful engine to raise water from these greater depths so they placed an advertisement in the Manchester Mercury offering their existing engine for sale. (*See panel, below)*

To be SOLD, at Norbury Coal Work, near Stockport, in Cheshire:

A FIRE ENGINE

with all Materials thereto belonging, Cilinder twenty-eight Inches Diameter, and work in an eight Inch Bore, draws the Water eighty yards deep, and discharges one hundred and ninety five Hogsheads in an Hour. The Reason of its being parted with, is occasioned by sinking to a lower mine, and obliged to have a larger Engine. The above will be sold upon reasonable Terms, and ready to be removed May day next 1765.

For further particulars Enquire of John Sergeant at Norbury aforesaid, who is Engineer to the same.

This engine seems to have been purchased by the Fairbottom Coal and Cannel Company in 1764 and transported to Fairbottom the following year, to drain water that was finding its way into the cannel mine workings there. Cannel is a bituminous coal that has similarities to oil shale. It burned with a bright flame (hence its nickname 'candle coal') but made a lot of smoke. It was sometimes used for making oils and gas. The engine bobbed away for the next few decades, efficiently fulfilling its purpose.

The Fairbottom Branch Canal opened around 1797 with its terminus at Fenny Field Bridge, not far from the Fairbottom pit. It had been originally proposed that the canal would continue to Park Bridge, but this would have involved additional locks and considerably more expense. Instead, a tram road was constructed to carry pig iron to the iron works at Park Bridge and bring coal down to the canal *(see Spring 2018 Newsletter)*.

A weir was constructed upstream which raised the water level in the river and fed a sough or channel which took water into the canal head at Fenny Field. A small aqueduct alongside the road bridge carried this water channel. It is thought that water pumped from the Fairbottom engine was fed into this channel and so into the canal.

Around this time the Fairbottom engine was in need of improvement and renovation. In 1801 the canal company was approached and asked to contribute to the costs of its refurbishment. It is not known whether or not the canal company contributed but work was carried out by Bateman and Sherratt, engine builders of Manchester, and included replacing the old 'hay stack' shaped boiler with a more efficient 'wagon' style one (named because its shape resembled a covered wagon).

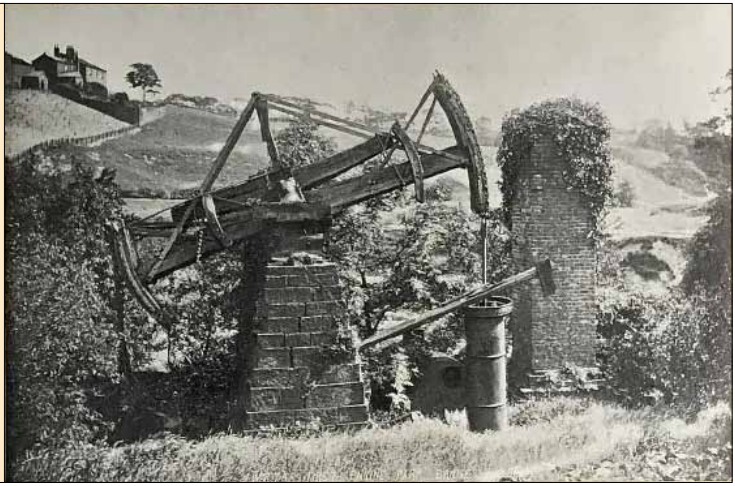
Photos by Jackson Brothers, 1861, clearly showing the boiler shaped like a covered wagon.

The Fairbottom pit appears to have been worked out in the 1820s, although others nearby belonging to the same company were still working and their workings continued to be drained through the Fairbottom shaft until the engine was abandoned around 1826.

As mentioned above, in 1861 the Jackson Brothers of Oldham took a number of photographs of the remains, incorrectly calling it 'Watt's First Engine'.

A writer visiting the valley in 1881 described the engine as "a huge, ungainly structure of rusty iron and wood, resembling half a dozen old church beams bound together with iron rods and

Charles Arthur Jackson returned around 1890 to take this photograph of the engine for his 'Souvenir of Oldham' album.



beams, and mounted in the fashion of a lifting crane on top of a crumbling pile of ivy-grown masonry." It was in an "advanced state of decay" and was "grimly picturesque in its strange contrast of clumsiness and ruin".

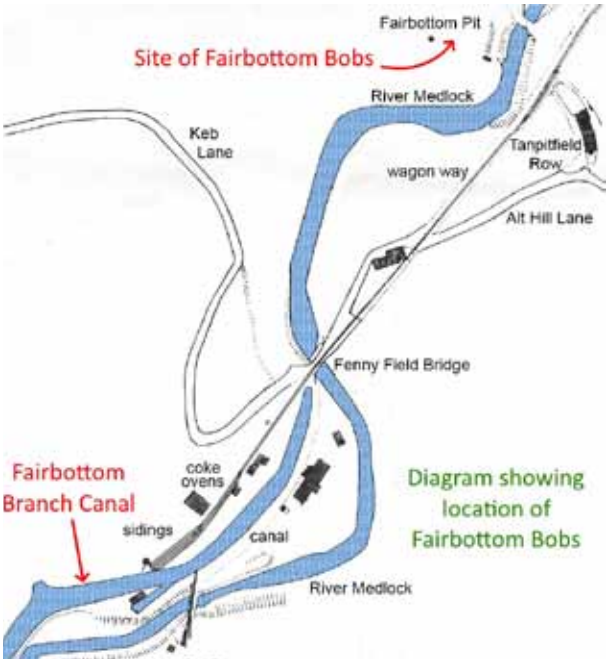
Charles Arthur Jackson returned around 1890 to photograph the engine for his 'Souvenir of Oldham' album.

Although the engine was regarded as an ancient relic to marvel at and capture in photographs, there was little interest in Victorian times in preserving and restoring industrial artefacts.

The remains continued to decay until, in the 1920s, they came to the attention of Herbert F Morton, agent for American motor car magnate Henry Ford. Morton found the engine had been derelict for a hundred years and was in poor condition.

Lord Stamford, owner of the site, permitted the engine to be removed for preservation in Ford's museum at Dearborn, Michigan.

The engine and its masonry were dismantled, with all the stones and cast iron gearing fragments numbered, and re-assembled in



the museum. Its wooden beam was too rotten to be preserved and so a replacement was made. The boiler was also taken but was replaced in the museum by a more compact boiler.

Only foundations and the boiler chimney were left behind, the chimney surviving until the 1990s.

However, excavation in 1982 by the Manchester Region Industrial Archaeology Society found that a few elements of the engine were still in situ below the ground.

Nowadays all that can be seen are the foundations of the boiler and chimney and of two cottages and stable blocks that were nearby. The re-assembled and restored engine is still on display in the Dearborn Museum in America.

It seems a pity that it was left for Henry Ford to preserve the engine and that we were not interested enough in saving our own heritage. It may sometimes be wondered whether this has greatly changed.

Martin Clark

Further reading:

The Jackson Brothers - a family of photographers - John W Taylor (2019) http://bit.ly/jackson-oldham

Excavating the Iconic: The Rediscovery of the Fairbottorn Bobs Colliery Pumping Engine - Michael Nevell et al (2004) http://bit.ly/fair-bobs

Dearborn Museum - more photos of the engine in current location http://bit.ly/dearborn-bobs

Hollinwood Canal - Gerry Fanning (2000)

The Henry Ford Museum

Fairbottom Bobs in its new location in The Henry Ford Museum, Dearborn, Michigan. Photo courtesy of the Henry Ford Museum.