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A HISTORY OF THE HEBDEN MOOR LEAD MINES IN THE 19th CENTURY

M.C. Gill

The Royalty of Hebden covers the ground between Hebden Gill and Gate up Gill and is adjacent to the Grassington Moor and Yarnbury Mines to the North and North West and the Grimwith Mines to the East. The two major valleys run North-South and intersect the North-West to South-East trending veins in the millstone grit beds.

In 1803, the Tag Bale Level was driven from NGR SE 05306648 at an altitude of 1100 feet to crosscut the Western extension of the South Vein (of the Grimwith Mine) across Gate up Gill. The vein must have been poor at this point as the whole trial was on a very small scale.

Also in Gate up Gill, Old Prosperous level was put in, at NGR SE 05586705, Alt. 1140 feet, to work the Bycliffe Vein and to provide an adit for the Groove Gill Mines which it appears not to have reached. This level, thought to have been driven c.1830 passed through plate underlying the Top Grit, which contains a 811 coal seam. The coal was worked via a sub level (Beast level) in Old Prosperous Mine. The Bycliffe vein in this area was found to be five feet wide and carrying calcite and barytes but is poor in ore. A North crosscut was also driven to prove a series of NW-SE veins on Game Ing Flat,

In 1853, William Winn of Haverah Park, Harrogate, took the lease for a probationary period of three years, with an option to take a 21 year lease upon renewal. The lease was renewable with an incentive of 100 acres of coal without charge, but only if this was to be used for a steam pumping engine.

On the 11th August 1856, a lease was granted for the 21 year period to Winn and his partners, Joseph Osborne of Leeds, wool merchant, George Crossland of Huddersfield, merchant, William Shaw of Huddersfield., cloth merchant, George Cook of London., Wool broker, and Joseph Thomas of London, wool broker.

These adventurers concentrated their efforts on the Bolton Gill area; where the Cockbur Vein crosses from Yarnbury. Top level was driven from N.G.R. SE 02936543 at an altitude of about 975 feet, into Cockbur and Star Veins and a dressing floor laid out at the portal. A report in 1856 states that the mine had good ore. [29]

At this time, Winn had no smelting mill and an agreement with the Duke of Devonshire was signed on the 1st June 1854, in which the Duke undertook to smelt dressed ore at a charge of 21s per ton of lead made from ore of more than 50% yield, the company dressing the ore, the Duke providing fuel and

all the other charges. Later (after 1867) it was discovered that the 21s had been paid by mistake on the weight of ore instead of on the smelted lead. After a suit in Chancery for recovery of the overpayment, the Duke paid back £575, the estimated overcharge.

In 1856 the Hebden Moor Mining Company was formed and took Winn's Lease. This was presumably to raise the capital required to develop what was by now a mine of promise.

The company commenced an adit (Bottle level) from Hebden Gill, N.G.R. SE 027652, Alt. 875 feet, and drove it onto Cockbur, Star Providence and Chance Veins. As the ore shoot developed, a shaft was put down and equipped with pumps to work Chance and parts of Star Vein below adit. This shaft, Bolton Gill Engine Shaft was also equipped with a small whim for sinking and raising pitwork etc.

Cooks Shaft was planned to serve the Star and Cockbur veins, the workings of which were becoming quite extensive and it was commenced a little further up Bolton Gill than Engine Shaft at NGR SE 032653, Alt. 1125 feet. However after sinking a short distance very disturbed strata was met with and the shaft became unstable and was abandoned.

The company also commenced two crosscuts to prove the extension of Beevor and other parallel veins found in the Yarnbury Mines. They were Charger level, driven from NGR SE 02656499 at an altitude of 875 feet for a distance of 113 fathoms to Beevor vein; the vein at this point being in grit and very poorly mineralised.

Longshaw Level was driven from NGR SE 02686456 at an altitude of 825 feet for a distance of 165 fathoms North-East. On a plan dated 1866, Charger Level was within 10 fathoms of Beevor Vein and Longshaw Level had cut three small veins running N.W. to S.E. but none of them had been developed. Although neither level produced a significant amount of ore they were an obvious development put in by a shrewd management during the boom period.

A large dressing floor was built at the portal of Bottle Level and equipped with waterwheel-powered Roller Crushers.

Water supply for the mine came from two major dams; Mossy [30] Moor Dam and New Dam, the latter across the head of Bolton Gill. A leat from Bolton Gill, near Engine shaft fed water round the hillside to Mossy Moor Dam, from which a leat ran back to the Bolton Gill Engine shaft wheel (a diversion also ran from the first leat direct to the wheel to enable direct use of the becks flow). The tail water from this wheel ran into Bolton Gill and fed another dam above the portal of Bottle Level. This was also fed by water taken from further up Hebden Beck and a leat from Eller Beck carried across the main beck on stone piers and was the major feed for the dressing floor.

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It is of note that the Bolton Gill wheel is not in line with the pumping shaft but is in fact at right angles to it. The power cable to the shaft from the wheel passed through a turn gear (of which no detail survives) on the hill shoulder and thus by a precipitous route to the shaft. It is possible that this arrangement, including cable, was adopted to lessen the weight on the stone stanchions which are set on steep ground liable to slumping. The wheel also drove a power cable down Hebden Gill to the Head of an Aerial Ropeway, thought to have been built circa 1860.

On the 26th November 1863, John Hawley and John Herd Barmasters, called a meeting of the Hebden Trust Lords at the Devonshire Arms, Grassington, to distribute a dividend of £500 out of the Royalty money on lead.

From near the portal of Longshaw level, a line of 19311 diameter glazed pipes can be traced, running along the Gill side, with a very shallow fall to a point above the smelt mill. The pipes then turn and run down the hillside with a fall of about 75 feet into the mill. Such a high fall onto a waterwheel is unlikely and it is possible that a Pelton wheel was thus employed.

The smelt mill was built during the 1858-64 period at Hole Bottom, NGR SE 02456414. The mill, of which there are no visible remains was 70 feet x 30 feet with a yard at the East side. The single ore hearth was provided with a very short flue, running up the hillside to a chimney. The life of the mill was short, as the production figures fall rapidly in 1865 and continue at about 65 tons per annum until 1872 when they cease.

In 1877, the lease was renewed for a further 21 years with the addition of free coal for use in furnaces. It would seem too late in view of production figures.

The only other work of major importance by the company was the driving of the Hebden Trial Level, which started from a point in [31] in the village of Hebden, NGR SE 02856296 at an altitude of 600 feet AOD.

Commenced in the 18701s, this level was intended to prove and work the Beevor and Cockbur veins at depth, then to drive on to the Bycliffe vein. This, if completed, would have crosscut the whole of the company's lease.

It is of interest that the level was equipped with compressed air drills and the waterwheel pit is still evident near the portal. It is said that the wheel and compressor were moved into the mine, to a point just inbye of Copper Gill Air Shaft, when it was found that the equipment was unable to deliver a working pressure at the distant forehead.

When the crosscut intersected both Beevor and Cockbur veins they were disappointingly poor and it was decided to abandon the trial and surrender the lease in 1890.

Thus ended the operations of an ambitious little company, who appear to have been well aware of the technological improvements becoming available in their era.

Hebden Moor Lead Returns

Date	1856	1857	1858	1859	1860	1861	1862	1863	1864
Ore	201.8	275.2	222.8	242.4	260.0	152.6	425.6	352.2	186.5
Lead	139.6	182.1	101.5	164.5	165.0	99.2	298.8	229.7	122.9

Date	1865	1866	1867	1868	1869	1870	1871	1872
Ore	57.6	115.8	73.7	88.6	84.3	46.8	31.2	32.4
Lead	35.6	75.3	47.6	57.6	54.8	31.6	23.4	21.1

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M.C. Gill,
38 Main Street,
Sutton in Craven,
KEIGHLEY
BD20 7HD

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