

# MEMOIRS

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## BUCKDEN GAVEL LEAD MINE

M.C. Gill

Buckden Gavel mine is situated at the head of Buckden Gill, to the east of Buckden, in Wharfedale, Yorkshire. It lies close to the mines of Bishopdale Head, situated on the high ground towards Wensleydale.

The deposits at Bishopdale Head were well developed by the late eighteenth century and suffered from poor communications with the Birks smelt mill, on the west side of the River Wharfe. To alleviate this, and to work the southern extension of the veins, a level was driven from the head of Buckden Gill in 1803 by Robert Higgs.<sup>1</sup>

Ore from the new mine was taken via a track over Cow Close to Birks Mill; however when production increased, ore was taken to a new mill in Cam Gill at Starbotton, built in 1815. This ore went via the track over East Side Pasture.

The cross-cut level was driven from the head of the Gill, at NGR SD95547814 at an altitude of 1700 feet, in a north-easterly direction. At 30 feet from the portal is a Venturi shaft to surface, which seems to have been the only form of ventilation. The cross-cut is stone arched for the first 160 feet as it passes through slump materials into a bed of shaley flagstones. Due to the shallow easterly dip of the beds and a number of small faults, the level passes into flagstones and the top limestones at 720 feet from the portal.

The mine was developed on three horizons of flatting beds; the Low Flat, 6 Fathom Flat and 9 Fathom Flat, by a series of near north and south drifts and haulage routes, at adit level. The Low Flat is the thickest and most regular, covering all the mine's area and is found at Adit level, extending a short distance above and below it. It has been tried at many points, Sunters North Level and the East Drift being the most extensively worked. Wisemans Sun Level appears to be the only place where ore has been worked below the adit. It was also worked at adit level here and consists mainly of compacted sand. Wisemans West Level follows the 'Dun Course' of the Low Flat and numerous small trials have been made into it with little success. The matrix of the Low Flat is mainly dolomitised limestone, limonite, clay, sand and earthy material. Vein minerals present include barytes, calcite, cerusite, anglesite and smithsonite among which the galena occurred as disseminated patches or as lenses on the floor of the flat.

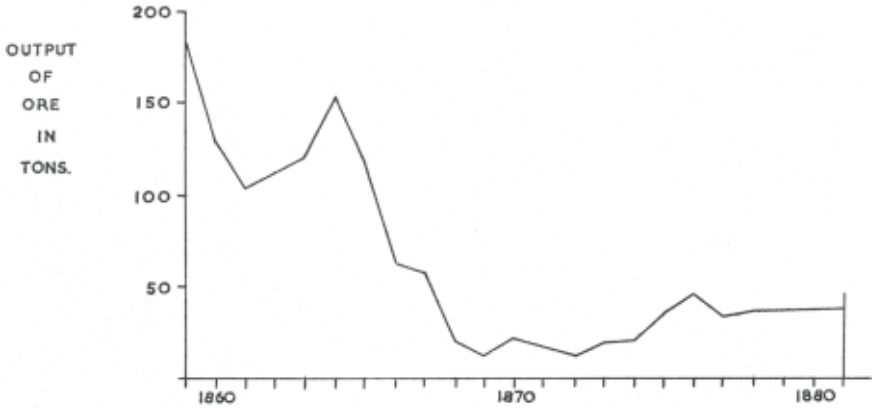
## BUCKDEN GAVEL LEAD MINE

From a series of rises in the Number 1 North and South drift area, the 6 Fathoms Flat is entered. It is on average about 3 feet thick and is found and tried in all parts of the mine. It was in this flat that the remains of a man were found in 1964;<sup>2</sup> he was never identified but was said to have lain there for 80-100 years. The 9 Fathoms Flat was developed on the north-south system of drifts from the rise on Number 1 North Drift. It was followed west to Number 1 South Drift, to the south for a short distance and to the north for a considerable distance through poor ground. A haulage drift from the workings was railed and meets the top of an ore-pass down to Number 1 North drift. The remains of a metal body end-tipping wagon were found here; being 20 inches wide and deep by 42 inches long, set on a chassis of 4 inch square timber. The wheels were missing but were probably about 8 inches in diameter set on 18 inch gauge track of chaired iron strip rails. The 9 Fathoms Flat is entered by rises at many points but seems to have been barren over much of its area, any rises passing above it meet with a bed of shale which cuts off further mineralisation. From one of these rises on Rennels level, the remains of a hand windlass were removed for preservation.

Sunters North level and Wisemans West Level North were interconnected by Baudens Crosscuts Nos. 1 and 2. Through these haulage routes from the furthest northern workings and the East Drift area, ore was trammed to the surface. The ore was loaded from hoppers and presumably trammed by hand, no traces of ponies having been found. The use of wooden rails on the surface dressing floors contrasts with metal strip rails in the mine.

The mine is in the manor of the Duke of Devonshire and was leased to C. Lodge & Co. in 1862, with Charles Lodge as agent. In 1872 the Gavel Mining Co were working the mine together with the Starbotton Cam mines; Bernard Lodge was the manager. Little or nothing is known of the mine lessees' prior to 1860. A few inscriptions have been found in the mine with dates: 'IA 1808' in the main crosscut, 'John Simpson 1844' and '? Wiseman 1844' in Wisemans Sun Level and 'IA 1822' in Wisemans West Level North.

Production figures for the mine's early life are scarce. In 1815, 95 tons of ore were smelted at Starbotton and in 1818 the production was 234 tons of smelted lead. The accompanying graph, shows production from 1859 until the closure in 1881/2.



Output of  
Buckden Gavel Mine  
1859-1881

**Sources**

1. Raistrick, A. 1973. Lead Mining in the Mid-Pennines.
2. Nichols, A.R. 1964. The discovery of a human skeleton in Buckden Gavel lead mine. NCMRS Memoirs 1964 pt.2.

The records of the NCMRS together with field reports have also been used in the compilation of this article.

M.C. Gill  
1 Valley View  
Cross Hills  
Keighley  
Yorkshire  
BD20 8SA

MSS dated January 1974

# BUCKDEN GAVEL LEAD MINE



**GAVEL LEAD MINE.**

NEAR  
**BUCKDEN.**

SCALE 1/2500.  
N.C.M.S. SHEET (N72)  
BASED ON  
MAGNETIC OBSERVATIONS.



INTERNAL DECLINATION  
MAGNETIC (1971)

FLANK LEVEL POINTS:  
BGR. OF LEVEL  
TOP POSITION  
LUNDA HORIZON

80 9550/PM42  
104 9550/PM42  
124 9550/PM42  
144 9550/PM42  
164 9550/PM42

REFERENCES:  
ADMT. LEVELS.  
ADMT. LEVELS IN INACCESSIBLE  
RECORDS OF THE MINE.  
HIGH LEVELS.  
PUMP.

N.C.M.S. Memoirs 1974

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