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EAGLE LEVEL

by

J.M. Dickinson.

The Eagle adit Level near Eagle Hall, Pateley Bridge, in Yorkshire was driven early in the 19th century by the Eagle Mining Co. The level N.G.R. SE 144652 at an altitude of 620 O.D. ft. was driven in a South Westerly direction towards the Lead mines at Greenhow. It was hoped to cut the 'Black Vein' which is the master Vein of the district. The Level was driven past the strike of the latter but no sign of a vein was seen. The Company then decided to drive on towards Waterhole and Sun Veins in the Cockhill sett on Greenhow Hill. The Company eventually gave up the trial in 1844 after driving approx. 1,800 yards. Reports by a Michael Collings to the Royalty Owners give a clear account of the works between 1837 to 1844:-

23rd Dec. 1837.

Eagle Level now going at a good rate, about 100 fathoms per [4] annum. Have stratum of Limestone in roof which improves the Level. Considered not far from Waterhole Vein but as course of this uncertain - at a loss to know how far.

Eagle Mining Co. would like to have arrangements made with you respecting working Bewerley Common. It has been a long and expensive trial, more than 12 years have been spent in it. Object at first was to cut Prosperous Vein (Black Vein) but that not being found, it has been continued towards the common and will probably, at no distant period, be an important mine, forming a general drain for all the Coldstones and Greenhow Hill Veins. Up to Nov. 1837 Eagle Level was driven 765 fathoms.

21st June 1838.

Eagle Level not yet cut any vein of importance. Some ore seen in string or backing a few fathoms back from forehead. Thought forehead at no great distance from Waterhole Vein. Eagle Co. thinking about an agreement to work the common.

23rd Dec. 1838

Eagle Level driving forward at about 25 fathom per quarter. Up to Nov. 3rd total length 874 fathoms, no vein of importance yet cut. Waterhole Vein expected first of Gillfield sett. water in quantity lately cut from a joint in Limestone, very muddy.

Level now in plate with Limestone in roof and sole. Strata dip at 45° to S.E. Foul air prevented working for some days lately. Water blast forces plenty of air to forehead, but in some states of weather it is bad, at others quite fresh.

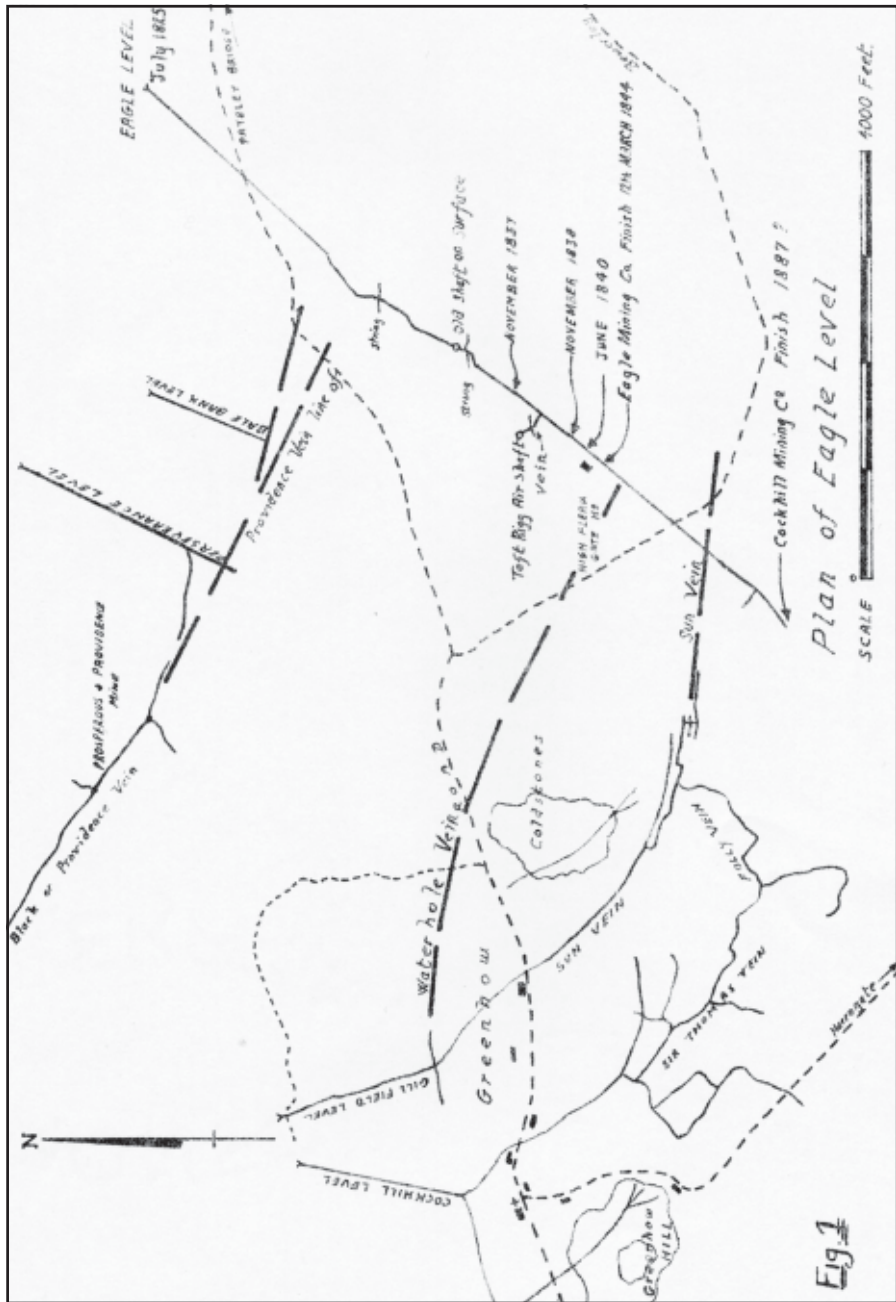


Fig 1

EAGLE LEVEL

Not so many of these interruptions since borehole made. There are at Toft Gate some weak veins which have been at some time been wrought and appear to have produced ore, but only near the surface nipping out downwards, according to the accounts of some who have seen them.

Thin strings mentioned in last report, as cut in Eagle Level probably belong to these veins.

21st Dec. 1839

Little change in Eagle Mine, except some confusion and irregularity in strata. A little mineral among confused ground but no ore or any indication of a vein. During quarter ending May. Trial of Toft Riggs Veins did not succeed. Level comes near the moor and Company anxious about agreement respecting working of it. Lately great hindrance from bad air, forehead now 7 fms from High Fleakgate House.

In early part of half year, air in level so bad, made it impossible to get to forehead, made it necessary to sink shaft over borehole instead of near forehead as was intended. After sinking shaft 17 fathoms air in Level found to be quite good. It is [5] thought foul air comes out of a stratus of grit just cut through by shaft. This grit also supplies a large proportion of the water. Before shaft was sunk, foul air, coming out of joints of grit along with the water was forced down borehole. But since sinking of shaft, air seems separate from water and pure air goes down instead.

Company have got zinc air pipes to reach from Borehole to forehead. Level undergoing a thorough repair, so it will be some time before forehead can be recommenced.

21st June 1840

Repairs to Level now complete and forehead recommenced. But some trial is to be made in a vein or two, and also hoping to prove whether Level is in Upper or Lower limestone. Point is important as in Cockhill Mine the upper beds of the Lower lime have produced most ore. In Cockhill and Gill Field Levels there is little if any Upper Lime. Seems to be the Upper lime at Toft Gate, likely that Lime of Level is Upper rather than Lower.

Upon making trial, however, the Eagle Limes are different in stratification from either, the Upper or Lower Limes as observed in other places. Several different strata of Limestone have been cut through, with intervening shales, which have not been seen elsewhere. Question probably of little consequence for if Waterhole Vein continues to have same throw as it has on the North side of the 'Hill' in Gill Field Mine, it will, when cut, bring up the beds on the South side and thus the Lower Limes may be found on the opposite side of the vein.

21st June 1840

This morning good ore found in vein of weak appearance about 125 fm from forehead. A little ore had been seen in it when cut by Level and some trial made in roof. Lately it was tried to the North-Westward or to the right. Up to last night it appeared very poor with little but common spar in it, with no symptom of a vein. Then some water burst out overnight and some fine and large pieces of ore were discovered among the great quantity of sludge.

21st Dec. 1840

Nothing done at forefield during past half year. Company have been working in Veins and making trials. Vein found on 13.6.1840 was at first good, but later became poor. Ore continued longest in a slant rise along the upper stratum of the Lime, in which the ore was found. A Horizontal drift has been continued westward in the Vein to the present time, and on 4th Dec. fine samples were but in it, and vein looked good, but it is again poor and will not pay for working.

Probably about 7 fm. of firm Limestone over the forehead.

[6]

Greatest quantity of water springs out of the sole where ore first come at. Of the other veins trying, one is near the shaft and borehole. Somewhat similar in appearance to that which yielded ore.

Other vein or string is near forehead. A considerable quantity of water issues from it.

Lead smelted from ore got at Eagle Mine 94 pieces 8 stone
Duty received 13 pieces.

21 June 1841

Nothing done at forehead in last half year. Vein, or rather string, in which fine samples found 12 months ago, is at present abandoned. Only trial now is in a vein near the borehole, more like a vein than the other, though till lately no ore had been seen in it. A few days since, large samples of mineral sprinkled with ore, were found, and though the fore field of this drift is again dead, vein is worth some further trial.

21st Dec 1841

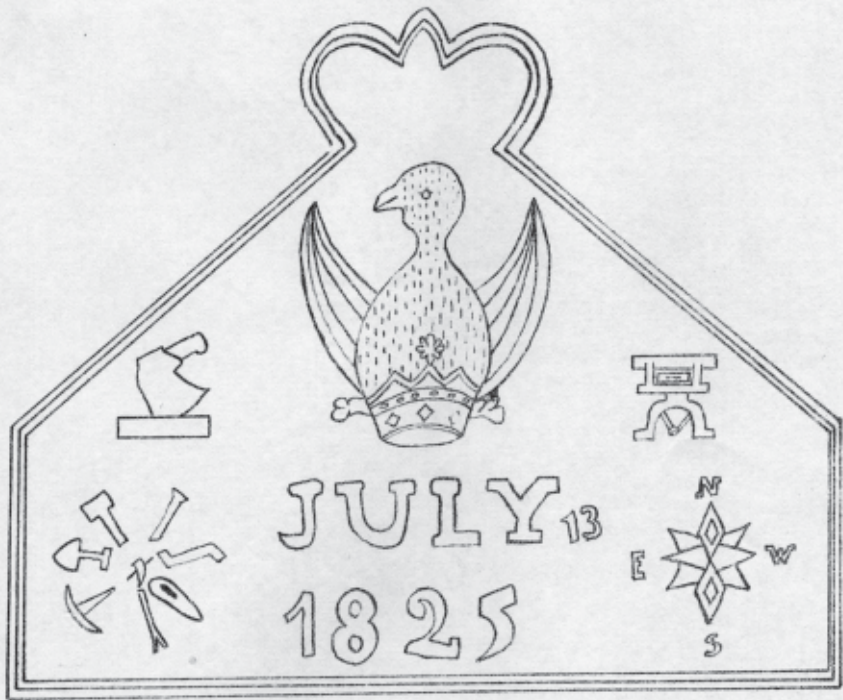
Nothing done at forehead in past half year, Level somewhat out of repair and bad air.

A Shaft is sinking about 100 fms. from forehead, over the vein that produced the ore.

Shaft is sunk about 28 fm. and a slant rise is making in the vein to communicate with this shaft. Some small samples of ore lately seen in the rise.

EAGLE LEVEL

HEADSTONE EAGLE HALL LEVEL



Scale approx 1/2

Fig. 2

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Trial mentioned last half year as making in a vein near the Borehole, in which vein samples of ore had been found is abandoned as vein did not improve in its Westerly direction.

21st June 1842

Now two years since forehead stopped, and air in Level is consequently much worse, probably owing to diminution in supply of water down the Borehole and forehead will not move on until shaft now sinking be communicated with the slant rise.

Some time since a large quantity of water was cut in the shaft and they had to commence boring, which they are doing now. But the holing of this Borehole will probably be difficult as men can seldom work in the slant rise making to meet, owing to bad air. And for the finding of the rods it will be necessary to work this rise some fathoms upwards.

21st Dec.1842

Nearly in same state as last half year except that Level gone more out of repair.

Some time since Borehole thought to be near deep enough for top of rise, search made for it, but now believed to want depth, [7] and boring resumed accordingly. Air in Level so bad, candle will not burn, workmen obliged to go through in dark, and strike a light near end of air pipes. Breaks are frequent and cannot be repaired till air is better. The rubbish falling from the roof has to be filled into the waggon and removed in the dark.

21st June 1843

Early this year Borehole was communicated with slant rise, and since then men have been sinking shaft, and have done as much, considering depth and hardness of the rock, as could be expected. They have a considerable thickness of rough porous grit, which cannot be blasted, except by the powder being enclosed in tin cartridges. Probably complete shaft to top of rise within next three months.

21st Dec. 1843

Shaft now completed and there is plenty of good air but Level in deplorably bad repair, so some time before they can set forehead going, which has been standing 3 years and more.

Repairing Level with wood. Shaft will make a good climbing waygate. 8 men employed.

If Level were driven on to Sun and Folly Veins I think it could not fail to discover some ore.

Folly Vein looks pretty well at the deepest workings, there are some veins that appear like to meet it downwards, in which case, as often happens, they may be very productive.

EAGLE LEVEL

21st June 1844

Level has drained water from the soles of the different Sun-Side Levels to a depth of 20 fathoms, perhaps more in some places in dry weather. Eagle Mining Company had completed sinking of shaft, and had repaired the Level, so that driving could be recommenced, after it had been allowed to stand nearly 4 years. When suddenly, after a meeting held on 12th March 1844, they dismissed their workmen and gave up working the mine and have done nothing since.

It has since been explained, that the respectable part of the Company did not want to give up the Trial, they have, at so much expense, carried on this far, but that their object is, by this manoeuvre, to get rid of some of the Company who have given up the expense of paying their shares.

The level was continued at a later date by either the Cockhill MINING Co. or the Sunside MINING Co. Backhouse suggests that the Cockhill Co. completed the level to Sun Vein in 1887. The level is now sealed at the entrance, its waters supplying the taps of Pateley Bridge.

*called Providence Vein at South East End by some of mines.