

The recovery of a mine wagon from the Wham Engine Shaft

Introduction.

During routine investigations of mineshafts on Castleton Moor a climbing shaft situated at grid reference SK 1342 8111, at a height of 1365 feet above O.D. was descended. In the working was found a mine wagon in an excellent state of preservation, which was removed from the mine. The wagon and its recovery, are described in detail below, and for the present it is intended to summarise some of the problems about the working, and particularly the naming of this mine. For the purposes of this article the shaft will be referred to as the Wham Engine Shaft, this being the name by which it is generally described by speleologists, although it is certainly not an engine shaft.

A plan of the area around the Hazard Mine, scale 1 inch to 1 mile, produced by Thomas Hall, agent to the Hazard partnership, and dated 17th. July 1837 (1), shows a shaft labelled the "Wham Engin" as being 900 feet westwardly along the vein from the Hazard Engine, and between the two veins in the Wham. The importance of this shaft can be gauged from the fact that although the positions of the better known Hazard, Old Moor, and Fackthread Mines are shown on the plan the only individual shaft shown and named is the "Wham Engin". The shaft with which this article is concerned is 900 feet (from O.S. 6" to 1 mile map) from the Hazard Engine, but is on the southerly of the two veins. There is however a suspicious hollow a few yards North-west of this shaft which may repay investigation.

A section of the Hazard Mine (1), dated 17th. June 1837 shows a shaft 583 feet west of the Hazard Engine, which descends 300 feet to

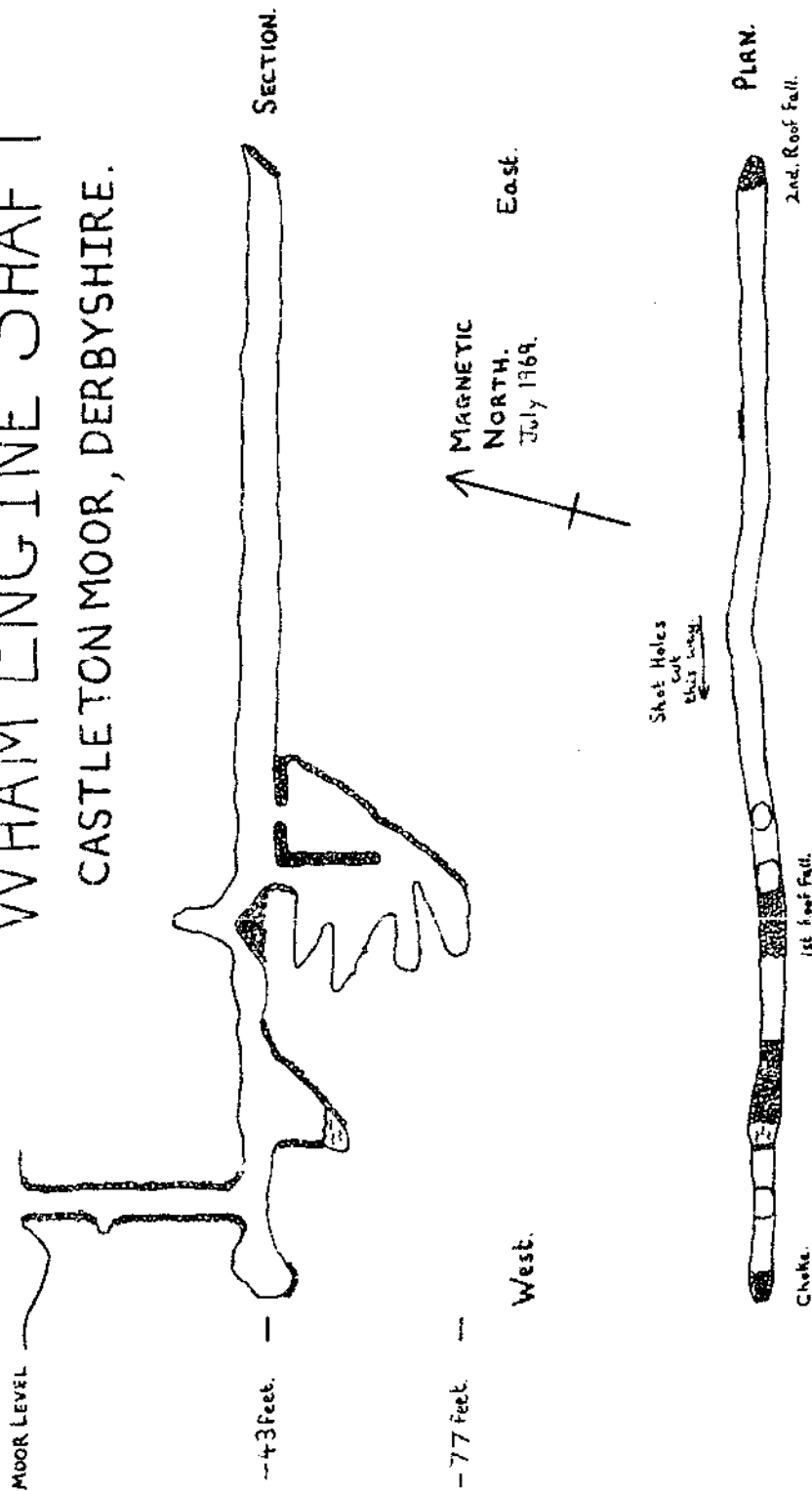
the 48 fathom Middle Cartgate of the Hazard Mine, and also a series of climbing shafts which "come to day" 445 feet west of the Hazard Engine and enter the former shaft 144 feet below the surface, some 45 feet above the 32 fathom cartgate. This plan also shows the 32 fathom cartgate, the "Cartgate into the Wham", extending 1,005 feet west of the Hazard Engine, some 105 feet beyond the shaft under consideration, although it will pass approximately 74 feet below the deepest point accessible from this shaft. Although no scale is quoted on this plan it can be determined that the scale is 1" to 20 fathoms by comparison of known distances, both on the surface and in the Hazard Engine Shaft, with the plan, and the distances quoted above are calculated using this scale.

The Description of the Mine and the Recovery of the Wagon.

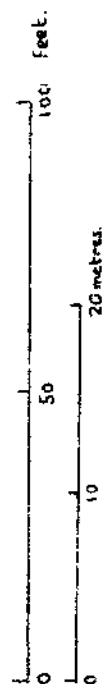
The shaft by which the mine is entered is 43 feet in depth, and is cut in the vein for its whole depth. Some 12 feet down the shaft a bed of toadstone 2 feet thick can be seen, and this may be the bed observed 84 feet down the Hazard Engine Shaft and 65 ft. down a shaft on Daisey Rake, due south of the Hazard Mine. The level from the foot of the shaft can be followed for 17ft west along the vein, descending at the end where it is blocked by a collapse from above. This collapse is directly above a large shakehole on the surface. Eastwards from the shaft foot the level can be followed along the vein for 10 feet to where a hole descends 8 feet to a pool of water. This pool was at first thought to mark the site of a collapsed sump shaft, but as accessible workings in the mine go below this level it is likely that the floor of the hole is solid. The hole can be crossed to gain the continuation of the level by a traverse of some 12-15 feet. The level now has iron rails on the floor, and many rails are stacked in the side of the level, as though removed only a short time before the closure of the mine. On the first exploration of the mine the level was found to be blocked by a roof fall 49ft. from the shaft foot. The wagon was found half buried by this fall and the rails continued below it. Examination

WHAM ENGINE SHAFT

CASTLETON MOOR, DERBYSHIRE.



SURVEYED BY:
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DRAWN BY:
S. J. THOMPSON.
JULY 1969.



SCALE 1:400. C.R.G. GRADE 3b.

of the walls of the level indicated that it had been cut westwardly, towards the shaft. Some ten minutes digging at the top cleared a way on, and on the far side of the fall a sump was found, and crossed to gain access to 138 feet of level leading to the terminal choke, this roof fall being considered too dangerous for digging. This section of the level also has iron rails on the floor, and these continue under the final roof fall. The survey shows a second hole in the floor 10½ ft from the first sump. This hole was formed on the first exploration when a member of the party put his foot through the floor! The sump was subsequently descended, to a depth of 77 feet below the surface and this showed the floor of much of the upper level to be about 2ft thick, of deads supported on very rotten stemples. The whole of the mine is in a worked out stope 2'6" to 4' wide, the main level having both floor and ceiling of deads, and is therefore rather dangerous in parts.

The operation of recovering the wagon began by digging it out of the roof fall, this operation taking about 20 minutes. The transport of the wagon to the shaft foot, a distance of 50 feet, took 40-45 minutes, the greatest difficulty being the crossing of the traverse. An attempt was then made to lift the wagon up the shaft, three people hauling on a rope succeeding in raising it 4 inches from the bottom! A second attempt with a party of seven hauling raised the wagon about 15 feet, to where it became jammed, and after lowering it back to the bottom the attempt was abandoned. One week later three people returned bringing 80 feet of steel cable and a LandRover. The wagon was easily pulled up 15 feet to where it had previously jammed and then three of its wheels were removed. It was then possible to ease the wagon gradually to the top of the shaft without causing more than a little damage to the ginging. The operation of hauling the wagon just 43ft took a little over four hours, an average speed of ten feet per hour! The final descent of the mine was made to carry out the survey, and to recover two seven foot lengths of rail.

The wagon is 4ft 7 $\frac{1}{2}$ " in length, overall, 1ft 6" wide and stands 1ft 9" high, and is constructed of wood, well bound with iron strips, the ends being 1 $\frac{3}{4}$ " thick, the sides and bottom 1" thick. The wheels are iron, 5 $\frac{1}{2}$ " in diameter and 3" thick, with a flange 6 $\frac{3}{4}$ " in diameter on the inside edge. A detailed drawing of the wagon is included with this article.

The rails are $\frac{3}{4}$ in. square iron bars in lengths of 6 to 9 feet, pierced at irregular intervals by $\frac{1}{4}$ " holes by which they are attached to the sleepers, there being generally four holes per length of rail. The sleepers used are timbers of approximately two feet length, and 2 and a half inches broad, by one and a half inches deep, the gauge of the track being 14 $\frac{1}{2}$ inches.

The Date of the Workings.

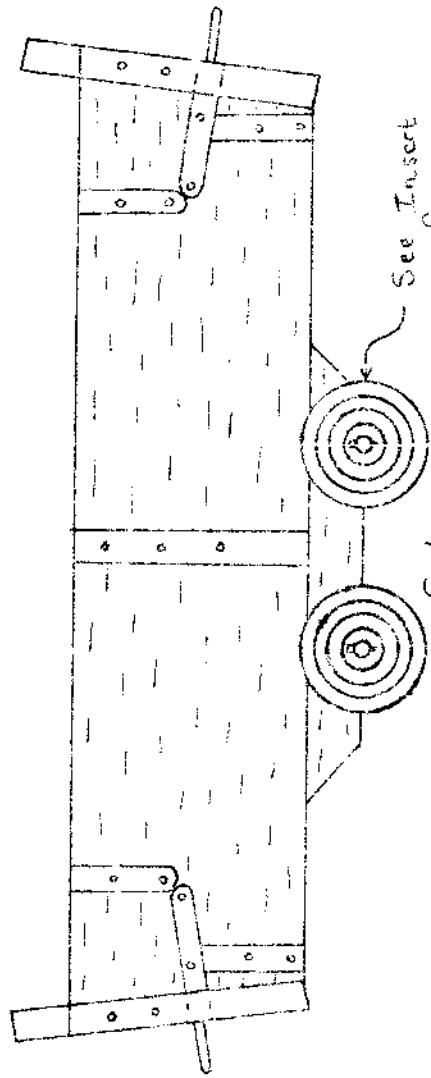
The veins in the region known as the Wham have been worked for a long time, although there is little documentary evidence, and certainly mining must have been well developed in the area by the 1750's. A mine known as Wham Head Grove is on record as producing ore in 1735, 1750, '53, and '54 (2,3), and even earlier a mine by the name of Wham Grove is recorded as having made a loss in the years 1709, '13 and '15 although a profit is recorded in 1711 (4,5). The following entry occurs in the Castleton Barmasters' Book (6,7) for 1752:-

July 27th. Drawn Dr. Jno. Hall and Partners over a meer of ground which was freed Sept. 23rd. 1749 for a second taker meer west from Dortlo Head Old Founder, which said meer of ground was staked on the range of the 24, on the 22nd. day of June, unto the range of the Old Wham Vein.

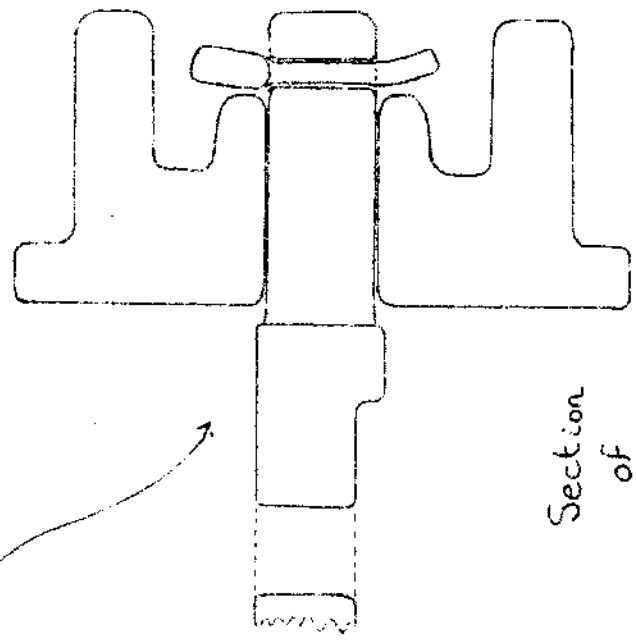
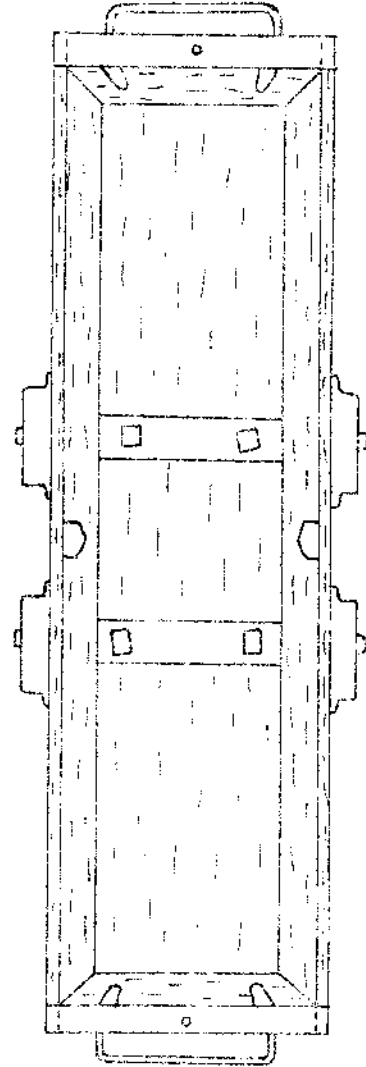
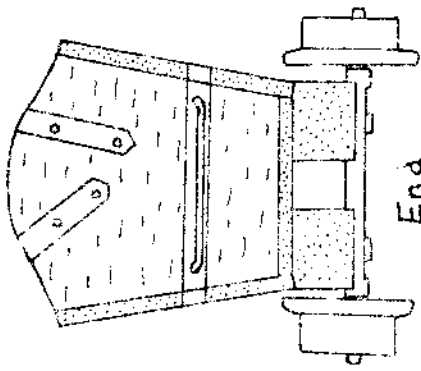
Another mine in the Wham active at this period was the Chance or Penny Mine, and this appears to have been associated with the Hazard Mine, viz. the Barmasters' entry of 1770 (6,7) :-

Nov. 15th. Given Edward Clayton possession of Mary Hall widow and heirs of the late James Hall parts and shares of Penny Mine Engine otherwise Chance, their parts and shares of H-

MINE WAGON Recovered from the WHAM ENGINE SHAFT.



See Insert for Section of Wheel & Axle



Scale 1:10.



Wheel & Axle Scale 1:2

Hazard Mine, their parts and shares of Horsepit Mine by virtue of a stewards' warrant. Matthew Hall & Thos Frost two of the 24 men.

Mining has continued since then until the period around 1830-40 when the decline in the lead market closed many small mines. In Castleton Liberty only the Hazard and Odin Mines were being worked and both had closed by 1846. Even the very rich Ashton's Mine, one of a very few mines in the area to have a steam engine, had closed by c.1890. Hence the wagon recovered from these workings is provisionally dated to the period 1800-1830, though with very little positive evidence.

Conclusions.

Two results of importance have emerged from this work; firstly a mine wagon in excellent condition has been recovered for preservation, and secondly the number of problems in the area still requiring solution has been increased somewhat! The existence of the shaft shown on the plan of the Hazard Mine has probably been confirmed, as the level encountered in the mine has been cut from some unknown working to the east, and in view of the great difficulties encountered in removing the wagon from the shaft it could not have entered the mine by this shaft. Further work is needed to attempt to trace the shaft mentioned above.

Finally, the author considers it prudent to stress the dangerous condition of these workings. The false floor in much of the level has been mentioned above, and much of the roof of the level is no longer supported by the stemples, the section of the ceiling above the first fall being highly dangerous. Furthermore, a ten foot section of the deads in the entrance shaft fell away when struck rather hard with a swinging wagon.

Acknowledgements.

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shaft;

Mr. W. Fletcher, of Knowlegates Farm, who contributed additional
muscles to the successful hauling operation.

References.

- 1/ Bagshaw Collection, Sheffield City Library, Document 667.
- 2/ J.Lawson (1968), Bull.P.D.M.H.S. Vol.3. pt. 5.pp. 305-310.
- 3/ Bagshaw Collection, John Rylands Library, Manchester,
Documents 8/3/4,6,7,13-17 and 18-22.
- 4/ J.Lawson (1968), Bull.P.D.M.H.S. Vol.3. pt.6.pp. 353-356.
- 5/ Bagshaw Collection, John Rylands Library, Manchester,
Document 12/1/60 page 17.
- 6/ Extracts from the Castleton Barmaster's Book 1752-1778,
P.D.M.H.S. Library, Document D.8 .
- 7/ Castleton Mining Records, B.S.A. Records, Settle, Yorks.

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