DISCUSSION

Dear Sir,

A chance remark of mine in the last Bulletin (Vol.1, No.7, p.3 and plate 1) in my article on Long Cliff Mine, Castleton was made without really thinking about the subject and has provoked discussion with Nellie Kirkham and Frank Nixon and others. It refers to the "deep scoring by the kibble rope or chain". The question arises - was the scoring by a chain or by some other means? My opinion is that the scoring was done by ROPE with grit particles embedded between the fibres. My arguments for this conclusion are:-

1) scoring can be seen in many small diameter climbing shafts and winzes where any haulage must have been by hand or by stowes. The sheer weight of chain would have made hand haulage very difficult if not impossible.

2) The only records of chain in use refer to the large mines with steam engines - particularly those of the coalfield.

3) The results of a simple experiment which members may like to try. Take a short length of coarse string, wet it thoroughly, and form it into a bow-string on a suitable frame. Drag it at intervals through wet fine debris from a mine working (or crushed calcite, etc.,) and saw across a block of limestone. It doesn't take very long to produce a groove.

4) The width of many such scored climbing shafts is less than the length of the drum of the stowes so that when the rope was wound in and coiled on the drum towards the ends it would naturally tend to pull against the sides of the shaft towards the top, where scoring is most frequently seen.

5) Many climbing shafts are far from being dead vertical so that winding would inevitably pull against the sides.

6) Anyone who has worked a life-line on a ladder pitch in caving will know that however carefully managed the line always seems to bind in the same places as each person climbs.

Thus I argue that "grit-armoured rope" could and did produce the scoring and probably after relatively little haulage, say a few dozen kibble-fulls, plus the free fall as the kibble is returned to the bottom.

Miss Nellie Kirkham has argued against this conclusion but has failed to convince me. She suggested that the ends of the kibble handle (the loops on the ends of the semi-circle) being iron would produce the scoring, but I must point out that kibbles invariably rotate on being raised or lowered and the chances of binding repeatedly in the same places are almost nil. She has also argued that the friction of the rope would greatly increase the miners labour. I agree but the miner may have taken the view that a little extra effort during production was better than work without production improving the shaft so that binding and scoring did not occur. She also argued that the rope would give before scoring, but the grit-armoured bow-string will saw a very deep groove before it shows any sign of weakness. Some primitive peoples used armoured string to saw building stone.

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