

Causes of accidents in the Mines

Source A:

Extract from a tract (short piece of writing) on mining by Joshua Richardson, 1848

The accidents which occur in mines may be classes under five different heads, viz:-

FIRST.

From explosions of "fire-damp" or carburetted hydrogen gas, and the prevalence of "choke damp" of or carbonic acid gas.

SECOND.

From coal or stones falling from the roof

THIRD

From men falling down, and coal or stones falling on them, whilst descending or ascending the shafts

FOURTH

From inundations [flooding] from old works or other adjacent waters

FIFTH

From miscellaneous causes

Source from: On the Prevention of Accidents in mines by Joshua Richardson, 1848 p.25 in Tracts on Mining 19th Century Collection 622.09428 TRA5, Newcastle University Special Collections, GB 186.

Source B:

An artist's representation of an explosion in a mine



Source from: Pitman's Papers Vol. II, Rare Books, RB622.08 WILL, Newcastle University Special Collections, GB 186

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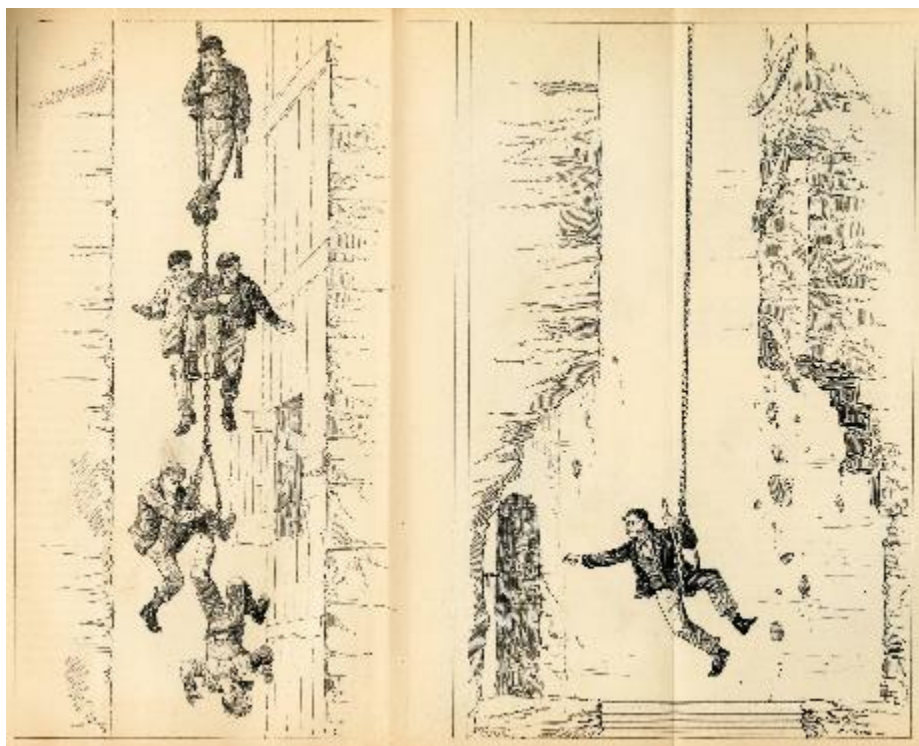
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Source C:
Extract from An essay on Fire and Choke Damps
in Coal and Other Mines by Daniel Nield, 1810

These men [coal miners] are at all times more exposed to danger than to most other classes of society, in consequence of their descending and ascending the shafts of the pit and from the roofs sometimes falling suddenly upon them. Human precaution is not at all times sufficient to guard against these accidents. The deaths which results fom these accidents are however excedingly few, when compared with those which are caused by what is generally called the fire and choke damp more especially the former, which has frequently seen the cause of the deaths of thirty or forty miners at one single explosion, to say nothing of those who have been burned in the most dreadfulmanner.

Source from: Extract from An Essay on Fire and Choke Damps in Coal and Other Mines by Daniel Nield, 1810, p.10 in Mining and Coal Trade Papers, RB 622.08 MIN, Newcastle University Special Collections, GB 186.

Source D:
An illustration of miners being lowered down
or raised up a mineshaft, 1868



Source from: A Treatise on the ventilation of coal mines RB 942 8 TYN, Newcastle University Special Collections, GB 186.

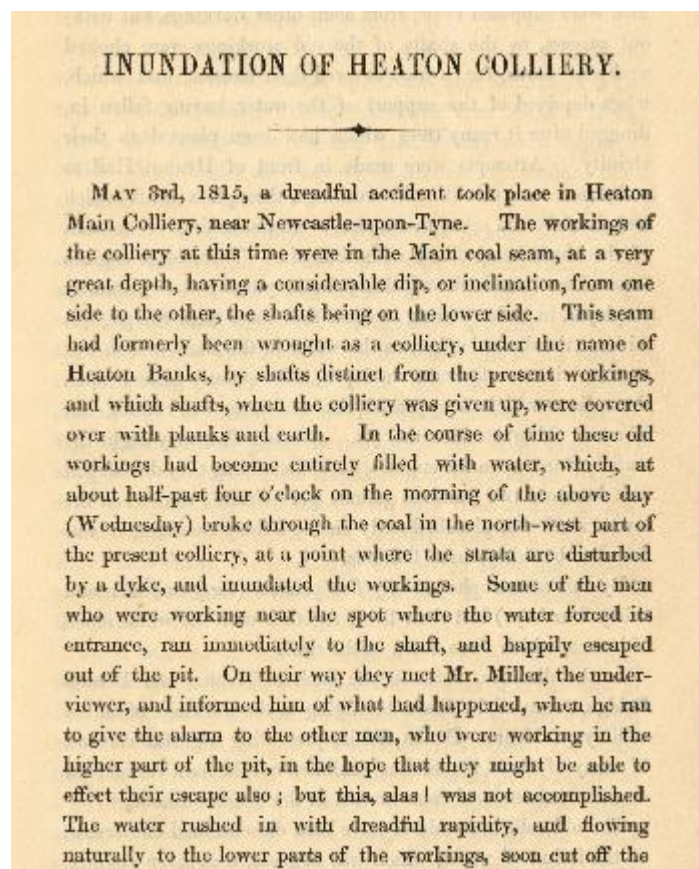
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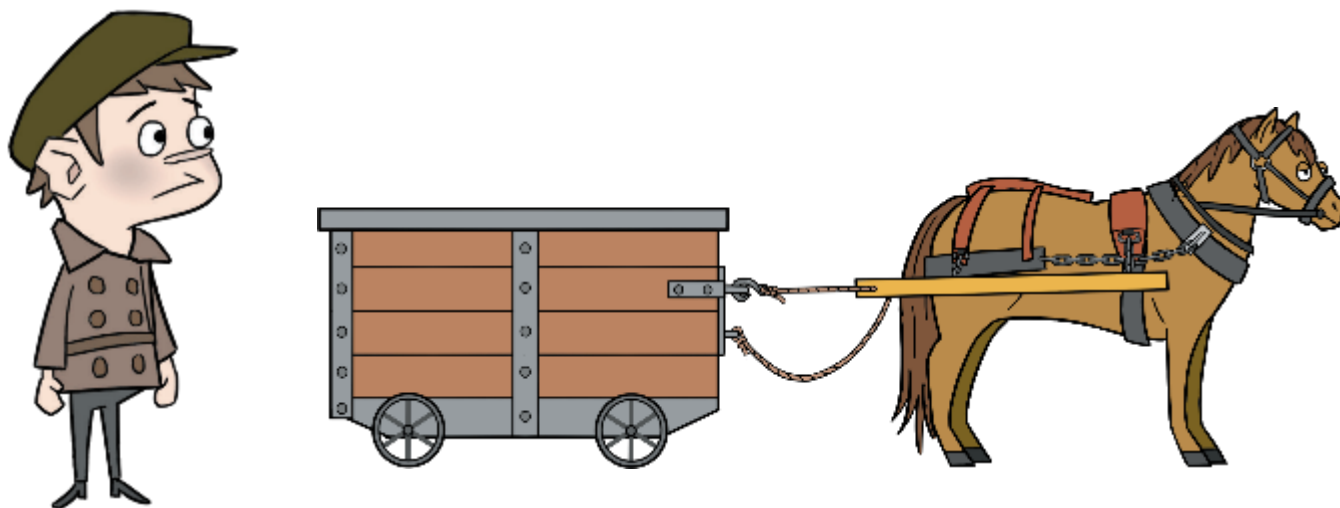
Source E:

An extract from an account of a mining disaster which took place at Heaton Main Colliery, Newcastle Upon Tyne, in 1815



May 3rd 1815, a dreadful accident took place in Heaton Main Colliery, near Newcastle-upon-Tyne...In the course of time these old workings had become entirely filled with water, which, at about half-past four o'clock on the morning of the above day (Wednesday) broke through the coal in the north-west part of the present colliery,...and inundated the workings.

Source from: A Letter from the dead to the living, or, The collier boy and his mother: being an account of the dreadful inundation of Heaton Colliery, on May 3rd, 1815, by which forty-one men and thirty-four boys lost their lives, Clarke 1853, Newcastle University Special Collections, GB 186



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Activities

Study Source A.

1) List four causes of accidents in the coal mines in the nineteenth century.

1. _____
2. _____
3. _____
4. _____

Study Sources A and B.

2) According to Source A, what usually caused explosions in coal mines such as the one pictured in source B?

Study Source C.

3) According to Source C, what were two frequent consequences of fire-damp explosions?

1. _____
2. _____

Study Sources A, C and D.

4) List two types of accidents which sometimes occurred when miners were being lowered down or raised up from the mine shafts?

1. _____
2. _____

Study Sources A and E.

5) What caused the accident that took place at Heaton Main Colliery in 1815?



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