

Mining Jobs

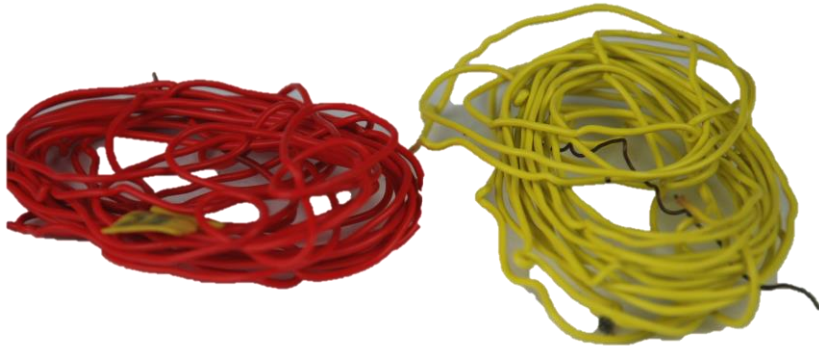
Dummy Explosive

Explosives were used in mines to break up big pieces of coal into smaller pieces to make them easier to get out of the mine. The Shot-firers job was to drill holes in the coal, attach the wire and seal up the explosives with clay to stop them from shooting out of the shot hole like a gun once ignited.



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Detonator Wire



Shot firing was very dangerous work. The Short-firer decided on the quantity of explosives required and would check blasting areas to make sure they had met safety regulations. They then connected the wires, fuses and detonating cords to explosive cartridges and detonators, and gave final warning before detonating the explosives.

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Shot Exploder



The exploder provided the charge that set off the small amount of explosive charge inside the detonator. The detonator was set inside an explosive cartridge with others in a shothole. Holes were drilled into the coal or rock which needed blasting. When the shotholes had been safely set up with explosives, the detonator was wired to the exploder at a safe distance. The shotfirer was responsible for safety and knew how far away was safe for people to stand.

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Flame Safety Lamp



After a particularly bad explosion in 1812, two inventors George Stephenson and Sir Humphrey Davy both worked to produce a lamp safe to use in mines. The Davy lamp had a wire gauze/ mesh surrounding the flame. This let air and some gas in, but it did not let the heat of the flame out. The gas outside the gauze never got hot enough to explode. It gave a safe light and also the small flame gave the miners warning when dangerous gas was around, as the flame would go out and the miners knew to evacuate. It is still used for this purpose today.

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Garforth Bulb

The Garforth bulb was used by the Deputy to test for gas. The bulb was attached to the deputy's stick. They raise the stick up into the area of the roof where gas may be suspected, pulled the string to open the lever inlet and as the bulb inflates any gas would be drawn into the bulb. The bulb was then inserted into the side of the Garforth Lamp, squeezed slowly and any gas would alter the shape and colour of the flame in the lamp. The deputy would take action to ventilate any gaseous areas.



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Horse Shoe



Ponies were used underground to pull coal tubs. They had to work on a hard surface all day doing heavy work; therefore, it was important that they were fitted with metal horseshoes to protect their feet from cracking or splitting. They would be hand-made (usually on-site) by a Blacksmith at his forge. He would create a very hot fire that could heat metal until it softened. This enabled him to bend the metal into the shape he needed, depending on the size of the hoof.

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Horse Bridal



As defined in the Oxford English Dictionary, the "bridle" includes both the headstall that holds a bit that goes in the mouth of a horse, and the reins that are attached to the bit. Headgear without a bit that uses a noseband to control a horse is called a hackamore, or, in some areas, a bitless bridle.

They allow the rider to control the horse's directional and forward movement.

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Horse Brush



Brushing the Pit Pony was an essential task for the Pony Driver to do each day as it helped to rid the horse's hair of coal dust, mites and stopped the horses tackle from rubbing on their skin. Basic grooming involves brushing the whole of the body in the direction of the hair growth to remove mud and dust, picking out the feet and tidying the mane and tail with a brush.

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Knee Pads



Knee pads were essential for miners who worked in mines with low coal face seams where kneeling was the only way to get at the coal. Knee pads were needed not only for working low seams but also in travelling to the coal face as miners often had to crawl to get to their work site. Many miners did develop "miners' knee" due to the prolonged excessive pressure on the knees.

Miners at Work

Cap Lamp and Battery



The Cap Lamp consisted of a battery encased in a self-locking steel case worn on the miner's belt, with a flexible cord attached to a cap lamp. The battery could power a six-candlepower lamp for 12-hours and was recharged at the end of a miner's shift. A metal clip was designed to fix onto the miner's helmet so the lamp could be attached. Miners used to communicate with one another by flashing their cap lamp on and off.

Miners at Work

Plastic Helmet



In 1963 plastic helmets became compulsory for miners to wear. The helmet had to meet the standard of 40-pound in weight falling from 40-feet in height to ensure that a miner's head would be protected in a rock fall. Some helmets included side slots for mounting ear defenders for hearing protection, a cap lamp holder and face shield.