

Electrical haulage does not perhaps present as many difficulties and therefore does not require as careful handling as the above. This power is easily applied to both endless rope and main and tail rope haulage, and is becoming more popular.

Electrical pumping is rapidly increasing in favour. It is, indeed, highly probable that electricity has been more extensively applied to pumping in mines than to any other purpose. Electricity is specially suitable to the high speed pumps such as the Centrifugal and Kiedler.

Coal cutting by electricity in some districts is not as popular as with compressed air, but will without doubt become more extensively applied as the dangers due to its use are overcome.

Drilling by electricity has not up to the present competed successfully with compressed air owing to the difficulty of adapting it to drilling machines of the percussive class. With the rotary drill much may be said for it, and no doubt in the near future we may see it to the front with the rotary drill type of drilling machine.

The heavy, slow running, cumbersome fans are rapidly becoming displaced by the modern small running fans. Owing to the absence of gearing electricity is especially suitable to run the quick running fans of the Sirocco and Rateau type. Some excellent results have been obtained applying electricity to the above type of fans.

Electric lighting is extensively used in mines at the bottom of the downcast winding shaft, where there is hardly any danger from coal dust. This is meant for are lamps, but where General Rule 8 of the C. M. R. A. applies, all electric lamps must be of the vacuum or enclosed type, and protected by gas tight fittings of strong glass, having no flexible cord connections. The only disadvantage of electric lighting is where a failure of the electric lighting is likely to cause danger; in order to comply with the Special Rules as to the use of electricity, safety lamps or other suitable means should be kept ready for use in case of such an event.

Signalling in winding shafts and on long lengths of haulage roads is much used, as is also the case in sinking shafts, but it is specially suitable on haulage roads with sharp turns or a number of bends.

Shot firing by electricity has many advantages, and is becoming more universal, especially in mines liable to give off fire damp. Its advantages are too well known to discuss here.

Safety lamps may be relighted underground by electricity, any length away from a lamp station, provided the battery is not in the return airway, and where there is not likely to be any accumulation of inflammable gas. This saves a great deal of time and inconvenience, and does away with the use of a naked light to relight safety lamps. Electric safety lamps have not as yet been commonly adopted, they having proved a failure, chiefly owing to the fact that gas cannot be detected when using these lamps.

After trials with five different types of re-cue apparatus for miners, British and foreign, at the Howe Bridge Rescue Station, near Atherton, the Lancashire and Cheshire Coal Owners' Association have adopted the improved Fleuss-Siebe Gorman apparatus.

THE B. GREENING WIRE CO., Limited.

"During a recent visit to this establishment, we were so much impressed with the extent of the additions made to the buildings and plant in the last eighteen months, that we are giving illustrations of them.

The new Weaving Mill, which is probably one of the best structures of its kind in Canada, is 200 ft. long x 130 ft. wide. We noticed at the end, what appeared to be a temporary enclosure; and in answer to our inquiry, it was explained that this will be removed, and further extensions made as soon as trade warrants it. The building is devoted entirely to wire weaving machinery, and it was interesting to see the ponderous looms, some of them over 15 tons in weight, making, with apting mining screens, etc., as wide as 72 inches; and the fast running smaller looms engaged in making meshes as fine as No. 70 of brass wire for sleeping car ventilators.

The other buildings shown are the Wire Mill Cleaning House which has a capacity of 50 tons per day; and the Carpenter Shop which is isolated from the other buildings, the increased yard room being used for the different kinds of lumber.

We can only make casual mention of the many other interesting features of this important industry such as Wire Rope Spinning; Wire Drawing and Galvanizing; Poultry Netting, Twisting Machines, Presses for perforating all kinds of metals for all purposes; Automatic Wire Chain Machines for making the celebrated Greening's chains, etc. These processes are carried on in the older buildings.

The first needle manufactory in France was started by an Englishman, named Christopher Greening, at Saint Omer, and the town is this year celebrating the four hundredth anniversary of the establishment of the industry.

About 1600 A. D., it is recorded that at Tintern Abbey on the Wye, pins and needles were manufactured by a Mr. Greening.

In the year 1630, a proclamation was issued by Charles I. to the effect that the home industry had made such advancement that further imports of wire were prohibited.

About the year 1700, Nathaniel Greening, who came from Tintern Abbey, commenced the manufacture of wire at Warrington. A few years later the firm of Greening & Rylands was established, and carried on business until the year 1840, when the partnership was dissolved. Mr. Greening taking his sons into business, and establishing the firm of N. Greening & Sons; Mr. Rylands' sons continuing under the firm name of Rylands Bros.

It was the firm of Greening & Rylands that the late Benjamin Greening, second son of N. Greening of the firm in question, served a seven years apprenticeship as a wire drawer; then, commencing business for himself, continued until 1858, when he removed to Canada, and became one of the pioneers of the wire industry here.

Under the firm name of B. Greening & Co. he commenced the drawing of wire, wire weaving and rope making, and for many years carried on a successful and steadily increasing business until his death, in 1877, when he was succeeded by his son, S. O. Greening, who built new works and