



AUSTEN BROS.

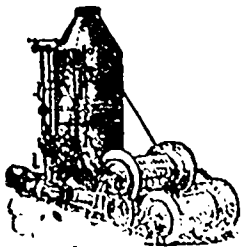
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It is not affected in the least by change of temperature; neither Fire, Lightning, Electricity or Concussion can fire it, and nothing but the action of the Detonator or the cartridges can make it explode. Since its first introduction THERE HAS NEVER BEEN A REPORT OF A SINGLE ACCIDENT OR LOSS OF LIFE either in its use or manufacture. Any explosive containing NITRO GLYCERINE when exposed alternately to moist and dry air is liable to SPONTANEOUS IGNITION, and such is reported against by H. M. Inspector of Explosives 31-XII-90. Hence the terrible accidents which are constantly occurring from the use of Dynamite whereby THOUSANDS OF MINERS HAVE BEEN KILLED.

ROBURITE is also MORE ECONOMICAL TO USE than any other explosive. This has been clearly demonstrated in the ONE HUNDRED AND THIRTY FOUR COLLIERIES IN ENGLAND that are using it exclusively, and Miners in Nova Scotia have only to study closely the character of the material to be operated on, and after a little practice will discover that a very small charge of Roburite will do all the work that larger charges had previously been used to do. MORE COAL CAN BE GOTTEN BY ROBURITE AND AT LESS COST than by any other explosive, whilst at the same time ALL RISK OF ACCIDENT IS AVOIDED. These are facts which should be well studied by Managers of Mines and Miners who have any regard for their lives and the comfort and happiness of their wives and children.

Manufactured in Halifax and for sale by

THE CANADA EXPLOSIVES COMPANY, Limited.

Office: No. 2 DUKE ST., HALIFAX, N. S.

MINING.

COAL TRADE.

From Report of L. Madden to the Department of Mines, Year 1891.

FOORD PIT—On one side of the mine the temperature is about 80 degrees, and necessitates a considerable quantity of air to keep it cool enough for the men to work, and as they proceed to the dip the gas makes freely, and unless greater power be used, there is no means of increasing the volume of air, and it is necessary to obtain increased airway, the English slopes that were sunk 1700 or 1800 feet have been started sinking again, and a place turned off the north level of the Foord pit to cross-cut the measures and meet the slants, thus as there are two slants when completed, will make a good travelling way and air-way, and give a good field of coal, giving the Foord pit two more seams viz, the Cago pit and four feet seam immediately overlying it, all down-hill for the coal excepting through the tunnel, which will be about 300 or 400 feet, and as the water now finds its way to the Foord pit, they will not experience much difficulty from that source. There has been some five or six places driven into the old works, which would seem to indicate some errors in the old plans; these places had to be built off with iron rails and brick and sand; they have had many difficulties to contend with, but so far every difficulty has been met, and this mine is again assuming its usual appearance.

Third Seam Slopes.—It is understood that the Cago pit and Third Seam are connected by a tunnel some 250 feet in length, and the extension of this tunnel has cut another 4 feet seam of the best coal probably in this country, and a band of iron stone which carries 45 per cent. of iron. It takes time to advance levels and get new works like this opened out, but I am pleased to say that this has been systematically and quickly done. During the year there was a back-balance driven up on the north side of Third seam, and nine bords turned away, and the levels extended a considerable distance beyond.

On the south side there has been a balance with 8 bords worked out nearly, and the levels extended. In the Cago pit seam the levels on north and south side have been rapidly extended and balances driven up.

In the Four Feet Seam the levels are also being extended and places driven up hill. Some of the iron has been taken out and roasted at the mine with satisfactory results. This seam of coal will be worked long wall.

SPRING HILL MINES.—It is unnecessary for me to say anything at length in reference to the explosion which occurred here on the 21st of last February, the investigation having been published in last year's report. I may, however, say there was a large staff of officials employed at this mine, all men of considerable practical experience, some of them extending over a period of thirty years. I was familiar with all of them, and had many private and public interviews with them, but never heard one of them to express fear of any kind in reference to the occurrence of an explosion; they one and all, like myself, appeared fully satisfied that everything was safe. I myself have had 30 odd years' experience in mining, and considered this mine one of the safest in my district; and further I may say, that six men, all good practical miners, most of them holding certificates as underground managers and overmen, were appointed by the workmen to examine the mine, and do so only a day or two previous to the explosion. I was present and read the report the evening before the explosion; they reported everything as satisfactory. The day previous to the explosion I travelled the section of the mine in which the explosion occurred, accompanied by H. Swift, "manager," a man of large practical experience in mining both in this and the old country. We were then both satisfied everything was in good order. The above goes to prove that in our profession of miners we have something yet to learn. As the years roll on our mines are gradually becoming deeper, and the vertical pressure greater, and in my experience as the depth of the mine increases fire damp also increases. It would therefore seem that vertical pressure and atmospheric pressure are both active agencies in liberating gas from the strata, if there be any pent up seeking admission into the work.

It was only two weeks after the explosion when the mine was again being partially worked, the damage underground being slight when we think of the terrible loss of life. These collieries are now comparatively clear of gas. At the working faces there are times when a few inches is found by the fire-boss, more especially in up-hill places where the brattice is not kept close up; but as to gas being in standing places or old work, I never found it, nor do I know of any man who ever did. The overlying strata in Cumberland County does not carry fire-damp like the Pictou County coal seams. The Pictou County coal basin has for its cover bituminous shale, while Cumberland County coal basin has more freestone and fire clay, which accounts for being less gas than in Pictou collieries. Safety lamps is the only kind of light now used in this mine. Explosives are not used.

There has been quite a lot of work done in the air-ways, and the volume of air considerably increased. The new lift which was sunk last year in the East slope has been opened up this year, and levels driven east and west. During the year the West slope has been sunk down 1200 feet. There is also a new lift in the North slope, and one in the East slope 600 feet each, and 1200 feet in the West. Properly speaking, we do not know the extent this lift may be driven westwardly, as every year further developments are made of this seam westerly, until now they are proven for some miles with slight variations southerly, caused by up-throw dikes or faults. Easterly the No. 5 slope is proved to some extent a distance of one mile roughly speaking.

(To be continued.)