

process should be most readily applicable. Indeed, experiments carried on by the inventors on samples of Bruce Mines ores have shown a saving of 93.5 per cent. of the values. One need not be a confirmed optimist to hope for great things from this new process.

An article entitled "Some Facts About Cobalt" appears in the issue of *Canada* for May 18th. While the writer of the article in question is perfectly justified in warning the British public against investment in some of the prospectusless Cobalt undertakings which are now being floated in London, he goes to extremes in stating that Cobalt's record for the last twelve months is unsatisfactory. The writer also attacks a recent Canadian promotion and stigmatizes as an extravagant falsehood, "sufficient to destroy all confidence in the company or its directors," a statement of one of the promoters that in one of the company's mines ore to the value of three millions sterling had been blocked out above the one hundred foot level. As many of our readers know, this particular statement is strictly within bounds and is vouched for by no less an authority than Professor Miller. As to the Cobalt district, though doubtless many worthless properties have been foisted on the public, there is probably no mineralized area in the world, of like extent, comparable in point of richness of silver values; nor are we aware of any silver camp which in so short a time has equalled Cobalt's record in the matter of output or dividends. In short, there is no mining district in Canada where it should

be a matter of so little concern whether British capital is invested there or not.

The reports of the Mines Inspectors for 1906 for the Newcastle (England) District shows that approximately 28,000,000 tons of coal were raised during that year. Beside 347,162 tons of fire-clay, small quantities of ironstone, brick shale and ganister were mined. For five successive years a record output of coal has been raised in the district. Among permitted explosives used in the collieries, Bobbinit stands at the head, 281,808 pounds of this explosive having been used. Saxonite ranks next, with 206,567 pounds. In other explosives, gunpowder has 3,256,687 pounds to its credit. The disc class of coal-cutting machine has precedence in this district over others, and compressed air is used as motive power more extensively than is electricity.

In the west of Scotland district, 18,897,278 tons of coal were raised, fire-clay 492,350, and ironstone 727,158. It is true, also, in this district, that the disc coal-cutting machine is by far the most popular, and compressed air is the favored motive power. After gunpowder, gelignite is more extensively used than any other explosive.

Yorkshire and Lincolnshire are credited with 32,547,905 tons of coal, all of which comes from Yorkshire. The same remarks about the disc coal-cutter and motive power apply again. A great variety of explosives are used in this district. Bobbinit comes first, with gunpowder a close second. The Marsant safety lamps, fitted with lead rivet locks and burning colza or colza mixed with paraffine, are most largely used.

MICA IN ONTARIO

By E. T. CORKILL

The mining of mica in Ontario dates back to about the year 1860, when a quantity of large and carefully selected sheets from lot 17, in the ninth range of the Township of North Burgess was sold in Paris for the use of the French navy, at a price of \$2 a pound. Some of this mica was in sheets twenty inches square, or larger. At this time, 1860, and for the following thirty years, mica was used chiefly for stove fronts, lanterns, lamp chimneys and also instead of glass in the windows of ships of war, to save breakage from concussion. The production of mica from the sixties until the beginning of the nineties was chiefly as a by-product of apatite. These two minerals are very intimately associated, and during that time there was a large trade in apatite, with a rather small demand for mica, and then only for the large sizes. As a result the deposits were all worked for apatite, and the mica was simply a by-product. Between 1890 and 1895 mica, particularly phlogopite, or amber mica, was first used in the electrical industry, which gave an impetus to the industry in Ontario. Prior to the time the small sizes of mica had not been marketable, thus this new industry created a market for a size of the material of which a large quantity had already been mined and thrown away as useless. This has, therefore, been re-sorted, and the small sizes previously thrown away saved and marketed. The sizes

of amber mica now asked for by the buyers, and the approximate price which the cleaned mica will bring, are the following:—

1 in. x 2 in.....	5-6 cents per pound.
1 in. x 2 in.....	10 "
1 in. x 3 in.....	20 "
2 in. x 3 in.....	45 "
2 in. x 4 in.....	65 "
3 in. x 5 in.....	75 "
4 in. x 6 in.....	100 "

Mica, on account of its peculiar characteristics, has a wide field of usefulness. Its elasticity, non-conductivity and infusibility make it a mineral particularly adaptable for use in insulating armature slots, armature magnets, commutator cores, transformers, etc. A great many artificial substitutes have been tried, but none have been found as yet that have been satisfactory. In Ontario all the mica mined at the present time is phlogopite, or the amber mica of commerce. This mica is used almost exclusively in the electrical industry. A small quantity only is used in manufacturing lamp chimneys, for lights for windows, in stoves and peep holes in furnaces, which enables the operator to watch the process without suffering from the intense heat. Micanite has become an important factor in the