

which, at present, in all but very isolated cases, are being almost entirely neglected, and why? Because, as far as my information enables me to reply, of the heavy freights necessary to take these ores to the nearest smelters, customs duties, penalties, etc., which eat up all the value of the metal contained in the ore. In one case I saw the smelter returns, and after all these deductions had been made there actually remained for the payment of mining and concentrating charges \$7.50 per ton. This was on an ore making 45 per cent. zinc, and zinc was at this time worth about 7c. per pound. Yet there is no move being made to alter this. Around Vancouver there are zinc deposits which could be worked at a considerable profit if there was a smelter within reach. There are others that you gentlemen know better than I do. Yet these products to be got to market must be sent across the line into the United States.

**The Market for Zinc.**—It is open to proof that there are profits in zinc smelting and mining, and yet no endeavor to cut into the market for galvanized sheets, zinc salts or other form of zinc product has, as yet, been made. What is galvanized iron worth to-day in Vancouver? I am credibly informed \$100.00 to \$110.00 per ton. The English manufacturer obtains for his about £8, or \$40.00, per ton.

Vancouver is nearer and quite as well supplied with bottoms as England, to supply the South American, and Oriental markets. She is better situated than England in that she has within the province the crude material, the coal and even natural gas. England has to import all the ore now treated there.

India presents a big field for the marketing of zinc chloride which is used for the burnettizing of their railway ties; China and Japan for galvanized sheeting and other zinc products.

I have not in the foregoing processes made any very serious mention of electrical ones, as my experience has caused me to be somewhat prejudiced. I am informed that experiments are now being carried out along these lines in the province, so I refrain from passing any opinion.

I am also informed that experiments of this kind were carried out some time since in this province by a metallurgist named Schneider, but I understand they were not wholly satisfactory.

Finally, I would suggest that if a process should be wanted in a young, if one may use the term, province like British Columbia, the Swansea process I have given would be the most suitable, as it has stood the test of time. Other improvements and adaptations, that might from time to time be found necessary to meet requirements, could then be built up around this process.

#### **B. & A. ASBESTOS COMPANY.**

B. & A. reports a good profit from operations during 1913.

The mine now operated by the B. & A. Asbestos Company was first discovered in the fall of 1908 by a Mr. Labonte, a French-Canadian prospector, who sold it to the present owners in December of the same year. Construction of the plant was commenced early in 1909. At that time, the mines at Thetford Mines and Black Lake were supplying most of the asbestos produced in the Province of Quebec, and, with the mines at East

Broughton, Belmina and Rumpelville, which had then just been opened, competition was so great that the opening of another new mine seemed a foolhardy venture. Undaunted, however, by this and by the discouraging advice of their friends, the directors of the company pushed forward with the mine. Needless to say, they encountered many difficulties. Labor was scarce, on account of lack of accommodation for the men, the initial daily production was small, and, owing to the mine being practically unknown, what little fibre they did produce, they were unable to sell. Early in 1910, the company was re-organized, more capital was added, and operations were resumed on a larger scale. Improved machinery was installed to provide for a larger output and accommodation provided for the laborers. The daily production, under these improved conditions, increased gradually, month by month, during 1910, 1911 and 1912. In 1913, the B. & A. Asbestos Company had an average output of 125 tons of asbestos fibre daily, more than produced in a single day by any two other mines in the world. Nor has quality been sacrificed for quantity. The fibre is clean, long and free from grit. Experience and constant supervision has reduced the cost of production to a minimum. The percentage of fibre obtained from the rock on this property is far above the average.

The company is enlarging the pit and installing additional equipment with a view to increasing the efficiency.

The company is not contemplating an amalgamation with any East Broughton mining companies, as might be inferred from a paragraph in our last issue.

#### **MAGNETIC IRON ORE SURVEYS.**

The Department of Mines has published reports by E. Lindeman on Austin Brook Iron-Bearing District and Magnetite Occurrences along the Central Ontario Railway. The reports are accompanied by a number of maps prepared by Mr. Lindeman and his assistant, Mr. W. M. Morrison.

#### **HAILWOOD LAMPS PASS BELGIAN TEST.**

The Belgian Government has signed the authorization approving of the use in Belgium of the Hailwood oil lamp and also the Hailwood naphtha lamp, as manufactured by Ackroyd & Best, Ltd., Morley, England.

The Belgian Government tests are far more severe than the British Government tests, natural gas from the Grand Trait mine being employed in the gas tests. The lamp is subjected to most explosive mixtures of this gas and air at velocities of 5, 7, 9, 11, 13 and 15 metres per second, which is equal to from 984 feet per minute to 2,950 feet per minute. The whole series of the tests being repeated in horizontal currents, downwardly descending currents at an angle of 45 deg., upwardly ascending currents at an angle of 45 deg., vertical ascending currents and vertical descending currents.

These authorizations are especially interesting as the Belgian Government will not now add new lamps to their list unless they show special merit, and the details of the lamp are scrutinized very severely.