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Notice.

During Mr. Bell's absence in England, contributors and correspondents are requested to direct communications for publication to the Ottawa Office of the Review.

No Nickel Monopoly.

It is a common opinion among the uninformed that Ontario has a natural monopoly of nickel, that the Sudbury ores are inexhaustible, and that no matter what restriction be placed upon this industry, the world must come to Canada for its supply of nickel. As a matter of fact, says the *Iron and Coal Trades' Review*, during the five years 1893 to 1897 inclusive, out of the world's total of 23,652 tons, Ontario produced only 9,151 tons of nickel. At no time has Canada produced even one-half the world's supply. Large quantities exist in New Caledonia, not to mention deposits known to exist in similar quantities in Norway, Austria, Germany, Spain, etc. The Société le Nickel, which is controlled by the powerful house of Rothschild in Paris, has by itself produced up to the present time more nickel than has ever been extracted from the Sudbury ores, and this company is at the present time manufacturing quite half of the nickel that is produced. Besides this powerful corporation there are other nickel-mine owners supplying other European refiners who contribute at least 1,000 tons of nickel a year to the European market, and there appears no difficulty for any European refiner to obtain almost unlimited quantities of New Caledonia ores.

Costs of Mining.

Data concerning costs of mining are fragmentary and unsatisfactory. Many mining companies, especially those controlled by British corporations, withhold all information as to costs and tonnage output, limiting themselves to a bare announcement to the public of the financial results of the year's operations. There are no good reasons for secrecy in this matter. It is one in which the public has a very justifiable interest, and if the management is not afraid of criticism it should be willing to gratify such curiosity. If it is afraid to reveal these details, this in itself legitimately lays it open to suspicion. Most mining companies occupy a position before the world which is altogether different from that of a private manufacturing concern. Its stocks are offered in the open market, and the public is therefore deeply concerned in knowing not only how well the enterprise is prospering, but whether it is doing the best possible under the conditions it confronts.

Many American companies issue quite exhaustive analyses of costs, from which a great deal can be learned, but even here there is usually lacking much which an enquiring mind would like to have explained. The usual items include costs of mining, hauling, treatment and general expenses. Some include dead work also, but this is indefinite. No mine can be long operated without doing considerable dead work, but it is manifestly misleading to charge work performed for the development of new ore reserves under this head, as is often done. There are better reasons for charging it to capital account, for it properly represents part of the cost of the mine. Other items which should be separated and reported are costs of pumping and timbering. No less important is it to know the proportions of ore and waste rock. Such discriminations reveal the conditions under which mining is being carried on, and serve to explain what might otherwise seem like extravagant outlay in mining operations. It will give greater confidence in the management when it is contending against difficulties, for the truth as to costs will show itself in the financial results in any case.

Whatever the cause may be, the costs of mining in Canada are high, and of these the costs of drifting and shaft sinking are perhaps the greatest. In the United States the expense of shaft sinking ranges from about $15 to $25 per foot, according to location and to size of shaft, and an average cost of drifting in ordinary hard rock is about $5 per foot. At the Atlantic mine in Michigan last year 352 feet of shaft were sunk at the rate of $22.91 per foot, and 5,732 feet of levels were driven at a cost of $5.03 per foot. A comparison of costs in some other prominent mines will be of interest. At the Mercur mine in Utah the total expenses of mining and milling were $2.27 per ton. The ore treated amounted to 128,804 tons. The distribution of these costs was as follows:—Mining $1.05, hauling 45c., milling 68c., general 49c. At the Horn silver mines in Utah the distribution of expenses was:—Mining $1.87 per ton, hauling and surface work 70c., milling $1.27, general 47c.; making a total of $4.31, the tonnage extracted being 32,649. There was in addition a charge against the ore taken out of 50c. per ton on account of dead work. The mines of the De Lamar Mining Company in Utah furnish an instance of high costs, where a tonnage of 53,233 shows an outlay of $6.647 per ton. The mining here represented $3.578, and the milling $2.251 per ton. The Homestake properties, in the Black Hills of Dakota, which enjoy a high reputation for excellent management, are nevertheless not remarkable for extremely low costs. Here the mining and transportation expenses were $2.05 per ton, milling 80 cents, and general expenses 53c., aggregating $3.38. As examples of low costs we may cite the following:—The Atlantic Copper Mine of Michigan, where the mining expenses were $1.03, hauling 6½c., and milling a