

ANOTHER PROMISED REVOLUTION

When we read the literature disseminated by some promoters we seldom fail to find strange and wonderful accounts of properties or processes which are to revolutionize the mining industry, and to bring great wealth to those who are invited to subscribe.

We are hardly prepared, however, for such statements when we open the official report of a debate in the House of Commons. Yet Mr. W. F. Maclean, a member of the House, in discussing the refining of nickel, contributes some startling statements. We do not infer from his statements that he wilfully intends to mislead the public. We do not believe that he does. His remarks are, however, likely to prove misleading, and so we direct attention of mining men to them.

The report, in part, of Mr. Maclean's speech is as follows:

"I cannot pass judgment on certain information which has come before me in the last few months, and which has reached its culmination here in Ottawa in the last few days, but I believe that a process of refining not only nickel, but every other metal, has been developed in this country, and most of the work has been done in this city. A wonderful revolution in the process of reducing ores has been worked out, and demonstrated in the city of Ottawa, and with this result: whereas, heretofore, the International Nickel Company had to collect its ore in great heaps at Sudbury and roast it for a period of ninety days, the matte having then to be sent over to New Jersey, by this new method the process can be carried out within forty-eight hours. Instead of the International Company taking 100 pounds of their ore, and roasting it into matte which produces less than five pounds of nickel, by this new method they will be able to get 70 pounds of alloy, in a powder, from the 100 pounds of ore. That powder is then put in a crucible, and gives 50 pounds of metal, which, for convenience's sake, is called after the name of the inventor, Professor Burrows; and that 50 pounds of metal is the equivalent of 50 pounds of nickel in making nickel steel. There is the revolution. It has been effected in our own country, and I believe that it is a fact that out of 100 pounds of our nickel ore we shall get 50 pounds of nickel, which is the equivalent pound for pound of the nickel that is used in making nickel steel. And not only will this process apply to nickel, but to every other ore. The process is largely based on the making of hydrogen gas in a very cheap way out of steam. Any kind of ore can be treated in this hydrogen furnace. I have been following this process now for some months, and I know others who have followed it and who are more competent to pass judgment on it than I am, and the impression that has been made upon me is that this invention will revolutionize the industry."

Mr. Maclean then goes on to discuss what should be done by the Government in order to control the

nickel industry and says, "if there is a new invention in this connection, I would advise the Government to try to get control of it."

We assume that in arousing interest in the nickel question that Mr. Maclean is doing his utmost to further the interests of the Empire and that he really believes that he is showing the Government and the people how to take advantage of an opportunity of adding to Canada's industries and controlling the export of nickel. We have no good reason to doubt his sincerity, but we cannot agree with many of his statements.

Mr. Maclean says, according to the official report of the debate, that "out of 100 pounds of nickel ore we shall get 50 pounds of nickel." That statement is, of course, absurd. It can be put down to an error in reporting or in printing. From his previous remarks we imagine that Mr. Maclean said, or meant to say, "metal"—not "nickel." Otherwise Mr. Maclean would be claiming that the process would result in recovering 50 pounds of nickel from 100 pounds of ore which contained only 5 pounds of nickel.

We have then Mr. Maclean's statement that 50 pounds of "metal" derived from 100 pounds of nickel ore "is the equivalent of 50 pounds of nickel in making nickel steel." As this "metal" would contain only 5 pounds of nickel it would necessarily be chiefly composed of iron, which is the chief metallic constituent of the ores. It would probably contain also about 2 pounds of copper. We may be pardoned for hesitating to accept the inventor's claims so readily as has Mr. Maclean.

When Mr. Maclean goes on to say that "not only will this process apply to nickel, but to every other ore" we regret that we must conclude that only those who know very little about the treatment of ores will have a great deal of confidence in the process or in Mr. Maclean's remarks concerning it.

It may be that the process has some merit and that it will prove of importance in the nickel industry. Mr. Maclean's remarks concerning it, however, do not impress us very favorably.

Seneca-Superior Silver Mines, Ltd., was very successful in 1915, making a profit of \$568,501. The production for the year was 2,047,150 ounces silver. A large profit during 1916 is assured, as the remaining ore is being mined very cheaply. The mine is, however, nearly worked out and unless a new orebody is discovered, and the management holds out little hope for this, Seneca's profitable life will terminate early this year, the mine having lasted less than four years but having produced already over 5,000,000 ounces of silver at an operating cost of 10.6 cents per ounce. The cost per ounce for 1915 was 6.86 cents, a record for the Cobalt camp.