

ing as a mining engineer leaves nothing to be desired, considers that you have the largest thing in the country, and with such a scheme as recommended above, to use his own words, 'There is more money in it than all the mining undertakings in this Western country.' I understand that labor is comparatively cheap, you have all the necessary supplies handy, such as coke, oil, iron, lime, etc. If you take up this matter I would try to arrange a trip over there, when, I feel sure, I can work out arrangements and plans to give you a plant which would treat your ores at a good profit;

EXTRACTS FROM REPORTS ON THE MINE.

The mining property of the Cheticamp Copper Company has been reported upon by well known engineers. Copies of various reports and letters may be obtained from the Company. Extracts are given below:—

Dr. E. GILPIN, Jr., Deputy Commissioner of Public Works and Mines.—"You should continue your underground testing to ascertain the nature of the ore below the water drainage line, and, to determine clearly the extent of the metalliferous ground, as well as the general richness of its metallic contents. Should this work show a continuation of present conditions, you would have in a short time ground enough blocked out to warrant the investment of any amount of capital to install plant necessary for one of the largest copper mines in the world."

Dr. Gilpin has been head of the Mines Department of Nova Scotia for twenty-five years and besides being a member of numerous scientific and geological societies in Canada and Great Britain, has lately been made a Companion of the Imperial Service Order for his contributions to science. He is personally familiar with the Cheticamp district and believes the copper ore will become richer with depth.

Dr. GILPIN for the Government of Nova Scotia.—"I have on several occasions drawn attention to the probability of the northern part of Cape Breton yielding valuable deposits of gold, silver, lead and copper. However as an outside opinion was worth more than one from an official of the Government, and would carry more weight with the world at large, Mr. Woodman's services were secured. You will be pleased to learn that he considers the district promising and that their mineral deposits have been very much undervalued, and that they should, if properly prospected and developed prove valuable additions to our mineral wealth."

PROFESSOR WOODMAN for the Government of Nova Scotia.—"There is no doubt that the region occupied by the older rocks is one in which a number of districts are capable of successful development. I am more pleased to have arrived at this opinion because it has been reached by direct field work. Prosperity is far more likely to follow the healthy development of lasting investments which yield moderate rewards and I believe there is room for such in the ores of Cape Breton."

Dr. J. E. WOODMAN, B. A.; S. B., (Harvard) and Prof. Frederic H. Sexton, B. Sc. (Mass. Inst. of Tech.).—"Across the strike, a trench and natural sections show a breadth sufficient to give an actual thickness of 270 feet. Impregnation was not seen throughout this breadth but scattered well along it. It is certain, however, from direct and continuous evidence, that there is a thickness of 85 feet, entirely west of the slope head and on the foot wall side of the deposit. Upon a basis of a length of 860 feet, a surface breadth of 355 feet and a vertical depth of 115 feet; and allowing for topographical irregularities and a 50 foot working cover, it is estimated that you have actually blocked out 260,000 tons of rock, probably mineralized throughout.... The method of occurrence of the ore seems to point to fine crushing as the best means of liberation. The stamp mill is the cheapest means for this purpose; but it gives an ill-sized product, and with your chloritic ores would produce much slimes. The ore will probably require close sizing. Crushing should not be carried so far as to need pulverizers, but would be best accomplished by fine rolls."

"Concentration will follow crushing and sizing. In this, trial of special or patent treatment should follow that of ordinary methods; for the ore does not at present appear to offer any unusual difficulties. If jigging and table concentration fail, water classification may give better satisfaction. It would seem to us unnecessary to extract gold by cyanide bromo-cyanide or chlorination processes; because the gold will follow the copper in smelting, and can readily be extracted in the electrolytic refining of copper."

W. H. KINNON, M. E. Denver.—"The Company's copper outcrop consists of chalcopryrite carrying both gold and silver. The ore is very finely and evenly disseminated through the rock. This deposit, has, where most of the work has been done, a small leached zone; a zone partly leached affording a mixture of carbonates, oxides, sulphides and sulphates. Probably below this zone occurs the zone of permanent sulphides. Assays from veinlets, have given some high values. An 1800 pound sample of average ore gave me 3 p. c. copper, 4 oz. silver and 0.16 ounces of gold; but the point from which the sample had been taken had been partially leached, so it is assumable on reaching the unaltered sulphides the copper values will be somewhat augmented." Mr. Kinnon is a western mining engineer of large experience. He examined the mining property on behalf of Boston interests, who made a proposition of purchase to the then owners.

M. V. GRANDIN, M. E.—Mr. Grandin has been six years in the Cheticamp district in the capacity of geologist and mine manager. He has prepared for the company a comprehensive report on the mining property covering every feature of the undertaking, including water-power devel-