

The mine-owners say that the strike leaders are attempting to show that they concluded a better bargain than they did in order to strengthen themselves with the men.

PRECIPITATION OF SILVER FROM CYANIDE SOLUTION BY ALUMINUM

In 1906 S. F. Kirkpatrick, Professor of Metallurgy, School of Mining, Kingston, undertook some experiments, with the assistance of the Ontario Bureau of Mines, on the ores of the Cobalt district in order to develop a commercial process of treating them and saving the by products. It was found that the ores were fairly amenable to cyanidation even when they contained 2,000 to 4,000 oz. silver per ton; but the cyanide consumption was heavy, and zinc was not an ideal precipitant, tending to foul the solution and give a bullion below market requirements. Mr. Kirkpatrick found that aluminum could be used satisfactorily, the difficulties experienced by earlier experimenters being overcome by using the metal in the form of a dust. The process was introduced by the Deloro Mining & Reduction Co., in 1908, and has been in use ever since. It is also in use at the O'Brien cyanide plant.

In a recent issue, June 28, of the Engineering and Mining Journal, Mr. Kirkpatrick describes the process and gives the results obtained. In another article in the May 10 issue of the same journal, Mr. E. M. Hamilton discusses the use of aluminum as a precipitant of silver at the Nipissing plant at Cobalt. Mr. Hamilton states that the arsenic and zinc in solution interfered seriously with extraction and that this difficulty was overcome by substituting aluminum for zinc. Owing to the fact that aluminum does not form any compound with cyanogen, not only is the whole of the cyanide recovered which was combined with the precious metals, but also the additional loss of cyanide by direct combination with the zinc is avoided.

MAGMATIC WATER

Dr. A. P. Day at a recent meeting of the Geological Society of America exhibited a sealed glass tube about two feet long and an inch or more in diameter in which was about a pint of actual magmatic water. This was obtained by Dr. Day and Dr. E. D. Shepherd, of the Carnegie Geophysical Laboratory, from a little blister-cone a short distance from the main lake of lava at Kilaeua. Through a pipe they exhausted from the immediate surface of a mass of molten rock the gases which were being given off and which above the tube became ignited as flames. From these gases the two investigat-

ors, at a safe distance, were able to condense in tubes unmistakable samples of water.

In view of the fact that some investigators have shown that the exhalations from volcanoes in some instances contain very little water and doubt has been thrown on theories based on the assumption that magmas contain water, the work of Dr. Day and Dr. Shepherd is of special interest. By Prof. Kemp, of Columbia University, that pint of water must have been viewed with loving eyes.

IRON ORE CONTINUES TO GREAT DEPTH ON THE MARQUETTE RANGE

It was feared in the early days of iron mining in Michigan that the ore would not persist to any great depth; but the development work in recent years has shown that the iron formations are in many places ore-bearing at considerable depth. R. C. Allen, Director of the Michigan Geological Survey, in a recent report states that there is more ore in sight now than ever before. The Marquette district has shipped nearly 100,000,000 tons of iron ore and the mines have in sight above the bottom levels about 50,000,000 tons. According to C. K. Leith recent deep drilling in bottom horizons of the Negaunee formation "suggests that the beds of this horizon at great depths may ultimately be found to carry a larger tonnage of ore than those of any of the other horizons." Mr. Allen states that in the Marquette as well as in the Gogebic district development at great depth has changed what was formerly a hope into a practical certainty. Deeply buried portions of the iron formation are ore-bearing and are likely to be fully as productive as the shallower parts.

THE TERRITORY OF NEW QUEBEC

The Mines Branch of the Department of Colonization, Mines and Fisheries has just sent out a volume containing extracts from reports on the District of Ungava, recently added to the Province of Quebec. The report was compiled from various sources and edited by Theo. C. Denis, Superintendent of Mines. It is accompanied by a large map, coloured geologically in parts where the necessary information was available. The chief source of such information has been the reports of explorations by A. P. Low and Robert Bell for the Geological Survey of Canada.

The report includes much useful information on water powers, physical geography, climate, soil, plants and fisheries. Detailed descriptions are given of the country along the main water routes.

While no originality is claimed for the contents of the report the work is a very useful one, as it makes the information on Ungava readily available.