## GEOLOGICAL SURVEY OF NEWFOUNDLAND.

Gold Fields, Limited, are operating an auriferous mispickel deposit, which they are successfully treating for its gold and arsenie contents. Hitherto all attempts to extract the gold from this highly refractory ore, economically, proved ineffectual. Expensive plant that had been established from time to time resulted only in successive failures. Now, however, the new company who have the business in hand are not only extracting the gold contents successfully, but also the chief by-products, especially the arsenie, which finds a ready market in Canada and the United States. It is said to be of purer quality than any imported, and its production has become an established success. This is the only arsenie plant in North America. The ore is treated by a new process called the bromo-cyanide.

We have in Newfoundland many known deposits of almost an exactly simil it mispickel to that at Deloro, and, like it also containing sufficient gold and silver to be well worth recovering. There would appear to be an opening here for just such another industry, could the capital be found to exploit it.

Pyrrhotite, or magnetic pyrites, is a common ore in this country. It usually contains more or less nickel, and is similar to the ores upon which the great nickel industry of Sudbury, Canada, is founded. The percentage of nickel is generally very small, rarely exceeding 5 per cent., while the average is not more than 3 per cent. Our pyrrhotites may yet prove the basis of a valuable nickel industry when capital and enterprise are brought to bear upon their utilization.

Galena or sulphuret of lead is another mineral which should be receiving some attention. There are several well-known deposits of this valuable material, and years ago it was worked to a considerable extent in the district of Placentia and in Port-a-Port Bay. None of these deposits were exhausted, and it is a great pity that such valuable properties should be now lying unproductive. In the case of the Silver Cliff mine at Little Placentia, the ore was found to be highly argentiferous, which should prove an incentive to capitalists to re-open this promising property.

Manganese, or rather manganiferous iron ore, is an abundant mineral, and is now largely used in the production of spiegeleisen, a substance of growing economic importance. The deposits of this class of ore along the south side of Conception Bay have been prov-

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