

and fence posts to market. Buildings must be put up at farm and mine, and for these lumber is necessary.

"Most of the lumberman's cut of sawlogs or the output of his sawmill is transported elsewhere to find a market, and this is the case also with the silver, gold, copper or nickel won from the mine. But in the production and handling of these commodities much labor and capital are called into use. Communities are formed, and industrial and social development goes on. Water powers, so numerous in northern Ontario, are compelled to furnish power, light and traction. Pulp and paper mills are erected to make use of the abundant supplies of spruce and poplar. Roads and railways are built. Schools, churches, hospitals, and other institutions with improvement and amelioration as their end, come into being. So too, unfortunately, do jails and 'blind pigs,' for crime and excess accompany the human animal whether he is found in forest or mine or the crowded town."

The 1913 production was valued at \$4,890,699 greater than that of the previous year, when the total was \$48,341,612. There has been an increase of 112 per cent., compared with five years ago.

Part 1 of the report, in addition to the statistical review of the mineral industry, contains descriptions of the mines of Ontario by Mr. T. F. Sutherland, Chief Inspector of Mines. A paper by Dr. A. P. Coleman describes the structural and age relations of the pre-Cambrian rocks north of Lake Huron, which are of great interest from both the scientific and economic points of view. Mr. G. R. Mickle, Mine Assessor, in co-operation with Professors W. H. Ellis, J. W. Bain and E. G. R. Ardagh, contributes an important paper on The Chemical Composition of Natural Gas Found in Ontario. This paper adds many interesting facts to our knowledge of this valuable substance.

Mr. T. F. Sutherland's report on Mining Accidents gives an account of the accidents and an analysis of fatalities. Numerous suggestions are given for prevention.

Dr. Coleman's paper on the pre-Cambrian rocks north of Lake Huron is presented after many years' study of the district, and is an important contribution to our knowledge of the formations which yield a very large part of the minerals produced in Canada.

The paper on Chemical Composition of Natural Gas in Ontario will be read with much interest. The literature contains scant information on this product of the Province. Natural gas is used in large quantities for household purposes and its composition is obviously a matter of great importance.

Part 2 of the report contains a description of the Kirkland Lake and Swastika gold areas, by Messrs. A. G. Burrows and P. E. Hopkins. This report was published some months ago as a separate bulletin and extracts from it have appeared in the Journal.

## FOREIGN LABOR IN THE MINES

We have drawn attention in these columns to the large number of foreigners among the miners in Canada and the United States. A very large proportion of the underground force at nearly every mine is made up of men who are not natives and most of whom have been but a few years in the country. Many of our best miners are of this class. They do their work well and provided they are law abiding they are welcome. Unfortunately their lack of acquaintance with our laws and customs, and their unfamiliarity with the language are frequently the causes of regret to employers and employees alike. The miner who cannot understand the orders he receives from his captain is at a grave disadvantage and often the source of trouble for his companions. The tendency to pretend understanding while in fact quite ignorant of the captain's orders is often the cause of accidents.

Mr. T. W. Gibson in his recently issued report says of these men:

"A large proportion of the labor in mine and lumber shanty, and in railway and wagon road-making, is of the unskilled type, where muscle counts for more than mind. Very much of this is supplied by immigrants from foreign lands—chiefly those of continental Europe—and hence a surprisingly large share of the industrial population of the north is composed of Finns, Poles, Austrians, Italians, Bulgarians, etc. There are also Syrians in considerable numbers, and Greeks, but they are usually in trade, and are rarely found engaged in manual labor. Whether or not the presence of large numbers of non-English-speaking laborers is wholly desirable, this is perhaps not the place to discuss, but the fact is they are there, and in response to a demand. Mine managers and railway contractors assert, and no doubt with truth, that they could not operate their mines or build their embankments were it not for this foreign labor. Anyone looking over the list of mining accidents, compiled by Mr. T. F. Sutherland, Chief Inspector of Mines, cannot but be struck with the large percentage of names of foreign origin. Doubtless there is a connection between this fact and the comparatively high death and accident rate in the mines of the Province. In part this may be due to unfamiliarity with the English language and the difficulty of comprehending quickly spoken orders in an emergency. Mental traits have also to be reckoned with, and the fact that very few of these men were miners before coming to this country, or at any rate to this continent. Ignorance of the risks in mining and the handling of explosives, a certain lack of resourcefulness in the presence of danger, amounting almost to inertia or even stupidity, and other characteristics, contribute to the same result. The building up of a strong force of capable and experienced miners such as the mining industry of Ontario now imperatively requires, will be a slow process, but when accomplished it will mean very much for the effective and economical operation of our mines."