

ation is equally startling. These extraordinary results open up a field whose limits are practically boundless.

The Geological Survey has recognised the tremendous possibilities and its reports on the Western coal areas will be read with more than usual interest.—Geological Survey "Press Bulletin."

### CANADIAN IRON ORE DEPOSITS.

**F**OLLOWING the successful experiments in electric smelting of iron ores which attracted attention throughout the world, and have led to many complimentary references to Canada as an enterprising and up-to-date country, says the Ottawa correspondent of the *Toronto Globe*, the Minister of the Interior, upon recommendation of Dr. Eugene Haanel, Dominion superintendent of mines, has authorised an investigation of the iron ore resources of the Dominion. This cannot be undertaken any too soon. In the past few years there have been numerous inquiries as to the extent of Canada's iron ore deposits, and of late requests for information on the same subject, possibly with a view to investment, have come from several other countries. The work to be done this summer will be divided into three sections.

The field work in Eastern Ontario and Quebec will be in charge of Mr. Fritz Cirkel, M.E.; that in Western Ontario of Mr. Shele, M.E., and that in Nova Scotia, of Prof. Woodman. The completed report will treat the economical side of the question rather than the geological, as it is desired to meet the wants of the practical miner and investor. Such geological data, however, as are necessary for a complete understanding of the ore formations, etc., will be given. Magnetic surveys will be made of those deposits, or portions of deposits, which appear to be the most promising, and samples will be collected for analysis. In view of the constant inquiries sent to the mines office respecting water power near different iron ore deposits available for electric smelting, the approximate horse-power of different water-powers met with during the progress of the examination will be ascertained whenever possible. Timber available for mining purposes and for the manufacture of charcoal will also be described. Magnetic surveys will be made independently of the field parties.

### PROFESSOR BROCK'S REPORT ON ROSSLAND MINING DISTRICT.

**L**ODE MINING in British Columbia has made a relatively larger advance in the value of its products since 1892 than any other branch of the mining industry of the Province. In that year the proportion lode mining contributed to the total mineral production was barely \$100,000 out of a total value of \$2,978,530, while placer gold was four times as much, and coal the comparatively large value of \$2,479,000. Five years later—in 1897—the total production from lode mining was \$7,052,431, placer gold \$513,520, and coal and coke \$1,737,717. Last

year the respective proportions of the year's total of \$22,461,325 were: From lode mining \$15,319,364, placer gold \$969,300, coal and coke \$5,511,861, and miscellaneous \$660,800.

The foregoing figures will serve to show that lode mining has become by far the most important branch of the mining industry of the Province. It is, therefore, a matter for congratulation that the Rossland mining district, which has produced during the last twelve years a total value of nearly \$34,000,000, with an average yearly production for the last five years of rather better than \$4,250,000, is being systematically examined by members of the Geological Survey of Canada, with Professor R. W. Brock in charge of the investigations. In the belief that the information contained in Mr. Brock's "Preliminary Report" will be of more than ordinary interest to many readers of the *B. C. MINING RECORD* who would not otherwise have this valuable publication brought to their notice, it is reprinted in this month's issue.

As a much more complete report is to be published later, by the Geological Survey, the pamphlet under notice partakes more of the nature of a progress report or summary, based upon the results of the field work done at Rossland in 1905, consequently it deals with only a few features of the complex questions requiring elucidation. It is noted that two questions in particular are having attention in the investigation still being carried out. These are (1) do the ore bodies now being worked extend to greater depths? and (2) is it likely valuable ore bodies occur outside the area already being worked? The examination of existing mines and surrounding territory is being made exhaustive and thorough, so that the conclusions that shall be arrived at when this investigation shall be completed should be of great assistance and value to those interested in the development of the mineral resources of Rossland camp.

While no comprehensive review of Mr. Brock's observations in his preliminary report is here attempted, there are a few points to which it is desired to call particular attention. They are briefly summarised in the following sentences:

(1.) The difference between the value of ores shipped during the earlier and later years of the camp, respectively, represents only in part a lowering of the grade of the ore in depth. Mining and smelting costs now being considerably lower, much more ore can be profitably mined and shipped than was the case years ago, consequently ore sorting is not nearly so close as formerly.

(2.) While it cannot be predicted with full assurance of profitable results to what depth pay ore will be found, it may be said that prospects for deep mining at Rossland were never before so favourable as at present, consequently prospecting operations to deeper levels are quite justified by the present outlook.

(3.) Concentration, while still presenting difficulties, will probably yet be found practicable and profitable, prolonged experiments having indicated