

or quarries in Canada, it is from the reports or records of this Branch that your enquiry will be answered. This work is done largely by correspondence supplemented by personal visits to mines and quarries throughout the country.

Owing to the frequent changes taking place in the mining industry, the opening up and development of new mines or the re-opening of old ones, the establishment of new clay working or lime burning plants, etc., etc., the staff must be ever on the watch to keep in touch with development and progress. Not only is a record of production published but the Division is expected to keep fully informed as to markets and prices of mineral products, exports, imports, and all other data of interest or value to the mine operator.

Chemical Laboratories, Ore Concentration Laboratories, and Fuel Testing Plant:—The Branch is provided with a well equipped chemical laboratory for the assaying and analyzing of ores, minerals and rocks. Most of this work is purely departmental, i.e., examinations are made of material brought in by members of the staff both of the Mines Branch and of the Geological Survey. Public work is however undertaken when desired at rates similar to those charged by commercial laboratories.

The Ore Concentration Laboratory and Fuel Testing Plant are located on Division street. Experimental work in ore concentration has so far been confined to iron ores. Tests have been made on the concentration of various Canadian magnetites in lots of from 5 to 10 tons. The laboratory is equipped with one complete unit of what is known as the "Gronday" concentrating apparatus. This work is of great importance to Canada as there are large quantities of low grade magnetites in this country which may become great assets if it can be shown that they can be concentrated economically.

In the Fuel Testing Plant investigations are being carried on to determine the value of peat as a power producer. The plant is equipped with a Korting peat gas producer, a 60 h.p. gas engine, etc., while a gas producer for bituminous coal has recently been installed for the testing of coal fuels.

The lack of coal deposits in the province of Ontario and Quebec, the most densely populated sections of Canada and the high cost of imported fuels, make the development of peat fuel of immense importance to the country. For demonstration purposes, the Department acquired a peat bog at Alfred, Ont., 65 miles from Ottawa, on which an Anrep peat machine has been operated during the past two seasons producing air dried peat. Such peat as was not required by the Department in its fuel testing station at Ottawa has been disposed of to the public, chiefly in Ottawa and has been in great demand.

Peat bogs in various parts of the country have also been investigated to determine their area, depth, character of peat, and so on.

Electric Smelting.—The subject of electric smelting of iron ores has been given special attention by the Director, Dr. Haanel. Reports on the industry of electric smelting in Europe and on the experimental work undertaken by the Department at Sault Ste. Marie in which the economic possibilities of electric smelting were amply demonstrated, have already been widely distributed, while special bulletins are issued from time to time to keep the public informed as to the most recent developments on the subject.

Zinc.—Special enquiry into the treatment of zinc ores.—Dr. Haanel, Mr. W. R. Ingalls of New York and Dr. Alfred Stansfield of McGill University have been investigating the problems involved in developing a suitable process or processes for the production of zinc and zinc products