

jurisdiction of the Minister of Inland Revenue. On that day it was transferred to the Department of the Interior, under the direction of the Hon. Mr. Rogers. It is hoped and expected that this will be a change for the better.

The Minister under whom the Rt. Hon. Mr. Borden has placed the Department of Mines has now an opportunity to do great service to the mineral industries of Canada. When he needs advice as to the administration of a department of mines he has but to consult his colleague, the Hon. Mr. Cochrane, whose regime as Minister of Mines of Ontario has left a lasting impress upon that province's extensive mining interests. Whatever differences of opinion may obtain as to the handling of such problems as the Gillies Limit, it is a fact that in this incident, as in others of a like nature, the Hon. Mr. Cochrane's policy was characterized by courage, foresight, and a notable disregard of practical politics. His generous treatment of the Ontario Bureau of Mines made possible the exceedingly satisfactory work accomplished and the high standing attained by that body. In no instance has politics been permitted to interfere with the Ontario Bureau of Mines.

And political interference, especially the appointment of men to the staff on account of party affiliations, is fatal in a technical department. If the Hon. Mr. Rogers is satisfied that he has the proper men as heads of Branches, then he should follow their advice. Only they can advise on the selection of qualified men for the staff, on the advancement or dismissal of others, and on the work to be undertaken.

Undoubtedly some reorganization should be begun at once. There are officers to whom superannuation is due. To prevent friction and overlapping the respective spheres of the Survey Branch and the Mines Branch should be more closely defined.

In Canada the mining industry is now second in importance. Agriculture is the only industry that means more to the country at large. Since fully one-third of Canada offers no possibilities except the opening up of mineral deposits, and since, even in the older provinces, mining is only in its infancy, the Hon. Mr. Rogers has a unique opportunity of benefitting his country by wise administration of a Department that has never yet been properly managed.

May his success be all that mining men hope for and that the country needs!

### THE COALS OF CANADA.

Nearly six years ago a thorough investigation of Canadian coals and lignites was begun by the Dominion Government. The Dominion Department of Mines was not then in existence, and the work was placed under the official supervision of the Geological Survey, of which Dr. A. P. Low was then director.

On account of the fact that the Mining Department of McGill University was well equipped, and from the further consideration that the government possessed no suitable laboratories, the work was assigned directly to the University, and Dr. J. Bonsall Porter was requested to make all arrangements necessary for an exhaustive investigation. After the organization of the Mines Branch, the investigation was transferred officially to that sub-department, the whole routine, however, being still arranged from McGill.

The research was conducted with a view to cover the taking of samples in the field, crushing and preparing them; washing, and mechanical purification; coking; steam tests; producer and gas engine tests; chemical work, and miscellaneous investigations. Dr. Porter was assisted by Mr. R. J. Durley, Mr. Theo. C. Denis, Mr. Edgar Stansfield, and a large staff of special assistants.

Carefully taken samples of representative Canadian coals were secured from mines in Nova Scotia, New Brunswick, Saskatchewan, Alberta, British Columbia, and Yukon Territory. The methods employed in testing these samples were ingeniously devoted to reproduce commercial conditions, particularly in the testing of coke.

Dr. Porter's general introduction, in which is outlined the scope of the enquiry, is followed by a comprehensive descriptive review of Canadian coalfields by Mr. Theo. C. Denis. In this section Mr. Denis has condensed a large amount of information gleaned from many sources, and has added thereto much fresh material. To the description of each mine from which samples were taken are affixed the reference numbers of those samples. This chapter is probably the most useful summary of the subject that has yet been published.

Part III., written by Mr. Denis and Mr. Stansfield, describes the precautions observed in taking samples and the manner in which they were taken. Many of the representative lots were over five tons in weight; while a few did not exceed 100 pounds. The essential history of each sample is given.

In Part IV., Dr. Porter outlines the process of sampling in the testing plant and laboratory; and in Part V. he presents a resume of the mechanical preparation of coal, a subject with which he has been long conversant. The results of many laboratory washing tests are appended.

Mr. Stansfield and Dr. Porter are responsible for the concluding section on the manufacture and testing of coke. Coking tests were made in specially contrived iron boxes which were placed in the ovens at the plants of five large Canadian companies. The results obtained throw light upon several important questions, such as the effects on coke of exposure to weather, the effect of time of coking, the effect of compression, and the effect of moisture. All of these results are syste-