

early experiments on popular and investment opinion, backed up by an abundance of conclusive testimony, brief mention of the question of signals and double-tracking, and reference to the elements of opposition and the results of practical demonstration, with some notes relative to the lines constructed during the forties, form the fourth chapter.

Chapter V., entitled "The Economic Basis of Transportation Development," is devoted to a discussion of transportation enterprise from the point of view of investors and capitalists. Railway transportation and canal transportation are compared—to show the advantages possessed by railway. State finding of transportation enterprise, rivalry between trade centres in its relation to promotion and capitalization and the promotion of private companies are the subjects dealt with in the sixth, seventh and eighth chapters, while chapter IX. is devoted to Reconnaissance and Surveys.

Promoters will be particularly interested in chapter X., which takes up legislative provisions as an element in promotion and capitalization. This embraces, among others, the questions of charter and general laws, right to operate, maximum rates for operation, limit of profits, monopoly privileges, tax exemptions and subsidy laws. Chapters XI. and XII. deal with the methods of appeal for financial support and individual and local subsidies to private companies, while thirty pages immediately following are devoted to State aid to private companies, the reaction against State and local subsidies and National aid to private companies. Chapter XII. on Transcontinental Railroads is especially interesting. It is followed by a section which relates to financial institutions and syndicates as agencies of capitalization, and the volume concludes with a good bibliography and an alphabetically-arranged list of sources and materials which is of inestimable value.

Much has been written upon the subject of railway promotion and kindred subjects, but for many reasons which it is unnecessary to enumerate, "Railroad Promotion and Capitalization" must take first place.—Wm. M.

Report on Chromite Deposits.—The Mines Branch of the Department of Mines of Canada has just issued a "Report on the Chrome Iron Ore Deposits of the Eastern Townships," by Fritz Cirkel, M.E.

In the last few years, owing to the rapid development of the iron and steel industry in Canada, more than ordinary interest has been manifested by the mining and metallurgical public in respect to the Canadian deposits of raw materials and ores, which enter into the manufacture of iron and steel products. To meet the demand for information on these subjects, the Mines Branch has undertaken to issue a series of reports on the Canadian deposits of the substances which form the basis of the iron and steel industry. Several reports on iron ores and one on tungsten ores have already been issued and the present report is another of this series.

The scope of the "Report on the Chrome Iron Ore Deposits in the Eastern Townships of the Province of Quebec" is best judged by quoting the Table of Contents, which is as follows:—

"Introduction.—Chapter I., Historical; Chapter II., The Chrome Iron Ore Deposits of Canada; Chapter III., Mining of Chrome Iron Ore; Chapter IV., Dressing for the Market; Chapter V., Market Prices, and Status of the Canadian Industry; Chapter VI., Chrome Iron Ore Mines: Prospects in Canada; Chapter VII., Chrome Iron Ores in Foreign Countries; Chapter VIII., Origin; Chapter IX., Composition of Chrome Iron Ores; Chapter X., Statistics and Chronology; Chapter XI., Determination of the Value of Chromium; Chapter XII., Uses of Chromium; Chapter XIII., Technology of Chromium and its Compounds; Appendix II., Ex-

periments with Chromite at McGill University; Bibliography."

The report is well illustrated by eleven plates in half-tone, from photographs of mines, mills and machinery; and fifteen diagrams, maps and drawings all illustrative of the chromite industry. The author of the report is Mr. Fritz Cirkel, Mining Engineer. This work was entrusted to Mr. Cirkel on account of his long connection, as consulting engineer, with the chromite and the asbestos industries; the deposits of these two substances in the Province of Quebec occur in the same region, and the origin of both is closely connected with the serpentine rocks of the Eastern Townships.

The typography of the report is very good and the book will form a welcome addition to the library of the mining engineer, the metallurgist, and the capitalist interested in the iron and steel industry. Moreover, it may be pointed out that the chapters on the uses, the technology, the metallurgy of chromium, and those on the origin, the composition of chrome iron ores, as well as the Bibliography, will be appreciated by all students and investigators on the subject of Chromium and Chromite.

The book is obtainable on application to Dr. Eugene Haanel, Director of Mines, Department of Mines of Canada, Ottawa.

The several occurrences of tungsten ore in Canada are described in detail, and a general statement is given on the geological occurrence of the ores, chemical tests, concentration, the uses of the metal, producing mines in other countries, statistics of the world's production, etc., while a very useful bibliography of the literature on Canadian and United States occurrences is added.

In view of the present condition of the iron ore industry of Canada and particularly Nova Scotia, where so much imported iron ore is being used, this report should be of special value to mining engineers, investors and others interested in the development of the iron resources of this province.

PUBLICATIONS RECEIVED.

Methods and Devices for Bacterial Treatment of Sewage.

—By William Mayo Venable, M.S., M. Am. Soc. C.E. First edition, 240 pages, 6 x 9, \$3. Published by John Wiley & Sons, New York, U.S.A.; Renouf Publishing Company, Montreal.

Publications:—New Catalogue of the Publications of the Geological Survey, Department of Mines, Ottawa, (No. 1073)—revised to July 1, 1909. Issued September, 1909.

White Horse Copper Belt—Report on the Whitehorse Copper Belt, Yukon, by R. G. McConnell, (No. 1050). Published October, 1909, by the Geological Survey, Department of Mines, Ottawa. Pp. 63, 4 illustrations, 8 maps.

Rossland Camp.—Geological Map of Rossland Mining Camp, B.C., scale of 1,200 feet to 1 inch. Published by the Geological Survey, Department of Mines, Ottawa, 1909.

Coal Fields.—Report on the Coal Fields of Manitoba, Saskatchewan, Alberta and Eastern British Columbia, by D. B. Dowling, (No. 1035). Published, October, 1909, by the Geological Survey, Department of Mines, Ottawa. Pp. 111, 14 illustrations, and colored map.

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