

A great deal of Chinese coal is coking coal. Some of the anthracite is sufficiently hard and firm to stand the burden of a blast furnace, though nearly all is much softer than its American namesake, similarity existing in chemical composition. A great part of the bituminous coal, however, carries a large percentage of ash, and very much of it is in structure so friable as to produce but a small portion of lump. When the coal deposits can be worked on a large scale and generally throughout the country, it will be found undoubtedly advantageous to crush most of the coal, wash it, and then either convert it into coke or to compress it into briquettes. The principle of briquetting has already been adopted by the natives, who take the coal dust, mix it with clay, and sell the clay balls in the Chinese cities for local consumption. By washing the coal from the Ping Hsiang mines, from which is made the coke for Hankow iron works, the ash content is reduced from as high as 28 per cent. to 8 per cent., and the sulphur from 0.65 per cent. to 0.1 per cent.

There has never been any approach to a complete scientific study of either coal or other mineral resources of China. About forty years ago von Richthofen made the first attempt to describe Chinese mineral wealth, and his publications, meagre as a first survey in such a huge country must necessarily be, are still referred to authoritatively. The Carnegie Institution of Washington sent, in 1903, a staff consisting of Messrs. Willis, Blackwelder, and Sargent, who explored a portion of the country. Other writers have also taken it up in part. Until the country has been thoroughly and systematically studied, it is impossible to say how great is China's wealth in coal. Enough, however, has been shown to indicate that China probably possesses at least as much coal as does the United States.

Of other minerals China has her share. Iron ore, and of good grade, is found generally throughout the country, but in large quantities only in a few localities. Owing to the fact that up to date there has been but one blast furnace in existence, although others are under construction, the iron ore deposits have been developed on a large scale only at Tayeh, near Hankow, in proximity to the furnace. This ore shows, on analysis, metallic iron ranging from 60 per cent. to 62 per cent., with phosphorus and sulphur as low as 0.05 per cent. Copper is found generally throughout the western part of the country. Tin is found and worked to a considerable extent. Petroleum is found in the northern and western part of the country, and an arrangement has been recently entered into between the Standard Oil Company and the government for its development on a commercial basis. Lead, zinc, and antimony also occur; in fact, of the last metal the world's largest single producer is China. Gold and silver are also found, but up to date only in comparatively small quantities.

The control of the mining deposits in China has been placed in charge of the Minister of Industry and Commerce, and a set of rules has been drawn up regulating the opening and working of mines, but, unfortunately, these rules are hedged in with so many Chinese restrictions that they do not attract capital on a large scale. It is instructive as showing the Chinese view of foreign participation, and also amusing, to read the opening paragraph of the mining regulations, to the effect: "The industrial enterprises of China are still in their infancy, and the inclination of the people to launch into industrial enterprises has not yet been developed; therefore,

it is inevitable that foreign capital should be introduced, but as the nation has been so weak, it is feared that many interests and privileges will be lost. Consequently, in the question of development by foreign means there should be restrictions. Should there be foreign shares, they should not exceed forty per cent. of the total amount of the capital."

Although the regulations appear to be fair, in a detailed examination by one with a knowledge of Chinese methods there will appear all sorts of opportunities for vexations and delays.

BOOK REVIEW.

THE MINING MANUAL AND MINING YEAR BOOK,

1915—By Walter R. Skinner, London 1915—Price, in England, 15s. elsewhere 17s.—For sale by book department, Canadian Mining Journal.

This is the twenty-ninth annual issue of Skinner's well known manual.

The work covers every section of the Mining Market, and many mines whose shares are not dealt with on the London Stock Exchange are included. In a world-wide industry like that of mining there are continual changes in progress, and consequently to embody every new phase, unwearied labor and much time are absolutely necessary. Neither has been spared to maintain the reputation of the Mining Manual and Mining Year Book, which, for completeness and accuracy, has stood unrivalled from its very inception. Every individual notice has been carefully revised and officially verified wherever possible. In previous volumes the work has been divided into sections, but with the present volume all companies are arranged alphabetically. This innovation has been decided upon owing to many of the companies widening their scope of operations and transferring their interests from one mining field or market to another. This has been a notable feature in recent years in connection with many finance companies whose interests have become so divided that although their title suggests a certain field of operations their list of holdings proves otherwise. At the same time the Index has not been abandoned, since it is thought that—especially to those not very familiar with Stock Exchange nomenclature—it will be found helpful for cross-references. Thus "Chartered?" will be found in the Index with a cross-reference to British South Africa Company and "Gold Fields" with a cross reference to Consolidated Gold Fields of South Africa. The object of the Mining Manual and Mining Year Book has always been to keep in touch with a company from its birth until its demise, and to carry out this policy, but at the same time avoid the work becoming too unwieldy, a new feature has been introduced, viz., a Supplementary Index. This Index, which immediately follows the Index proper, contains the names of those companies which have ceased to be of public interest or are in too dormant a state to justify their inclusion in the body of the work. By turning to the volume set opposite their names full particulars can be ascertained. Thus while particulars are supplied in the volume itself of 2,420 companies, the supplementary Index with its references to earlier volumes covers no less than 2580 additional companies.