

The numbers appearing after the names of writers or articles refer to the publishers listed at the end.

*Asbestos*.—Asbestos of the chrysotile variety is found at an elevation of 2,800 feet above the railway 3 miles north of Arrowhead, British Columbia. It occurs, according to M. F. Bancroft<sup>1</sup>, in a belt of serpentine derived by alteration from a dyke of basic igneous rock. Slip fibre 4 to 5 inches long is found and cross fibre  $\frac{1}{2}$  to  $\frac{3}{4}$  of an inch long. An interesting description by W. A. Rukeyser of the Quebec asbestos deposits appears in the Engineering and Mining Journal-Press.

*Coal*.—Field investigations are continued from year to year with a view to broadening our knowledge of the extensive coal fields of Canada. During the year the results of investigations by J. D. Mackenzie, J. R. Marshall and W. L. Uglow in the Cumberland coal field, British Columbia<sup>5</sup>, the Kananaskis area, Alberta,<sup>1</sup> and the North Thompson River area, British Columbia,<sup>1,5</sup> respectively, were published. A well illustrated detailed report by John A. Allan on the Drumheller coal field, the source of an important supply of domestic fuel, appeared as one of a series of publications issued by the Scientific and Industrial Research Council of Alberta. This Council also published in its second annual report the results of analyses and boiler tests, and notes on storage and utilization of Alberta coals.

*Copper*.—An interesting and unusual type of copper deposit at the Drum Lummon mine on the west coast of British Columbia is described by V. Dolmage.<sup>1</sup> The ore, which consists of chalcocite, bornite and chalcopyrite, occurs in pegmatite dykes near their contact with the altered quartz diorite of the Coast Range batholith. Chalcocite and bornite in nearly equal proportions constitute over 90 p.c. of the ore minerals. The ores also carry gold and silver. Copper deposits on Lasqueti island are described by J. D. Mackenzie.<sup>1</sup>

*Iron*.—Interest has been manifested for several years in the Belcher islands, Hudson bay, as a source of iron ore. As a result of investigations made in 1921, G. A. Young<sup>1</sup> reports that the iron-formation consists of five bands in which highly ferruginous zones 10 to 50 feet thick occur. Although no deposits of commercial value under existing conditions were seen, four representative samples gave on analysis 35.42 per cent to 44.96 per cent of metallic iron. A paper by F. Hille<sup>4</sup> on the Mattawin iron range, Ontario, contains notes on the character of the ore and the commercial possibilities of the deposit. The iron ore deposits of Deroche and adjoining townships are briefly described by S. Brunton<sup>1</sup> and a brief description by W. H. Collins of the geological features of the various types of iron ores of Ontario appears in the Canadian Mining Journal.

*Gold*.—Gold continues to hold a position of increasing importance in Canada's mineral industry, and as a result the gold deposits receive considerable attention from economic geologists. In a report entitled "Ontario Gold Deposits, their Character, Distribution and Productiveness"<sup>3</sup>, P. E. Hopkins presents concisely a wealth of information regarding the mode of occurrence of the gold deposits of Ontario and the extent of mining operations. C. W. Knight, in presenting a study of the Lightning River gold area, Ontario,<sup>3</sup> directs the prospector to the search for gold in the vicinity of feldspar porphyry and quartz porphyry intrusives.

J. C. Murray in a paper on the Shear Zones of Porcupine<sup>4</sup> points to the fact that not only do the ores occur in the vicinity of porphyry intrusives, but that shearing and deformation are essential to the localization of the ore bodies. The gold deposits of the Larder Lake area lie, according to H. C. Cooke<sup>1</sup>, within bodies of dolomite which were formed by the alteration of other rocks along sheared zones.