

## ECONOMIC GEOLOGY IN CANADA

**Copper.**—Some copper deposits in the Telkwa valley and vicinity, British Columbia, are described by J. D. MacKenzie and those of Highland Valley copper camp by C. W. Drysdale in the Summary Report of the Geological Survey for 1915. The same publication contains a short description, by E. L. Bruce, of the large body of sulphides discovered at Flin Flon lake north of Pas, Manitoba. The sulphides consist of chalcopyrite, galena, sphalerite, and pyrite. This deposit and another rich deposit of sulphide ore occurring on the west side of the middle arm of Schist lake, as well as other mineral deposits, were examined for the Manitoba Public Utilities Commission by R. C. Wallace and J. S. DeLury, and extracts from their report were published in various mining journals (6). "As a rule the sulphides occur in basic or intermediate volcanic rocks in close proximity to the younger granite. They have been formed as replacement deposits in zones of weakness, along fault planes or planes of brecciation. The massive ore at the centre of the deposits is mainly copper pyrites, banded with zincblende. Toward the margins copper sulphide gives place to pyrite, which grades insensibly into unmineralized schist." At Schist lake the centre of the deposit consists of very high-grade copper ore, and in spite of the great difficulties of transportation, shipments were being made during the winter of 1916-17. The whole of northern Manitoba is underlain by rocks of pre-Cambrian age in which there are large areas that have not been prospected, and that are worthy of attention.

**Feldspar.**—Feldspar is a mineral that is used chiefly in the pottery industry and in the manufacture of sanitary and electrical ware and enamelled brick and tile. It is used also in the manufacture of enamel ware and opalescent glass, as a bond in emery and carborundum wheels, as poultry grit and as a covering for tar roofing papers. A small quantity is utilized in making abrasive soaps, and a few tons of high-grade feldspar are used in the manufacture of artificial teeth. In "Feldspar in Canada" (2), by Hugh S. de Schmid, are to be found descriptions of the leading known feldspar deposits of the country. These consist of dykes, and occur in great numbers in southern Ontario and Quebec. Feldspar is one of the chief potash minerals, and the discovery of an economic method of extracting the potash would probably lead to greatly increased mining operations.

**Gold.**—Early in the year a short report by P. E. Hopkins on the Kowkash area (3) appeared. This area attracted some attention because of the discovery of small quantities of gold in veins cutting greenstones of Keewatin age. Occurrences of native gold and of tellurides in quartz veins and veinlets in Keewatin greenstone and later intrusions of granite and porphyry in the Boston Creek district, Ontario, are described by A. G. Burrows and P. E. Hopkins (3). Notes are also given by the same writers on an occurrence of gold at Goodfish lake (3), two miles northeast of Kirkland lake, Ontario.

Extracts from a report by R. C. Wallace and J. S. DeLury on gold-bearing quartz veins on Herb lake in northern Manitoba appeared in several mining journals (6). E. L. Bruce (6) describes the most important vein discovered on Herb lake prior to the winter of 1914-15 as occurring in a zone of schist 200 feet wide in massive greenstone. It is