

In a paper on the "Geology and mineral deposits of the east central Manitoba mining district", J. F. Wright<sup>3</sup> describes the gold of this area as having been deposited along fracture zones from residual emanations given off by an intrusive granitic magma, the residual material replacing the schistose rock and depositing quartz, various sulphides and gold.

V. Dolmage<sup>1</sup> describes the gold-antimony veins cutting Triassic argillites and sandstones near Tatlayoko lake, B. C. The veins consist of quartz through which are disseminated fairly evenly arsenopyrite, pyrite, stibnite, and two or three undetermined minerals visible only under the microscope, and which, judging from the assays, are probably silver-bearing.

A history of gold dredging on Fraser, Thompson and Quesnel rivers is presented by W. A. Johnston<sup>4</sup>, who also describes the Cedar Creek placers and the developments in the placer field of Cassiar district.

The gold-bearing veins of the Engineer mine, Atlin, have been described in some detail by W. H. Weed in the Engineering and Mining Journal-Press.

**Iron.**—The results of an intimate study of the magnetite deposits of Texada island and of the adjacent rocks are presented by C. O. Swanson<sup>1</sup>. The country rocks consist of (a) the Marble Bay limestone, (b) the Texada group or porphyrite, a complex series of rocks consisting mainly of a massive fine-grained porphyry, and (c) an acid intrusive thought to be a part of the Coast Range batholith. The magnetite deposits are replacement bodies formed by magmatic solutions in which the materials were concentrated by the crystallization of the intrusive. The assimilation of the limestone by the intrusive may have caused the iron oxides to be thrown out of the pyroxene and made available for segregation. Chemical and physical factors entered into the process, the chemical factor being probably dominant. From a consideration of the physical permeability and the chemical composition of the rocks into which the solutions were led it is concluded that the porphyrite was unfavourable both chemically and physically, that the limestone was favourable chemically but not physically, that the intrusive was favourable physically but not chemically, and that the heterogeneous parts of the intrusive, which included blocks and tongues of limestone, were especially suited both chemically and physically to replacement. These contain the largest deposits. The oxidizing effect of carbon dioxide was probably an important factor in the formation of the parts of the deposits that consist of relatively pure magnetite.

**Molybdenum.**—In a monograph on "Molybdenum, metallurgy and uses and the occurrence, mining and concentration of its ores", V. L. Eardley-Wilmot<sup>2</sup> describes the known Canadian molybdenite deposits and discusses the mode of occurrence of the ore and its origin. A paper by Charles W. Cook<sup>6</sup> on the molybdenite deposits near New Ross, N. S., contains an explanation of the origin of the deposits, as follows:—the granite country rock was intruded by a magma from which an aplite crystallized; a pegmatitic magma was injected into the aplite; and the residuum of the original magma, a concentrated solution of water, tourmaline, fluorite, molybdenite, bornite and probably silica, was injected along contacts between the aplite and pegmatite, between the quartz and orthoclase of the pegmatite and along the cleavage planes of the orthoclase of the pegmatite. This solution altered the orthoclase of the aplite and pegmatite to sericite, and the removal of the water in this chemical change and the falling temperature brought about the crystallization of the molybdenite, generally in close association with the