group of beds was found sufficiently rich in magnetite to be utilized as an ore without preliminary concentration. Dr. T. L. Tanton[1], presenting the results of a study of the eastern part of the Mattawin iron range, concludes that no merchantable bodies of iron ore have been found in the area examined either in the Keewatin or Windigokan iron formations and that the possible commercial value of the formation depends on the feasibility of employing a method of beneficiation.

Dr. J. E. Hawley[4] describes the geological features of the Sutton Lake area, northern Ontario, where iron formation occurs. No iron ore deposits of commercial value were observed. A description of the titaniferous magnetite deposits of Bourget township, Quebec, which are associated with anorthosite, is given by A. H. A. Robinson[3].

The genesis of the magnetite deposits near the west coast of Vancouver island has been discussed by Dr. W. L. Uglow[6]. He classifies these deposits as: (1) magnetite deposits in limestone; (2) magnetite deposits in andesite and andesitic tuff; and (3) copper-magnetite deposits in limestone, andesite or andesitic tuff and diorite. The larger and purer deposits occur in limestone. The magnetite is thought to owe its origin to the later granodiorite or granite. The writer contends that the magnetite bodies are not in the nature of dikes and sills solidified from a magnetite magma that intruded and brecciated the rocks, but are the results of the migration of iron-bearing solutions through previously fractured or porous rocks accompanied by deposition of magnetite within the fractures and, in places, preferential replacement of the country rock by magnetite from tenuous solutions of high penetrability. The contention is supported by a number of pointedly expressed arguments.

Lead and Zinc.—The zinc-lead deposits of Lemieux township, Gaspé peninsula, are described by Dr. F. J. Alcock[1]. The minerals, consisting of sphalerite and galena in a gangue of quartz and carbonates, with pyrite, marcasite and chalcopyrite present in minor amounts, occur in veins in shales and limestones of lower Devonian age. The Devonian rocks are folded, faulted and brecciated and are intruded by porphyry and syenite. The veins pinch and swell. In places they form sharp contacts with the enclosing rock and in other places brecciated zones occur in which there is a gradual transition from massive vein material to country rock. The ore deposits are thought to be genetically related to deep-seated intrusive rocks.

The Stirling zinc deposits of Cape Breton island have been described by Dr. L. J. Weeks[1]. These deposits are replacements in parallel bands of an old volcanic complex consisting in greater part of acid flows and tuffs. The ore consists of sphalerite, chalcopyrite and galena with varying amounts of pyrite, associated with blebs of silicate minerals representing the unreplaced parts of the original rocks. The sulphides are genetically related to quartz diorite and granitic intrusives.

The unique occurrence of a galena-sphalerite vein in the iron formation in the township of Genoa, Ontario, is described by Dr. E. S. Moore[5]. The galena and sphalerite cannot be regarded as part of the original formation, but are probably associated genetically with a later igneous intrusion.

Among the most important mineral deposits of the Windermere area are the silver-lead and silver-lead-zinc deposits which, according to Dr. J. F. Walker[1], are essentially of the fissure and bed-vein types and are generally associated with minor anticlinal folds in sediments or wrinkles on the limbs of the larger folds. The sulphides are chiefly galena, sphalerite, pyrite and a little chalcopyrite. Freibergite