

and in the intruded lavas and sediments near the contact. The quartz, sulphides and gold represent a residual magma or residual solutions from the granitic magma.

A discussion of the origin of the placer gold of the Barkerville area, British Columbia, is presented by W. L. Uglow and W. A. Johnston.⁷ The most important placers of this area rest upon bedrock beneath glacial drift. The gold was derived from lode deposits of the vicinity. During the long period in Tertiary and possibly late Cretaceous times, when the country was being gradually reduced to a nearly plain-like surface of erosion, oxidation of the sulphides of the quartz veins and gold enrichment in the upper oxidized parts of the veins must have taken place on a fairly large scale. With re-elevation the old plain-like surface was eroded and dissected by streams, in the gravels of which the gold was concentrated.

An examination of the placer gold deposit of Cedar creek, British Columbia, was made by W. A. Johnston.¹ The gold occurs generally in gravels lying on bedrock beneath the glacial drift. The gold-bearing gravels have possibly been more or less disturbed by glaciation. Although no quartz veins were found in the immediate vicinity of Cedar creek, the coarseness and angularity of much of the gold shows that it was not transported by streams far from its original source.

Other valuable contributions have been made, among which are those made by C. E. Cairnes¹ on deposits in the Yale and Similkameen mining divisions, by W. L. Uglow¹ on auriferous quartz veins in the Barkerville area, by Charles Spearman⁴ on the Kirkland Lake area, by A. G. Burrows⁴, Rowland C. Feilding and Louis D. Huntoon on the Porcupine area, and by Charles Bunting on the Premier mine, British Columbia.

Iron.—E. L. Bruce³ describes the occurrence of iron ore on Lake St. Joseph. The iron oxides are associated with sediments and form masses that are lenticular in form. It is thought that these sediments were deposited in basins on an old land surface, and that at various times iron-bearing solutions derived from the surrounding rocks by ordinary weathering deposited iron hydrates and iron carbonates. On account of regional disturbances various parts of the same lens have undergone different degrees of metamorphism, and the hydrated oxides have been changed to magnetite and hematite. An examination by J. A. Allan and Alan E. Cameron of the iron deposits in the vicinity of Fishhook and Moose bays on the north shore of lake Athabaska shows that bands of quartzite, dolomite, slate and schist have been impregnated by iron-bearing solutions. The red colour produced on weathering suggests that the quantity of iron in the rock is much greater than it really is. Thin beds of bluish hematite are found, the thickest bed observed measuring only 14 inches. A short description is given by T. L. Tanton¹ of the iron formation lying north of Gravel lake, about 51 miles west of Port Arthur.

Lead.—The Kingdon lead mine at Galetta, Ont., has for a number of years been an important producer of lead. According to M. E. Wilson¹ there are two veins, both of which occupy fault fissures. Sphalerite is associated with galena in a gangue of calcite. After carefully weighing the evidence as to whether the origin of the ore was superficial or deep-seated, Wilson concludes that the evidence is so conflicting that a definite conclusion is scarcely warranted.

Magnesite.—George W. Bain⁷ presents a discussion of the various types of magnesite deposits and their origin. The types are:—(a) magnesite as a sedimentary rock; (b) magnesite as an alteration of serpentine; (c) magnesite as a vein filling; (d) magnesite as a replacement of limestone. The deposits of Argenteuil Co.,