

on the character of the mineral discoveries and on the extent to which development operations had been carried on. These include reports by T. L. Tanton¹ on the Steeprock Lake area, by J. E. Hawley² on Ogden, Bristol and Carscallen townships, by E. L. Bruce³ on McArthur, Bartlett, Douglas and Geikie townships, by T. L. Gledhill⁴ on the Grassy River area, Sudbury district, by F. L. Finley and Geo. B. Langford⁵ on the Wasapika section of the West Shiningtree gold area, and by T. L. Gledhill⁶ on the Michipicoten and Goudreau-Lochalsh gold areas of Algoma district.

As a result of further investigations by H. C. Cooke¹ in the Argonaut mine, Gauthier township, Ontario, where the geological formations consist of Keewatin lavas, basalts and trachytes intruded by dykes of quartz diorite and syenite porphyry, it has been shown that the quartz diorite is of two different ages, that the ores were deposited from ascending hot solutions mainly through the zone of rocks heated by the later quartz diorite dyke, and that the dyke, although it did not give rise to the ores, rendered it possible, by heating the adjacent rocks, for the hot solutions to rise to their present level before being cooled sufficiently to precipitate their contents.

A number of occurrences of gold in western Quebec are described by W. F. James and J. B. Mawdsley¹. These include auriferous quartz veins in shear zones in the Keewatin lavas of Landrienne and Barraute townships, the gold deposits of Dubuisson township, which may have had their origin in the magma of an intrusive granodiorite mass, and those of Fournière and Cadillac townships, where the gold occurs in quartz veins and the adjacent country rock in shear zones in the Timiskaming sediments.

A report made by T. A. Rickard a number of years ago on gold mining in Nova Scotia has been published by the Nova Scotia Department of Mines. He points out that although the greater number of the Nova Scotia gold veins are of the interbedded type there is a striking difference between them and those of Bendigo, Australia, and that the methods of mining at Bendigo are not to be recommended for Nova Scotia. He suggests that gold mining in Nova Scotia must, in the future as in the past, depend mainly on the small enterprises of practical miners.

Auriferous veins of the Whitehorse district, southern Yukon, are described by W. E. Cockfield and A. H. Bell¹. The veins consist chiefly of quartz with subordinate amounts of calcite and barite and with galena as the most characteristic metalliferous mineral. These occur in a general way in a belt paralleling the trend of the Coast range and are found in the Coast Range intrusives, in the intruded older volcanics and in schists probably of Precambrian age.

C. E. Cairnes¹ describes briefly the geology and mineral deposits of the Lillooet valley. The economic minerals are deposited in geological formations of Triassic and Jurassic age and had their origin in the Coast Range batholith.

The placers and vein gold deposits of Barkerville, Caribou district, are described in detail by W. A. Johnston and W. L. Uglow¹. The most important placers are those that occur in ancient stream gravels resting on bedrock and buried in many places beneath glacial drift. The gold-bearing gravels on bedrock vary from a few inches to 10 or 15 feet in thickness and average 5 or 6 feet. The gold was derived from a belt of auriferous veins which, together with the enclosing country rock, were through the long process of time decomposed and eroded, the gold being deposited in the gravels by process of natural concentration. W. A. Johnston¹ reports also on the gold placers of the Dease Lake area. Most of the gold has been recovered from gravels resting on bedrock in the old high-level channels of Dease