

rocks at different points in the interior, particularly in the southern part of British Columbia in Mesozoic times. Many of the more important mineral deposits of British Columbia, such as the copper deposits of Hidden Creek, Britannia, and Allenby mountain, the gold-silver deposits of Salmon River district and the silver-lead deposits of the Slocan, had their origin in solutions given off by the magmas of these acid intrusives.

The lead-zinc deposit of the Sullivan mine lies in sedimentary rocks of Precambrian age. The Cretaceous and Tertiary formations carry seams of coal and lignite of great importance. There are economic deposits of other minerals in great variety throughout the Cordillera, and British Columbia is one of the leading mineral-producing provinces of Canada. The gold of the once famous Klondike region was found in placers of an unglaciated area and the gold of the Cariboo district occurs mainly in Tertiary placers that were unaffected or little affected by glaciation.

Section 2.—Economic Geology of Canada, 1927¹.

The purpose of this paper is to call attention to the most important reports and articles treating of the economic geology of Canada and published during 1927. The particular articles here referred to, although recently published, do not necessarily contain the best and most complete information on the subjects treated; for further information it is advisable to consult the Dominion and Provincial Departments of Mines. The reference numbers appearing through the text indicate the publishers as listed at the end of this paper.

Antimony.—In the Slocan mining division, C. E. Cairnes¹ studied the antimony deposits of the Alps-Alturas group. He found an interesting assemblage of late igneous and sedimentary rocks more or less severely metamorphosed. The sedimentaries consist principally of slates and argillites with certain dense-textured cherty rocks. Earlier greenstones, basic in composition, are probably andesites. The later intrusive rocks are chiefly granite batholith types with offshoots of stocks, dykes and aplite stringers, which have penetrated the older rocks in all directions, completely metamorphosed them and probably are responsible for the ore deposits. The stibnite occurs in quartz veins in a shear zone. The geology appears excellent for mineralization on a large scale; little prospecting has been done.

An occurrence of stibnite on Hyres island at the west end of Oxford lake is described by J. F. Wright¹. The stibnite occurs in massive form and in small flakes in a shear zone in quartz-sericite-ottrelite-schist, the stibnite-bearing part averaging about 3 feet in width and being exposed for 100 feet along the strike. Several tons of stibnite ore taken from a lens-shaped body of massive stibnite were estimated to carry over 50 p.c. antimony.

W. V. Smitheringale² presents a concise yet comprehensive outline of the geology of the world's antimony deposits, dealing in greater detail with Canadian occurrences. The only mines from which any appreciable quantity of antimony has been obtained in Canada are at West Gore, N.S., and Lake George, N.B.

Arsenic.—Owing to the heavy demand that was made two or three years ago for white arsenic, a complete survey of the Canadian possibilities was undertaken by M. E. Hurst¹. In the report presenting the results of this survey descriptions of the more important occurrences of minerals from which arsenic is obtained

¹ Contributed by Wyatt Malcolm, M.A., F.R.S.C., and P. J. Moran, Geological Survey, Ottawa.