

sumably comes, to a very large extent at least, from quartz veins in the Cambrian slates and quartzites, though it may also occur in limited quantity in the Cambro-Silurian, and has been detected in metalliferous lodes in the older crystalline schists. The *asbestos* is almost entirely confined to the serpentines of the volcanic portion of what has been styled the Lower Cambrian, and which occurs probably as an alterative product from dioritic rocks, rich in olivine. The serpentine is generally associated with slates and hard sandstones of that system. The *chromic iron* is also confined to this belt of rocks. The *silver ores*, which, in places, carry a fair percentage of gold, apparently belong to the same horizon as the auriferous quartz veins, though small deposits of argentiferous galena are found with rocks of the upper part of the Silurian system in Gaspé; while the ores of antimony occur in a series of slaty and micaceous schists which are either low down in the Cambrian or lie near the summit of the underlying system.

The sources of mineral wealth more especially prominent at the present time in Eastern Quebec, and about which the greatest amount of interest is centred, are three in number, viz., copper, asbestos and gold, and as these bid fair to increase annually in importance, a brief glance at their history and geological relations may be of interest.

The first official reports on the copper deposits of the Eastern Townships by the Canadian Geological Survey were made by the late Sir W. E. Logan, in 1847, when attention was directed by him to the occurrence in the townships of Ascot, Upton and Inverness of that mineral, which places were recommended by him as localities for trial. Explorations proceeded rapidly and resulted in the location of numerous mines at various points, principally in what was then regarded as the metamorphic portion of the series, subsequently styled the Quebec group, and more especially in what was afterward regarded as the middle and upper divisions of that group, viz., the Lauzon and Sillery formations. These rocks were at that time supposed to be arranged in a series of generally parallel synclinals, extending north-east and south-west. In the first or more westerly of these were placed the copper areas of Roxton, Upton and Acton; in the second, those of Durham, Tingwick, Inverness, Chester, Halifax and Leeds; while the third, together with what was regarded as the double synclinal of Sutton