

principal valuable ore minerals are argentiferous galena, argentiferous grey copper, and sphalerite.

In a paper entitled "Silver Mineralization at Great Bear Lake"<sup>4</sup> C. M. Furnival describes the bearing which certain field relations may have upon the problem of the source of mineralization in the area. The writer submits that the silver mineralization is genetically related to the parent magma of the basic sills.

**Water.**—A comprehensive study of the surface deposits and ground water supply of the Winnipeg map-area, Manitoba,<sup>1</sup> is incorporated in a report by W. A. Johnston. The waters may be broadly classified into three groups according to the ways in which they occur. One group comprises the shallow waters that commonly lie within 50 or 60 feet from the surface. These shallow wells are fed by the rainfall absorbed through the soil and are abundant only in certain areas where the surface deposits are porous. A second group comprises those waters that lie at various depths up to 200 to 300 feet beneath clay or other only slightly pervious material and do not rise appreciably in the hole when tapped by the drill. They are found in sandy or gravelly beds in the surface deposits and in porous strata of the bedrock. The waters of the third group are the artesian-well waters that rise to the surface or part way, depending upon the elevation of the ground at the well site and the amount of pressure. They occur in sandy or gravelly beds below clay in the surface deposits and in porous beds in the bedrock at various depths from 80 to 1,000 feet. Their source is the rainfall absorbed by porous beds, or from streams traversing these beds, through which the waters pass downward and laterally to the water-bearing strata in which it is held by the impervious rocks above and below, and which may lie at a considerable distance from the intake or source rocks.

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SOURCES OF REPORTS AND ARTICLES REFERRED TO IN THE TEXT:—<sup>1</sup>Geological Survey, Department of Mines, Ottawa, Ontario; <sup>2</sup>Mines Branch, Department of Mines, Ottawa, Ontario; <sup>3</sup>Department of Mines, Toronto, Ontario; <sup>4</sup>*Canadian Mining Journal*, Gardenvale, Quebec; <sup>5</sup>Canadian Institute of Mining and Metallurgy, Drummond Building, Montreal, Quebec; <sup>6</sup>*Engineering and Mining Journal*, New York, U.S.A.

### PART III.—SEISMOLOGY IN CANADA.

An article on Seismology in Canada, by Ernest A. Hodgson, M.A., appeared at p. 37 of the Canada Year Book, 1931.

### PART IV.—THE FLORA OF CANADA.

Under the above heading the Canada Year Book, 1922-23, contained an article prepared by the late J. M. Macoun, C.M.G., F.L.S., and M. O. Malte, Ph.D., and revised by the latter. See p. 25 of the 1922-23 edition or p. 73 of the 1921 edition.

### PART V.—FAUNAS OF CANADA.

The Canada Year Book, 1922-23, contained an article under the above heading by P. A. Taverner, of the Department of Mines, Ottawa. See p. 32 of the 1922-23 edition or p. 82 of the 1921 edition.

### PART VI.—THE NATURAL RESOURCES OF CANADA.

The economic life of new countries must at first depend entirely, and later mainly, upon their natural resources. Older countries, after exhausting their most easily obtained resources, turn for a livelihood to manufacturing and similar pursuits, conserving their remaining resources and utilizing those of less developed areas as far as practicable.