

tation, and crude mining and milling methods militated against continuous and profitable operations.

The boom in the Lake of the Woods and other western districts, flickered and died. The eastern gold mines operated sporadically, until, in 1906, most of the mines were idle and only 3,926 ounces of bullion were obtained from eight working properties, situated in Northwestern Ontario and the Sudbury and North Shore districts.

There are now, however, indications of a revival of gold-mining. Development is active in and around the Wabigoon district in the North West, the gold-arsenic veins of Hastings are being worked once more, and Larder Lake 34 miles north of the head of Lake Temiskaming, is showing on one property at least, unexpectedly rich ore.

### LEAD.

Deposits of galena, all of which are silver-bearing, have been opened up in many parts of Ontario. Many years ago a smelter was in operation at Kingston, using the ore from the Frontenac mine. A small smelter also was built and worked at the Ramsay lead mine, near Carleton Place, County of Lanark, but with no degree of success.

Of late years the Stanley Smelting Company took over and worked the Hollandia mine in Hastings County, and the Frontenac mine mentioned above, and produced some thousands of tons of pig lead. Financial trouble has stopped the enterprise.

Lead-smelting, however, could and should be carried on profitably in Ontario. Heretofore, the economic importance of the position of the smelter in relation to its supplies of ore, etc., has hardly been given due consideration.

### ZINC.

Although several payable deposits of zinc blende have been discovered, on only two or three have much work been done. At the Richardson (or Olden) mine a concentrating plant was built and ore has there been mined and treated for several years.

### SILVER.

The history of silver-mining in Ontario is worthy of several volumes. The spectacular discoveries of silver at Silver Islet, Northern Lake Superior, in 1868, and the equally sensational Cobalt discoveries in 1903-4, attracted world-wide attention. We shall glance hurriedly over the salient points of both districts.

**Lake Superior Silver Mining.**—The Port Arthur district, extending roughly from Thunder Cape and Silver Islet to Whitefish Lake, is composed largely of black shales, cherts, and dolomites resting unconformably on the Huronian, and capped in large areas by great overflows of trap. Numerous veins occur, cutting the various series of rocks and sometimes crossing intrusive vertical dikes. The vein matter is usually made up of calcite, quartz, fluorspar, heavy spar, and brecciated wall-rock. The metallic minerals found are iron pyrites,