order to separate the finely divided lead and zinc ores. From the opening of the zinc refinery in 1916 regular shipments of zinc ore were made from the Sullivan and other mines, but it was not until four years later that the problem of concentration was satisfactorily solved by the application of oil flotation methods. Since that time the production of lead, zinc and silver has rapidly increased. Recent enlargements to the plant at Trail have enabled further increases in production to be made.

Years.	Quantity.1	Value.	Average price per pound.	Years.	Quantity.1	Value.	Average price per pound.
1911	1b. 1,877,479 4,283,760 5,640,195 7,246,063 9,771,651 23,364,760 29,668,764 35,083,175 32,194,707	318,558 377,737 1,292,789 2,991,623 2,640,817	6.943 5.648 5.213 13.230 12.804 8.901 8.159	1920	1b. 39,863,912 53,089,356 56,290,000 60,416,240 98,909,077 109,268,511 149,938,105 165,495,525 184,647,374	\$ 3,057,961 2,471,310 3,217,536 3,991,701 6,274,791 8,328,446 11,110,413 10,250,793 10,143,050	5.716 6.607 6.344 •7.622 7.410 6.194

17.-Production of Zinc in Canada, calendar years 1911-1929.

## Subsection 8.—Iron.<sup>1</sup>

The fact that iron ore is widely distributed in Canada has long been known, and extensive deposits have been discovered from time to time. The development of the iron-mining industry, however, has been retarded by the abundant supply of the higher-grade ores of Wabana, Newfoundland, and of the Mesabi range of the State of Minnesota. The production of pig iron and of steel ingots and castings in 1928 was larger than in any other year except the war years.

Nova Scotia.—The Wabana section of Newfoundland, containing the largest single deposit of iron ore in the world, is operated by the British Empire Steel Corporation. The probable reserves in that area have been estimated at 3,635,000,000 tons, and the Wabana ore consists of an exceptionally high-grade hematite. Ore to the amount of 690,316 tons was shipped in 1928 to the blast-furnaces of the company at Sydney, where the proximity of the adjacent coalfield favours the economical production of pig iron and steel. Development work carried on also at Torbrook, in Annapolis Co., indicates that the deposits there are very extensive; the ore is red hematite, containing a good percentage of iron rather high in phosphorus. An important iron ore field is the Arisaig district in Antigonish Co.

New Brunswick.—The most important deposits so far discovered are those in the Austin Brook district of Bathurst Co., where mining experts state that great masses of iron ore have been located.

Quebec.—It is estimated that there are many millions of tons of iron magnetite sands, containing a high percentage of iron, along the north shore of the St. Lawrence at Moisie, Mingan, Natashkwan and other places in Saguenay Co. The sands contain a high percentage of titanium, rendering the briquetted iron sands unfavourable for blast-furnace treatment. There are a number of deposits of bog iron ore in the St. Lawrence valley, remarkably free from sulphur and phosphorus. The bog iron ores were successfully used in charcoal blast-furnaces at Radnor Forges and

<sup>&</sup>lt;sup>1</sup>Estimated smelter recoveries, including for years 1916 to 1929 the actual zinc recovered at Trail, B.C. <sup>2</sup>Preliminary figures.

<sup>&</sup>lt;sup>1</sup>A sketch of the iron and steel industry of Canada was given on pp. 452-456 of the 1922-1923 Year Book.