

attention to solving the problem of recovering the values in the complex lead-zinc ores of the famous Sullivan mine. This was largely a problem of concentration in 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.

#### 17.—Production of Zinc in Canada, calendar years 1911-1928.

Years.	Quantity. <sup>1</sup>	Value.	Average price per pound.	Years.	Quantity. <sup>1</sup>	Value.	Average price per pound.
	lb.	\$	cts.		lb.	\$	cts.
1911.....	1,877,479	108,105	5-758	1920.....	39,363,912	3,057,961	7-671
1912.....	4,283,760	297,421	6-943	1921.....	53,089,356	2,471,310	4-655
1913.....	5,640,195	318,558	5-643	1922.....	56,290,000	3,217,536	5-716
1914.....	7,246,063	377,737	5-213	1923.....	60,416,240	3,991,701	6-607
1915.....	9,771,651	1,292,739	13-230	1924.....	98,909,077	6,274,791	6-344
1916.....	23,364,760	2,991,623	12-804	1925.....	109,268,511	8,328,446	7-622
1917.....	29,668,764	2,640,817	8-901	1926.....	149,938,105	11,110,413	7-410
1918.....	35,083,175	2,862,436	8-159	1927.....	165,495,525	10,250,793	6-194
1919.....	32,194,707	2,362,443	7-338	1928 <sup>2</sup> .....	188,511,850	10,250,589	5-493

<sup>1</sup> Estimated smelter recoveries, including for years 1916 to 1928 the actual zinc recovered at Trail, B.C.  
<sup>2</sup> Preliminary figures.

#### 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 480,757 tons was shipped in 1927 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

<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.