

### Subsection 3.—Production of Metallic Minerals

The metals of chief importance in Canada are copper, gold, iron, lead, nickel, those of the platinum group, silver and zinc. These metals are dealt with individually in the following paragraphs. In addition, there are a number of metals produced in minor quantities, principally as by-products in the treatment of metalliferous ores (see Tables 3 and 7).

**Copper.**—About one-half of Canada's copper comes from the nickel-copper mines in the Sudbury district of Ontario. At Copper Cliff the International Nickel Company of Canada, Limited, produces converter copper which is further treated in the Company's refinery at that point, and at Falconbridge the Falconbridge Nickel Mines, Limited, produces nickel-copper matte which is exported to Norway for refining. Output of copper in this area in 1948 was 118,795 tons, including blister copper and the recoverable copper contained in matte or other products. In 1947 the corresponding output figure was 113,930 tons.

Mines in northern Quebec in 1948 accounted for 20 p.c. of Canada's copper production. These ores are treated at the Noranda smelter to produce copper anodes which are shipped to the Canadian Copper Refiners, Limited, at Montreal East for refining. Production of copper by operators in this district amounted to 48,331 tons in 1948 compared with 42,561 tons in 1947. Noranda, Normetal, Waite-Amulet and Amulet Dufault were the principal producing mines. The East Sullivan mill came into production in December, 1948, and construction work at the Quemont was then well advanced.

The Flin Flon-Sherritt Gordon area in northern Manitoba, and extending over the border into Saskatchewan, produced 50,882 tons of copper in 1948 compared with 48,467 tons in the previous year. Ores from the Flin Flon mine of Hudson Bay Mining and Smelting Company, Limited, and from the Sherritt-Gordon Mines, Limited, at Sherritton are treated at the Flin Flon smelter, and the blister copper which is recovered is shipped to Montreal East for refining. The Cuprus Mines commenced shipments to the Flin Flon smelter in October, 1948.

Mines in British Columbia, which account annually for about 9 p.c. of Canada's copper, produced 21,855 tons in 1948 as against 20,900 tons in 1947. The Britannia Mining and Smelting Company, Limited, and the Granby Consolidated Mining, Smelting and Power, Limited, were the major producers, with smaller contributions being made by Hedley Mascot, Kelowna and Vananda. Concentrates from these mines were exported to the United States. The Consolidated Mining and Smelting Company of Canada, Limited, exported some copper-bearing matte to the United States in 1948.

While the total tonnage of copper production in 1948 was greater than in 1947, it was lower than in any of the years from 1937 to 1944 inclusive. The record output was in 1940 at 327,797 tons. The 1948 value of output at \$107,000,000 was, of course, the greatest on record. World prices for copper were the highest since 1918, the yearly average for New York quotations, expressed in Canadian funds, being 22.35 cents compared with 20.39 cents in 1947. During the war years when record tonnages were produced, the controlled prices were from 10 to 12 cents per lb.

Output of refined copper amounted to 219,000 tons in 1948 compared with 202,500 tons in 1947. Consumption of the refined metal in Canada totalled 107,000 tons, and exports amounted to 116,169 tons. Shipments to the United Kingdom aggregated 63,494 tons for the year and to the United States 18,086 tons.