

exploited for their copper contents alone; not until 1886 was the presence of nickel determined and the true value of the ores made known. The nickel-copper ores of the Sudbury area are the source of nearly all the copper produced in Ontario. The ores contain from 1 to 2.5 p.c. of copper, the recovery averaging a little over 1.5 p.c. The International Nickel Co., Ltd., has a smelting plant at Copper Cliff and a refinery at Port Colborne. The mining properties include the Creighton, the Crean Hill and the No. 2 mine at Copper Cliff. The smelter of the Mond Nickel Co. is at Coniston, and the copper-nickel matte is exported to their refinery at Swansea, Wales.

**British Columbia.**—The production of copper in the province during 1927 amounted to 91,685,843 lb., which was 64 p.c. of the total Canadian production for the year. This total included the blister copper produced at Anyox by the Granby Consolidated Mining, Smelting and Power Co. Ltd., the blister copper and copper in copper sulphate made by the Consolidated Mining and Smelting Co., Ltd., at Trail, and the copper estimated as recoverable from the ores and concentrates exported. The principal copper producing mines in British Columbia are the Britannia mine on Howe sound, which ships its concentrates to Tacoma, the Hidden Creek mine on Portland canal, and the Allenby Copper Corporation, owned and operated by the Granby Consolidated. The Hidden Creek ores are smelted at the Anyox smelter and the Allenby concentrates are shipped to the Trail smelter.

**Manitoba.**—Much development has been carried on in the Flin Flon district of Manitoba in the last ten years. The Mining Corporation of Canada, after securing a controlling interest in the Flin Flon group, has carried on extensive development work by sinking and cross-cutting, verifying the results of previous diamond-drilling and proving large tonnages of ore to be in place. A branch extension of the Hudson Bay railway and the construction of smelter works are required for the economic treatment of the copper ores of the district. This property has been sold to the Whitney interests of New York, who are going ahead with the development, and in a few years Manitoba will take its place among the copper-producing provinces. It is proposed to erect a concentrator and smelter on the property, which in turn will mean the construction of 87 miles of railway and a large hydraulic development.

**Quebec.**—Until 1894, when Ontario took the lead, Quebec was the chief copper-producing province of Canada, the principal mines being the Eustis and Huntingdon properties in the Eastern Townships. These mines produced ores from which both copper and sulphur were recovered. There is still a small annual production from this field. However, recent discoveries in the Rouyn camp of northwestern Quebec indicate a greatly increased production of copper in the near future. These deposits lie in an easterly extension of the formations found in the Kirkland Lake area of Ontario. The first discoveries in the district were located as gold prospects; the existence of large bodies of copper and zinc ores was subsequently proved and the production of copper will probably exceed in value that of gold. A branch line from the Canadian National railway was completed into the camp during 1926 and during 1927 the construction of a copper smelter at the Noranda mine was completed. Hydro-electric power is supplied from power plants on the Quinze river. In the autumn of 1927, the Nipissing Central connected its line from Cheminis on the Ontario-Quebec boundary with Rouyn.

**World's Production of Copper.**—The world's production of copper was estimated at 1,628,000 short tons in 1926, as compared with 1,586,683 tons in the preceding year. Canada had an output of 66,547 tons in 1926, producing about 4.1 p.c. of the world's estimated total.