associated with an easterly extension of formations similar to those of the Kirkland Lake area in Ontario. The first discoveries were located as gold prospects; the existence of large bodies of copper and zinc ores was subsequently proved and there is now a large production of copper as well as of gold. Since 1931 the Canadian Copper Refineries, Ltd., have treated blister copper in their electrolytic refinery located at Montreal East. This material comes from the Noranda smelter and the smelter at Flin Flon, Manitoba. Gold, silver, selenium and tellurium are also products of the Montreal refinery.

Ontario.—The Sudbury deposits were first noted in 1856 but did not attract attention until 1883-84, during the construction of the C.P.R., when a railway cutting was made through the small hill on which the Murray mine was afterwards located. During the first years the deposits were developed for their copper content alone; not until 1887 was the presence of nickel determined and the true value of the ores known. These nickel-copper ores of the Sudbury area are the source of nearly all the copper produced in Ontario. Under the International Nickel Co. of Canada, an amalgamation of the former International Nickel Co. and the Mond Nickel Co., an extensive program of expansion in the mining and metallurgical facilities of the district has been carried out. A subsidiary company, the Ontario Refining Co., Ltd., operates a copper refinery at Copper Cliff where electrolytically refined copper, precious metals, selenium and tellurium are produced from the blister copper smelted by the International Nickel Co., chiefly from ores from their own mines in the district. The company also operates the Acton precious metals refinery situated near London, England, where it recovers, in a refined state, the gold, silver and platinum metals contained in the concentrates produced at both the Swansea and Port Colborne nickel refineries. The Falconbridge Nickel Mines, operating a mine in Falconbridge township, make a copper-nickel matte which is shipped to Norway for refining. Adverse industrial conditions led to reductions in the copper production of Ontario in 1931 and 1932. There was, however, a remarkable recovery in production during 1933 and a continued expansion in 1934.

Manitoba.—During the four years 1917-20, when high prices prevailed for copper, ores containing 9,866,328 lb. of copper were shipped by the Mandy mine. Much development has been carried on in the Flin Flon district of Manitoba in the last ten years, and large bodies of ore have been proven on the Flin Flon property of the Hudson Bay Mining and Smelting Co. and the Sherritt-Gordon property. About 135 miles of branch line from the Hudson Bay Railway provide these properties with transportation facilities. A copper smelter and electrolytic zinc plant are operated by the Hudson Bay Mining and Smelting Co. at Flin Flon, while a large hydraulic development on the Churchill river provides the necessary power. Production from the plants of this company has been continuous since 1930.

British Columbia.—Until 1930, British Columbia had been the leading copper producer among the provinces for many years, but it then gave first place to Ontario and since 1930 production has steadily declined, largely owing to the closing of the Copper Mountain mine and the curtailed operations at Britannia as a result of the low price of copper. The production of the province since 1930 has consisted of the blister copper produced at Anyox by the Granby Consolidated Mining, Smelting and Power Co., Ltd., and the copper estimated as recoverable from the ores, matte and concentrates exported. The principal copper-producing mines in British Columbia at present are the Britannia mine on Howe sound, and the Hidden Creek and Bonanza mines on Portland canal. The Hidden Creek and Bonanza ores are smelted at the Anyox smelter.