

out. The Froid and Froid Extension mines, where large masses of immensely rich ore have been opened up, were brought under one control. The ore supplies are chiefly drawn from the Froid, Creighton, Levack and Garson mines. Copper-nickel matte is produced at Coniston and in a large new smelter at Copper Cliff. Much of this matte goes to the nickel refinery at Port Colborne, the remainder being shipped either to the refinery at Swansea, Wales, or to the works at Huntington, West Virginia, where monel metal is made. A subsidiary company, the Ontario Refining Co. Ltd., has completed a copper refinery at Sudbury where refined copper is produced from the blister copper which is separated from the nickel at Port Colborne. The company also operates the Acton precious metals refinery situated near London, Eng., 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.

Manitoba.—During the four years 1917-20, with high prices prevailing 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 have been built at Flin Flon, while a large hydraulic development on the Churchill river provides the necessary power. During 1931 the Hudson Bay Mining and Smelting Co. continued to mine and treat copper-zinc-gold ores, producing electrolytic zinc and blister copper, the latter being shipped to the Canadian Copper Refiners, Ltd., Montreal, for the recovery of precious metals and production of electrolytic copper. At the Sherritt-Gordon mine the production of copper concentrates began in March, 1931. These concentrates are smelted at the Flin Flon smelter and the resulting blister copper is refined at Copper Cliff by the Ontario Refining Co. in their new electrolytic refinery.

British Columbia.—Until 1930, British Columbia had been the leading copper producer among the provinces for many years, but in that year it yielded first place to Ontario and in 1931 production further declined, 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 in recent years has consisted of 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 and the Hidden Creek mine on Portland canal. The Copper Mountain mine which was operated by the Granby Consolidated is now closed down. The Hidden Creek ores are smelted at the Anyox smelter, the resulting blister copper being shipped to American or Canadian refineries.