

Nickel at Falconbridge for smelting. Nickel Mining and Smelting is milling at a rate of 500 tons daily and its bulk nickel-copper concentrates are trucked to Lac du Bonnet, Man., and then rail-shipped to Copper Cliff for smelting.

In Manitoba, production of the Thompson property of International Nickel, which experienced its first full year of production, plus that of Sherritt Gordon Mines, Limited totalled 62,099 tons. Manitoba now accounts for approximately 26 p.c. of Canadian nickel production. Sherritt Gordon's Fort Saskatchewan refinery near Edmonton, Alta., continued to treat Lynn Lake concentrates and to purchase concentrates from North Rankin, N.W.T. At the Lynn Lake mine of Sherritt Gordon, the Farley shaft is to be deepened to reach expected ore in the block of ground below the present working levels. At the Fort Saskatchewan refinery, construction work was completed on the urea plant and on the addition to the ammonia plant. North Rankin closed in October when minable grade ore was exhausted; the mining and milling plants were dismantled and the townsite sold.

Giant Nickel Mines Limited in British Columbia, a wholly-owned subsidiary of Giant Mascot Mines, Limited, completed its expansion to 1,200 tons daily. Concentrates are exported to Japan.

Copper.—Mine production of copper in Canada in 1962 reached a record high of 458,590 tons valued at \$283,133,249, a tonnage increase of 4.4 p.c. and a value increase of \$27,975,623 over 1961. Reductions in Ontario, Manitoba and Saskatchewan were more than offset by increased production in Newfoundland, New Brunswick, Quebec and British Columbia. Across Canada three mines were closed, eight mines started production and seven were under development. Exploration parties were active in all copper-producing provinces and in the territories.

Six smelters for the reduction of copper and copper-nickel ores and concentrates are operated in Canada. In the Sudbury district of Ontario, International Nickel operates smelters at Copper Cliff and Coniston, and Falconbridge Nickel Mines produces copper-nickel matte at its Falconbridge smelter. Hudson Bay Mining and Smelting Co., Limited at Flin Flon, Man., smelts concentrates from its mines in Manitoba and Saskatchewan and, since September 1960, has smelted copper concentrates from Sherritt Gordon's Lynn Lake mine. Ores and concentrates from most of the copper mines in Ontario, Quebec and Newfoundland are smelted at the Noranda smelter of Noranda Mines, Limited and the Murdochville smelter of Gaspé Copper Mines, Limited, both in Quebec. Copper refineries are operated by International Nickel at Copper Cliff, Ont., and Canadian Copper Refiners Limited at Montreal East, Que. Production of refined copper in 1962 totalled about 383,000 tons.

Production from the three copper-producing mines in Newfoundland in 1962 totalled 18,342 tons valued at \$11,372,350. In the Burlington Peninsula area two copper properties were being explored by diamond drilling and underground development.

New Brunswick rejoined the ranks of copper-producing provinces in January 1962 when ore was shipped from the Wedge mine of The Consolidated Mining and Smelting Company of Canada Limited to the mill of Heath Steele Mines Limited; 750 tons of ore a day were trucked to the mill over a ten-mile road that was built under the federal-provincial roads-to-resources program. Heath Steele continued exploration and development of its zinc-copper orebody some 35 miles north of Newcastle. Near Bathurst, Brunswick Mining and Smelting Corporation Limited started rehabilitation of the mine plant and construction of a 3,000-ton-a-day mill at its No. 12 mine. The Canadian National Railways will construct a 15-mile branch line from Nepisiguit Junction to the property and production at 3,000 tons a day will start early in 1964. Concentrates from this operation will be shipped to Belgium from Dalhousie. New Brunswick's copper production in 1962 totalled 6,629 tons valued at \$4,109,856.

There were 18 copper-producing mines in Quebec in 1962 with a combined output of 151,390 tons of copper valued at \$93,861,854. Production cuts of 5 p.c. were maintained