Nickel.—About 90 p.c. of the world's nickel comes from the Sudbury area in northern Ontario. There are two large operators in this district, International Nickel Company of Canada Limited which has a smelter at Copper Cliff and a nickel refinery at Port Colborne, Ont., and Falconbridge Nickel Mines Limited which operates a smelter at the mine site but exports the matte to Norway for refining. Some nickel was recovered in the form of oxides and salts from cobalt ores treated at the Deloro smelter of Deloro Smelting and Refining Company.

Output of nickel in all forms in 1952 was 140,000 tons compared with 138,000 tons in 1951, including refined nickel, nickel in oxide and the recoverable nickel in matte shipped for export. The 1952 figure was close to the record of 144,000 tons produced in 1943. Because of the exchange situation, the average price for refined nickel at 55 cents per lb., Canadian funds, was slightly lower than for 1951 so that the output value of \$150,900,000 was slightly below the 1951 total.

Exports of refined nickel in 1952 totalled 77,000 tons, going mostly to the United States. Shipments of nickel in matte and oxide for export amounted to 65,000 tons including 28,000 tons to the United Kingdom, 21,000 tons to the United States and 15,000 tons to Norway. Canadian consumption of refined nickel amounts to about 2,500 tons annually.

11.—Quantity and Value of Nickel Produced, 1943-52

Nore.-Figures for 1889-1910, inclusive, will be found in the 1929 Year Book, p. 368; for 1911-28 in the 1939 edition, p. 342; and for 1929-42 in the 1946 edition, p. 333.

Year	Quantity	Value	Year	Quantity	Value
	tons	\$		tons	\$
1943 1944 1945 1946 1946 1947	$144,009\\137,299\\122,565\\96,062\\118,626$	69,204,152 61,982,133 45,385,155		$131,740 \\ 128,690 \\ 123,659 \\ 137,903 \\ 140,007$	86,904,235 99,173,289 112,104,685 151,269,994 150,908,900

Metals of the Platinum Group.—This group of metals includes platinum, palladium, rhodium, ruthenium, osmium and iridium. These metals occur in the nickel-copper ore of the Sudbury district and are recovered in the tank residues from the nickel refinery at Port Colborne, Ont. The crude residues are sent to Acton, England, for refining. The large increase in the output of nickel-copper ores has made Canada the leading producer of platinum since 1934, when it displaced the U.S.S.R. The industrial uses of the platinum metals have expanded considerably in recent years, particularly in electrical and chemical equipment, in jewellery and in medical and dental appliances. Canada produced 269,900 oz. t. of platinum metals with a total value of \$18,048,182 in 1952.

## 12.-Quantity and Value of Platinum and Palladium<sup>1</sup> Produced, 1943-52

Norz.—Records of the platinum production in Canada go back to 1837 but, prior to 1921, the amounts were comparatively small and the basis of calculation was not comparable with that now used. Figures for 1921-39 will be found in the 1940 Year Bock, p. 340, and for 1940-42 in the 1951 edition, p. 513.

Year	Platinum		Palladium <sup>1</sup>		Year	Platinum		Palladium <sup>1</sup>	
	oz.t.	\$	oz. t.	\$		oz. t.	\$	oz. t.	\$
1943 1944 1945 <sup>2</sup> 1946 1947	219,713 157,523 208,234 121,771 94,570	8,458,951 6,064,635 8,017,010 7,672,791 5,582,467	126,004 42,929 458,674 117,566 110,332	5,233,068 1,960,085 18,671,074 5,162,801 4,387,740	1948 1949 1950 1951 1952	121,404 153,784 124,571 153,483 120,300	$\begin{array}{c} 10,622,850\\ 11,603,002\\ 10,255,929\\ 14,542,515\\ 10,736,775 \end{array}$	148,343 182,233 148,741 164,905 149,600	6,295,132 8,289,915 7,578,144 7,950,107 7,311,407

<sup>1</sup> Includes also iridium, rhodium, ruthenium and osmium. revision for previous years. <sup>2</sup> Figures include an accumulated