

In May 1958 Canada and the United States announced that surplus uranium stocks could be sold by mines to countries such as West Germany and Switzerland where bilateral agreements had been completed (ensuring that the uranium would be used only in peaceful projects). It is of technological interest that, during the year, uranium metal was produced for the first time in Canada by Eldorado Mining and Refining Limited.

**Platinum.**—Canada is also a leading producer of platinum metals. These occur in small amounts in the nickel-copper ores of Ontario's Sudbury district and are recovered in unrefined form from smelting and refining operations. International Nickel is the chief producer, recovering the metals at the company's refinery near London, England. Falconbridge Nickel Mines Limited, also operating nickel-copper mines near Sudbury, refines platinum metals at Kristiansand, Norway. Output of platinum in 1957 was at a postwar high of 199,565 oz.t. valued at \$17,835,124 and output of palladium, rhodium, iridium, ruthenium and osmium amounted to 216,582 oz.t. at \$7,896,209.

**Titanium.**—Canada's titanium industry is based almost entirely on the production of titanium-dioxide slag, the raw material used in the manufacture of pigments. The sole producer is Quebec Iron and Titanium Corporation, which, at Allard Lake, mined record quantities of ilmenite (an iron-titanium oxide) and, at Sorel, reached a new high in the production of slag. The company expanded its facilities considerably in 1957 but the following year was forced to curtail operations as the demand for titanium-dioxide pigments eased.

**Cobalt and Tungsten.**—Cobalt is found in the ores of the Sudbury area and is recovered by International Nickel and Falconbridge Nickel Mines Limited in the form of cobalt oxide or electrolytic cobalt. Other producers include Deloro Smelting and Refining Co. Ltd., which in 1957 processed ores from the Cobalt-Gowganda area of Ontario, and Sherritt Gordon Mines Limited, Fort Saskatchewan, Alta. Canadian production in 1957 reached a record 3,922,649 lb. valued at \$7,784,423.

Canadian production of tungsten in 1957 came from Salmo, B.C., where it was mined in the form of the oxide, scheelite. Shipments in 1957 totalled 1,921,483 lb., worth \$5,279,275, but were considerably lower in 1958 when demand for the metal slackened.

**Selenium, Molybdenum and Magnesium.**—Selenium is derived from the refining of blister copper by Canadian Copper Refiners Limited at Montreal, operating the largest selenium metal-and-salts plant in the world, and by International Nickel at Copper Cliff, Ont. Production in 1957 totalled 321,392 lb. valued at \$3,535,312.

Molybdenite Corporation of Canada Ltd., with a mine about 25 miles northwest of Val d'Or, Que., remained the sole producer of molybdenum in 1957. Shipments amounted to 783,739 lb. at \$1,166,557.

Canadian magnesium is produced by two companies from the minerals dolomite and brucite—Dominion Magnesium Limited mines a dolomitic limestone at Haley, Ont., and Magnesium Company of Canada Limited mines a brucite limestone at Wakefield, Que. Production for 1957 came to approximately 16,770,371 lb. valued at \$5,254,896.

Canada also produces small quantities of antimony, bismuth, cadmium, calcium, indium, tellurium and tin, largely as by-products in the refining of base metals.

### Subsection 2.—Industrial Minerals\*

Despite the recession in industrial activity and a number of labour strikes that affected production, the total dollar value of industrial minerals produced in Canada reached an all-time high of \$472,281,000 in 1958. Among the minerals and mineral products that reached new highs in tonnage or in value, or both, were salt, pyrite and pyrrhotite, nepheline syenite, sodium sulphate, sulphur, clay products, cement, lime, sand and gravel, and stone.

\* Prepared under the direction of Dr. Marc Boyer, Deputy Minister of the Department of Mines and Technical Surveys, by M. F. Goudge, Chief of the Industrial Minerals Division, Mines Branch.