

extensive trials have been made of processes applicable to the complex ores of the Peace River district by Premium Steel Mills Limited.

Subsection 2.—Industrial Minerals

The total value of industrial mineral production increased in 1960 to a new high of \$503,967,000. Several minerals recorded gains and new production records were established for asbestos, nepheline syenite, elemental sulphur and sodium sulphate. The highlights of a number of significant developments in this segment of the mining industry during the year are outlined below.

Asbestos.—During 1960, Canadian asbestos mines shipped a record 1,141,000 tons valued at \$119,000,000 to world markets. While Canada has long occupied the most prominent position in world asbestos, that position is being challenged by growing production in the U.S.S.R.

Chrysotile, the most widely used variety of asbestos, occurs in several places in Newfoundland, Quebec, Ontario, British Columbia and the Yukon Territory. The main centre of the industry is, however, in the Eastern Townships region of Quebec where 12 mines account for more than 90 p.c. of the nation's production. Two other mines are located elsewhere in Canada—one in northern Ontario and one in northern British Columbia. A major development in 1960 was the decision in October to prepare the Newfoundland deposit of Advocate Mines Limited for production in 1963. The decision followed an intensive exploration and testing program by Canadian Johns-Manville Company Limited, in association with Patino of Canada, Amet Corporation Incorporated, and Financière Belge de L'Asbest-Ciment S.A. The property, located at Baie Verte on the Burlington Peninsula, is a potential source of fibre for the asbestos-cement industry. Murray Mining Corporation Limited continued exploration of a deposit near Deception Bay in northern Quebec. Further diamond drilling added to the company's estimate of possible ore reserves.

Early in 1960 an important new use for short fibre became apparent. The addition of 2 or 3 p.c. of group-7 asbestos to asphalt paving mixture has been demonstrated to increase the resistance of road surfaces to loads and temperature variations, improving flexibility and resistance to cracking, especially at low temperatures. Johns-Manville Corporation, which pioneered the development, forecasts an eventual market of 500,000 tons annually for this purpose.

Construction Materials.—Continuing activity in the construction industry and in road-building in Canada in 1960 sustained the production of those mineral commodities used in construction at a level close to the peak year of 1959. The increasing market for ready-mixed concrete, precast shapes and prestressed structures is reflected in the establishment of new facilities for the preparation of these materials and in the evident trend toward improved quality and more uniformity in aggregates.

For several years after World War II, considerable cement was imported into Canada from the United States and elsewhere but growth of the Canadian industry has reversed this trend and Canada now exports cement to the United States. Expansion continued in 1960; the completion of one new plant and additions to others increased capacity of the industry by 14 p.c. to more than 8,500,000 tons. At the end of the year there were 19 cement plants in operation in all provinces except Nova Scotia and Prince Edward Island. The cement plant built by Miron and Frères Ltée at St. Michel, Montreal, and completed early in 1960 is Canada's second largest. It is a dry-process plant which uses new techniques for automatic control and contains the largest kiln of its type in the Western Hemisphere—a 550 x 15-ft. unit with an annual capacity of over 4,000,000 bbl. To keep pace with growing markets in the western provinces, the Edmonton, Alta., plant of Inland Cement Company Limited was enlarged by the addition of a 340-ft. rotary kiln, increasing its capacity by 50 p.c., and the capacity of the Regina plant of Saskatchewan Cement Company was also increased.