

coal-bearing strata and their contained coal seams. Petrographic studies of various Canadian coals are also being conducted to aid in a better understanding of the coals in relation to utilization. The Department, through the Geological Survey, maintains a laboratory at Sydney, N.S., in co-operation with the Nova Scotia Department of Mines and the Nova Scotia Research Foundation, and, through the Division of Fuels of the Mines Branch, a laboratory in Edmonton, Alta., in co-operation with the Research Council of Alberta. Both offices assist in the development of the coal industry.

Details on coal in the respective coal-producing provinces follow.

*Nova Scotia and New Brunswick.*—Nova Scotia produces high-volatile and medium-volatile bituminous coking coals in the Sydney, Cumberland and Pictou areas and some non-coking bituminous coal in the Inverness area. Production in 1955 and 1956 was somewhat lower than in 1954, amounting to 5,787,915 tons valued at \$8.817 per ton in 1956.

Many of the operations have been mechanized to reduce production costs. The Dominion Coal Company Limited plans to establish a large central cleaning plant in the Sydney area, and the Four Star Collieries Limited will also operate a cleaning plant in the Broughton area. When these plants are completed more than 80 p.c. of Nova Scotia's coal production will be benefited by modern methods of cleaning. At the Princess colliery at Sydney Mines, Old Sydney Collieries Limited completed construction of an inclined tunnel from the shaft bottom to the surface to facilitate and reduce costs of transportation of coal from the mine to the cleaning plant. The tunnel is equipped with a 42-inch-wide, 3,800-ft.-long belt conveyor with a capacity of 750 tons per hour.

New Brunswick coal output comes mainly from a single thin seam of high-volatile bituminous coal in the Minto area. Production increased from 781,271 tons in 1954 to 983,482 tons in 1956. In 1955 the first mechanical coal-cleaning plant for cleaning 2 x 0 inch slack was established in this area. As a result of its success, from a technical and marketing viewpoint, a second plant to clean 6 x  $\frac{1}{4}$  inch slack was started by another operator in 1956. These two plants will allow for the cleaning of over 34 p.c. of the output of New Brunswick. Both plants are equipped with modern mechanical and thermal drying machines.

Much of the output of the two provinces is used locally for industrial and domestic purposes. The quantity used for thermal power has increased very substantially. About 36 p.c. of the 1956 output was shipped to Central Canada for commercial, industrial and railway use.

*Saskatchewan.*—This Province produces only lignite coal from the Bienfait and Roche Perceé fields in the Souris area. Production continued to increase and in 1956 amounted to 2,302,948 tons as against 2,116,740 tons in 1954. The coal was valued at \$1.829 per ton at the mine. Approximately 52 p.c. of the production was shipped to Manitoba and about 11 p.c. to Ontario for industrial, commercial and household use. With the extensive developments in progress for the production of thermal power in Saskatchewan and Manitoba, it is expected that lignite production will increase very sharply during the next two years.

The output of briquettes, which are made from carbonized lignite and used entirely for household and commercial purposes, was reduced to 39,000 tons in 1956, a decline of 2,000 tons from 1954.

*Alberta.*—Alberta produces almost all types of coal including a relatively small but growing tonnage of semi-anthracite from the Cascade area. Coking bituminous coal ranging from high to medium volatile was produced in the Crownsnest and Mountain Park areas, although towards the end of 1956 the last operator in the Mountain Park area closed down. Lower rank bituminous non-coking coals are produced in the Lethbridge and Coalspur areas and in several other areas of the foothills. The coal in the Drumheller, Edmonton, Brooks, Camrose, Castor and Carbon areas is subbituminous and that in the Tofield, Redcliff and several other areas is on the border of subbituminous and lignite. All these lower rank coals were used mainly for household and commercial purposes but industrial use is increasing, especially in thermal power production.