

Canada is making serious effort towards the development on a large scale of her lignite and peat resources; also, towards the increased utilization of her coal fields in the east and in the west. The sum of \$400,000 has been made available to the Honorary Advisory Council for Scientific and Industrial Research of the Dominion government for the erection of a carbonized lignite briquetting plant of 30,000 tons of briquettes per annum. Of this sum, \$200,000 was voted

TABLE V.—COAL PRODUCTION AND DISTRIBUTION IN CANADA

| Coal Production in Canada (a)                                     |                    |                    |                        |
|---|--------------------|--------------------|------------------------|
| Province  | 1916<br>Short Tons | 1917<br>Short Tons | 1918 (b)<br>Short Tons |
| Nova Scotia .....   | 6,912,140          | 6,327,091          | 5,852,802              |
| New Brunswick .....   | 143,540            | 189,095            | 267,746                |
| Saskatchewan .....  | 281,300            | 355,445            | 345,310                |
| Alberta .....   | 4,559,054          | 4,736,368          | 5,941,864              |
| British Columbia .....  | 2,584,061          | 2,433,888          | 2,568,591              |
| Yukon .....   | 3,300              | 4,872              | 2,900                  |
| Total .....   | 14,483,395         | 14,046,759         | 14,979,213             |
| Distribution of Coal Produced (c)                                 |                    |                    |                        |
| Sold for consumption in<br>Canada .....                           | 10,701,530         | 10,469,468         | 11,210,628             |
| Sold for export to U.S.A.   | 1,451,075          | 1,301,881          | 1,351,179              |
| Sold for export elsewhere   | 284,513            | 301,060            | 317,135                |
| Total sales .....   | 12,437,118         | 12,072,409         | 12,878,942             |
| Used by producers in<br>making coke, steel,<br>brick, etc. ....   | 804,814            | 690,573            | 682,304                |
| Used by producers for<br>colliery operations<br>and by workmen .. | 1,241,463          | 1,283,777          | 1,417,967              |
| Total used by pro-<br>ducers .....                                | 2,046,277          | 1,974,350          | 2,100,271              |

(a) Consult "The Production of Coal and Coke in Canada," by John McLeish, B.A., Chief of the Division of Mineral Resources and Statistics, Department of Mines, Ottawa.

(b) Preliminary figures, subject to minor modification.

(c) This is merely a record of distribution by the companies operating the collieries. The figures "Used by producers making coke, steel, brick, etc.," do not represent the total amounts of coal used even in making coke by coke-oven operators.

by the Dominion government and \$100,000 each by the provinces of Manitoba and Saskatchewan. Work incident to the construction of the plant is under way. The estimated cost of the briquettes per ton at the mine, including all fixed charges amounting to 20 per cent. on the capital, is \$7.\*

#### Peat Resources of Canada

Respecting the peat bogs of Canada, Dr. Eugene Haanel, director of mines, Canada, has strongly urged the necessity of developing our peat resources, and at a recent annual meeting of the Commission of Conservation of Canada, he gave an able, forceful and serious address upon this subject which the people of Canada cannot too carefully consider. Dr. Haanel affirmed the commercial and economic practicability of peat production. Many persons who have had their interest and hope aroused in the prospects of commercial peat, feel that sufficient time has already been available for "experimenting" with peat. They feel that if essential conditions respecting the acquirement of bogs are rightly provided for, and the employment of the best processes of manufacture and handling, costs, etc., are known, the peat industry should by this time have become commercialized the same as other profitable industries. Throughout Canada there have already been discovered areas of peat bog estimated to aggregate 37,000 square miles. According to a

\*Consult "The Briquetting of Lignites," by R. A. Ross, Report No. 1, Honorary Advisory Council for Scientific and Industrial Research, Ottawa, 1918. Consult, also, "Carbonizing and Briquetting of Lignites," by W. J. Dick, Commission of Conservation, Ottawa, 1917; also by same author, "Canada's Own Coal and the Fuel Problem," in "Industrial Canada," April, 1918; also "Fuels of Western Canada and Their Efficient Utilization" (revised edition), by James White, Commission of Conservation, Ottawa, 1918.

broad estimate by Dr. Haanel, and assuming an average depth of bog of six feet, this area corresponds to over 28,000,000,000 tons of peat, having a fuel value equivalent to over 16,000,000,000 tons of good coal. Manitoba, Ontario, Quebec and New Brunswick have peat bog areas aggregating 12,000 square miles.\*

The province of Ontario has recently created a Peat Commission, which, it is stated, has two experimental plants in process of construction.

#### Petroleum Resources in Canada

Canada is known to possess great areas of rich petroleum-bearing shales and sands. Although considerable work has been performed in such areas—as in New Brunswick—nevertheless, the industry cannot really be said to be commercialized. Having in mind the success of the oil shale industry in Scotland, there appears little doubt but the cor-

TABLE VI.—COAL OUTPUT, IMPORTATION AND CONSUMPTION OF COAL IN CANADA

| West of Head of Great Lakes:              |            |            |            |
|---|------------|------------|------------|
|   | 1915       | 1916       | 1917       |
| Output B.C. ....                          | 2,208,289  | 2,783,849  | 2,676,760  |
| Output Alta., anthracite                  | 125,732    | 140,544    | 118,717    |
| Output Alta., bituminous                  | 1,626,237  | 2,335,259  | 2,206,868  |
| Output Alta., lignite ..                  | 1,682,922  | 2,172,801  | 2,537,829  |
| Output Sask., lignite ..                  | 243,125    | 294,264    | 360,623    |
| Imported from U.S.A.,<br>anthracite ..... | 298,895    | 533,846    | 514,688    |
| Imported from U.S.A.,<br>bituminous ..... | 1,423,882  | 2,550,352  | 2,825,702  |
| Total tonnage made<br>available .....     | 7,609,082  | 10,810,915 | 11,241,187 |
| Exported .....                            | 864,160    | 1,105,718  | 1,029,532  |
| Net consumption ...                       | 6,744,922  | 9,705,197  | 10,211,655 |
| East of Head of Great Lakes:              |            |            |            |
| Output Nova Scotia ...                    | 7,513,739  | 6,911,995  | 6,345,335  |
| Output New Brunswick                      | 126,923    | 143,658    | 189,668    |
| Imported from U.S.A.,<br>anthracite ..... | 3,773,135  | 4,040,368  | 4,805,000  |
| Imported from U.S.A.,<br>bituminous ..... | 7,622,449  | 10,739,478 | 14,394,122 |
| Total tonnage made<br>available .....     | 19,036,246 | 21,835,499 | 25,734,125 |
| Exported .....                            | 902,383    | 1,029,641  | 703,824    |
| Net consumption ..                        | 18,133,863 | 20,805,858 | 25,030,501 |
| Total consumption in<br>Canada .....      | 24,878,785 | 30,511,055 | 35,242,156 |

responding industry in New Brunswick, Nova Scotia and elsewhere, will ere long become extensive.

According to all indications, the year 1919 will see the greatest prospecting propaganda for oil that has occurred in Canada. Many interests—Canadian, British and United States—are arranging for prospecting parties with modern equipment and oil experts to prospect, especially in Alberta and British Columbia.

Respecting the possibility that petroleum will be discovered, particularly in the Viking area and the Peace and Athabaska valleys, "the situation may be summed up as very promising," states Mr. James White in his recent monograph on the "Fuels of Western Canada."†

He states further:—

"A small quantity of dark oil obtained in one of the wells in the Viking gas field is an encouraging indication, and oil has also been found in the Pelican Rapids gas well. Seepages of oil have been found near Waterton Lake, in

\*Consult "Peat as a Source of Fuel," by Eugene Haanel, Director Mines Branch, Ottawa, 1918.

†See note under Lignites, "Supra."

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