

HONORARY ADVISORY COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH.

Under this Sub-Committee of the Privy Council there was constituted, on November 29, 1915, an Honorary Advisory Council for Scientific and Industrial Research, composed of eleven members representing the scientific and industrial interests of Canada, under Professor A. B. Macallum, M.D., Ph.D., Sc.D., LL.D., F.R.S., as Administrative Chairman. To this Advisory Council were assigned the following duties:—

- (a) To ascertain and tabulate the various research agencies in Canada.
- (b) To note and schedule the researches and investigations.
- (c) To co-ordinate all research agencies so as to prevent overlapping.
- (d) To tabulate the technical and scientific problems that confront the present industries.
- (e) To study the unused natural resources of Canada and the by-products of all basic industries.
- (f) To increase the number of trained research men.
- (g) To stimulate the public mind in regard to the importance and utility of scientific research and its application.

The Advisory Council, in carrying on its work since its organization, has initiated various assisted researches, the results of which bid fair to be of great value to the country at large. Notable among these is the attempt to secure from the lignite of the west a fuel which will be of general use to the people of the Prairie Provinces for domestic and manufacturing purposes. For domestic fuel alone the people of Manitoba and Saskatchewan have been importing annually from Pennsylvania about half a million tons of anthracite, in payment for which about \$4,000,000 has annually been sent out of the country in recent years. After exhaustive experiments had been made, the Advisory Board succeeded in producing a retort, designed along new lines, which was found to have solved the problem of carbonization. Attention was also given to the problem of briquetting. Many kinds and combinations of binders were tried, and the Board reached the conclusion that with about 11 p.c. of binder a first-class saleable briquette can be manufactured from carbonized lignite. A commercial demonstration plant has been in process of construction at a point about half-way between the mines of the Manitoba and Saskatchewan Coal Company and the Western Dominion Colliers, and is expected to be in full operation in 1921. This plant is to have a capacity of 30,000 tons per annum, and will be of material assistance in solving the fuel problem of the Prairie Provinces.

Another most important research assisted with funds by the Advisory Council, and carried on by Professor Alfred Stansfield of McGill University, is the reduction of iron ores by gases at low