

The Bureau has been following developments relating to the production of synthetic fuels very closely and is arranging for the installation of a plant to operate at high pressures. We hope to obtain valuable data on the yields that can be expected from our Canadian resources, and at the same time to do some pioneering work of a fundamental nature.

In the case of the industrial minerals, few of the Canadian producing companies are equipped either technically or financially to do the research necessary to meet the highly competitive specifications that are becoming more rigid. In addition to its work on the beneficiation of industrial minerals the Bureau does research on the development of new products and on the improvement of existing products. It was the Bureau's work that led directly to the establishment of a rock wool industry in Canada, with a present production value well in excess of five million dollars a year. The brucite magnesite industry at Wakefield, Quebec, also owes its origin to the work of the Bureau.

In its Physical Metallurgy Research Laboratories the Bureau has several projects of major interest in hand. One of these relates to the development of light alloys, with particular reference to magnesium alloys. This is of special interest in jet propulsion development. A closely related project is the development of new high temperature alloys, the object being to produce an alloy superior to existing alloys that can be cast into blades for gas turbine jet engines. The preliminary results of this work have been promising.

Another important phase of our research is the investigation of the properties of metals at low temperatures. This brings in the whole study of welding at low temperatures. Still another is work aimed toward the simplification of steel specifications. This involves a study of the relationship between American and British standards.

The Bureau also handles all research dealing with the properties of metals in connection with the Atomic Energy project at Chalk River.

I stated at the outset that I have great faith in the future of mining. In my remarks I have indicated my reasons for this faith. They are based on the evidence of past achievements, present developments, and what appears to me to be future prospects. The industry has come a long distance since the turn of the present century when its operations were confined in the main to a few widely scattered areas. It is a leading industry in every province but one, and in the two Territories. Its growth has been rapid and the influence of this growth on the Canadian economy has increased to a corresponding degree. The fact is that, quite apart from the employment it affords and the market outlets it provides, the industry is the principal mainstay of our industrial expansion. This feature will loom much larger as the beneficial effects of developments gradually unfold in the oil fields of Alberta, in the Quebec-Labrador region, and at Allard Lake. It is becoming increasingly apparent that the industry is capable of making a much greater contribution to the national welfare in the years ahead. How much greater, will depend upon how wisely we manage our mineral estate. In this, we have acquired a great wealth of "know how" over the years, not only in the technological field but in every phase of mineral endeavour. By continuing to put it to the best possible use,