

However the recent emergence of Canada as a highly industrialized society, its entrance into multitudinous fields of production, the rapid growth of many large nationwide industries, the serving of a discriminating domestic market and the meeting of competition from abroad have had the effect of making Canadian manufacturing establishments research conscious and many of the larger ones now possess powerful research organizations. The fields covered by some of these industries are outlined in the following paragraphs.*

Aluminium Laboratories Limited.—Aluminium Laboratories Limited undertakes both fundamental and applied research. Its research laboratories are located at Arvida, Que., Kingston, Ont., and the head offices of the Company, including divisions to conduct geological exploration, general engineering and patent affairs, are at Montreal, Que. The Company also has research facilities at Banbury, England.

The laboratory at Arvida is devoted largely to research problems up to and including the production of metallic aluminium. Activities are organized in the following categories: ore dressing, pilot plant, chemical, electrometallurgical, analytical and engineering. At Kingston, the research is metallurgical in nature and its divisions include: metallurgical engineering, physics and physical metallurgy, chemical metallurgy, technical publications and a development division to bridge the gap between fundamental scientific research and commercial applications.

Ayerst, McKenna and Harrison Limited.—This industry has extensive research and development laboratories and carries on original investigations in the fields of vitamins, hormones, antibiotics, and chemotherapeutic agents. The chemical laboratories are well provided with the latest tools (ultra violet, infra red, microanalysis, etc.) required in following the synthesis of new compounds and the Company also maintains a fully equipped pharmacological laboratory where these substances are evaluated for their therapeutic effects. Studies related to antibiotics and new antibacterial agents are carried on in the microbiological division.

Canada Packers Limited.—Canada Packers maintains a large research and development laboratory where several research groups work in the various fields of interest to the Company. The Meat Group works on new products and on the improvement of methods of production. The Oil Group performs the same work in the edible oil field. The Development Group is interested in developing and improving manufacturing processes. The Analysis Research Group develops accurate, reliable and fast methods of analysis for the Company's control laboratories across the country. The Biochemical and Organic Groups concern themselves with the development of byproducts such as hormones, enzymes, and fine chemicals of pharmaceutical and industrial interest. Extensive pilot plant facilities are also available.

Canadian Industries (1954) Limited.—This establishment maintains a large and diversified Central Research Laboratory equipped to carry on research in the fields covered by the eight operating divisions of the Company. The work is concerned with improvement of present processes and pioneering investigations in fields of existing interest to the Company, utilization of Canadian raw materials and meeting the needs of basic industries in Canada. The laboratories are particularly well supplied with physical equipment for determining chemical properties and identities of materials and in the use of newer techniques of examination.

Canadian Breweries Limited.—The Research Division of this Company operates laboratories that conduct all the control, chemical and bacteriological analysis for four large brewing companies. Fundamental and development research in the field of malting and brewing is also carried on for these four companies and two additional ones. In all, fifty employees—thirteen on research, ten on bacteriology and sixteen on chemical analysis—are employed.

* Prepared by the respective companies.