

CHAPTER VIII.—SCIENTIFIC AND INDUSTRIAL RESEARCH

CONSPECTUS

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The interpretation of the symbols used in the tables throughout the Year Book will be found on p. viii of this volume.

The characteristic problems of this country, particularly its large area, its small population and its unique industrial structure, have led to a typically Canadian organization of research. Early research was, of course, related to the primary industries. Geological mapping and agricultural research were almost the only areas of activity until the beginning of the present century. In 1898 research in the field of fisheries was assigned to an independent honorary board which has continued to the present as the Fisheries Research Board. In 1916 the Federal Government set up the National Research Council; its early duties were to encourage and stimulate research in the universities through grants and scholarships and it entered active research only with the establishment of its own laboratory system in the late 1920's and early 1930's. Great expansion in scientific research took place during the War when the National Research Council assumed the responsibility for research for the three Armed Services including the development of atomic energy. At the end of the War, the Council returned to its previous activities—the promotion of research in the universities and research for secondary industry. The Defence Research Board was established in the Department of National Defence with responsibility for military research. In 1952, the Crown corporation, Atomic Energy of Canada Limited, was established to proceed with the development of atomic energy in Canada, and certain other Crown corporations such as Eldorado Mining and Refining Limited and Polymer Corporation, and Canada's largest national utility, the Canadian National Railways, developed important research programs.

Concurrently with these advances, the traditional departments of the Federal Government expanded and strengthened their research facilities—in particular, the Department of Agriculture and the departments responsible for mining, fishing, forestry and health. Medical research was long carried on in the hospitals and universities but received its first organized government support in 1938, support which increased rapidly after the War. Also, the provincial governments, with their responsibilities for education and for natural resources, contributed considerably to the support of research in the universities and seven provinces have now established or assisted financially in the establishment of research councils or foundations. Hydro-electric utilities in three provinces are provincially