

# 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 (see Chapter XXVI). 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, Polymer Corporation Limited and Canada's largest national utility, the Canadian National Railways, developed important research programs.

Industrial research has been slow to develop in Canada. While certain large industries, particularly the chemical industry and pulp and paper industry, had a long history of successful research effort, the primary resource base of other industries was not conducive to the establishment of research laboratories. Also, the prevalence of foreign-owned manufacturing companies exerted considerable influence on the development of industrial research. Canadian subsidiaries of foreign companies had ready access to the research and development results of their parent companies and Canadian companies had little incentive

\* A Selection of Canadian Achievements in Science and Technology, 1800-1964, compiled by Dr. John R. Kohr of the National Research Council, Ottawa, appears in the 1965 Canada Year Book, pp. 398-401. This is available in reprint form from the Dominion Bureau of Statistics, Ottawa.