

During the second world war, a special Minerals Projects Division of the Bureau carried on exploration and development work on strategic minerals and financed some university research in that field. In the fuel research laboratories, investigations are conducted on oils, gases and solid fuels. This includes coal analysis and classification, and studies in hydrogenation.

The Department's Bureau of Geology and Topography is responsible for the discovery of mineral resources, for studying the nature and extent of underground water resources and for ground and air mapping services. The Bureau has co-operated with the National Research Council and the Royal Canadian Air Force on problems associated with air photography for mapping purposes.

Dominion Observatories located at Ottawa, Ont., and at Victoria, B.C., carry on the usual functions of observatories and are interested in astrophysics, photogrammetry, terrestrial magnetism and earthquakes. A chain of teleseismic seismographs is maintained and short-period seismographs are utilized in connection with mine rock-burst research.

*Department of National Health and Welfare.*—The Department of National Health and Welfare is not organized primarily for research but, nevertheless, some research is carried out in the Food and Drug Laboratory and in the Laboratory of Hygiene, in addition to routine work. The Department has provided considerable funds for research in public health. There are also federal-provincial health grants for work on the prevention and treatment of crippling conditions in children, mental health, tuberculosis, the control of cancer and venereal diseases, and arthritis. To co-ordinate its medical health programs, conferences are held by representatives of the National Research Council, Defence Research Board, the National Cancer Institute, and the Public Health Research Grants Committee. These conferences provide for reasonably clear definition of the field of each organization and have prevented uneconomical overlapping.

*Department of Trade and Commerce.*—Rapid development of grain production in Western Canada led to the passing, in 1912, of the Canada Grain Act. This Act is administered by a Board of Grain Commissioners who are responsible for control of the transportation, weighing, grading and warehousing of Canadian grain. The Board soon encountered problems that required scientific study and a Grain Research Laboratory was established at Winnipeg in 1913.

The Grain Research Laboratory is the main centre of research on the chemistry of Canadian grains. It is well staffed and equipped to provide the service required to help maintain and expand domestic and foreign markets for all types of grain. Each year the Laboratory provides certain information required by the Board for administering the Canada Grain Act. The Laboratory collects and tests samples of various crops to obtain information on the current quality of all grains shipped during the crop year. Fundamental research is also undertaken; the program is directed towards increased understanding of what constitutes quality in cereal grains and towards improving the methods of assessing quality.

*Canadian Patents and Development Limited.*—Canadian Patents and Development Limited is a Crown corporation established in 1948. The primary purpose of the Company is to make available to industry, through licensing arrangements, new processes and improvements in processes developed by the scientific workers of the National Research Council. The services of the Company have also been made available to government departments and other agencies, and have been