T. & C. ASSOCIATE DEPUTY: Mr. S.D. Pierce, Canadian Ambassador to Mexico, has been transferred from the Department of External Affairs, and has been appointed Associate Deputy Minister of Trade and Commerce. He will be concerned primarily with procurement for the armed forces.

Mr. Pierce was born on March 30, 1901, at Montreal, Quebec. He graduated from McGill University with the degrees of B.A. and B.C.L., with a gold medal in economics. He was a member of the Canadian Olympic team which went to Paris in 1924.

He was a newspaper reporter on the Montreal Gazette, lectured on political science at Dalhousie University and subsequently worked with the Associated Press in New York. From 1930 until the outbreak of World War II he attended to private interests.

In 1940 Mr. Pierce joined the Department of Munitions and Supply and worked for four years in its Washington Office in various capacities. On leaving he was Director-General of the Washington office. He served as Canadian Executive Officer on the Combined Production and Resources Board (United Kingdom, United States and Canada) and as Canadian Executive Director of the Joint War Production Committee (United States and Canada).

TRADE ADVISORY COMMITTEE

Mr. Pierce was Chairman, during its existence, of Canada's External Trade Advisory Committee. He was a member of the Canadian Shipping Board, the Trade and Tariff Committee and the Crown Assets Allocation (Board) and a Director of the Canadian Commercial Corporation. He is Chairman of the Food Requirements Committee.

Mr. Pierce joined the Department of External Affairs on August 1, 1944, and served in Ottawa as Head of the Economic Division until his appointment, in March, 1947, as Ambassador to Mexico. Mr. Pierce took up his duties in Mexico in July, 1947.

He was an alternate Canadian delegate to the first meeting of the Interim Assembly of the Provisional International Civil Aviation Organization held in Montreal, May, 1946. In October, 1946, he was a delegate to the First Session of the Preparatory Committee of the United Nations Conference on Trade and Employment, held in London; he was a delegate also to the Second Session of this Committee, held in Geneva beginning April 11, 1947.

In August, 1947, Mr. Pierce was named one of the alternate Canadian delegates to the Second Session of the General Assembly of the United Nations in New York. He headed the Canadian Delegation to UNESCO Conference held in Mexico City in November, 1947.

From June 1948 until his recent return to Canada, he was in Paris on a special Mission, representing Canadian interests in matters relating to the European Recovery Plan. He also served on the Canadian Delegation to the Third Session of the General Assembly of the United Nations.

ORGANIZE AGAINST CANCER: Establishment at the federal Laboratory of Hygiene, Ottawa, of a central tumor registry to assist in the general program of the National Cancer Institute of Canada was announced on January 5 by the Miniscer of National Health and Welfare, Mr. Martin.

Providing scientific facilities for the war against cancer, the Government has approved expenditures for the creation and functioning of the registry. Staff is now being appointed, and necessary equipment and supplies are on order.

The National Cancer Institute of Canada has named Dr. Desmond Magner, Professor of Pathology at the University of Ottawa, as Registrar of the new establishment, and the Minister of National Health and Welfare is making available the services of two health officials, Dr. H.A. Ansley, Assistant Director of Health Services, and James Gibbard, B.S.A., M.Sc., Chief of the Laboratory of Hygiene, who will be associated with Dr. Magner in administering the registry.

TECHNICAL GROUP

In addition to other work in this field, the registry will assist pathologists in the classification of various cancers and other tumors and will collect case histories and other relative data for future studies. A panel of leading consultants from all across Canada has been appointed to act as a technical group for the classification of tumors.

Creation of the tumor registry is a sequel to the all-out attack launched nearly two years ago when Mr. Martin called a conference of leading scientific, medical and lay leaders to study the problem of cancer. From that meeting was born the National Cancer Institute of Canada, to carry on surveys and to mobilize science against all tumors, while working with the Canadian Cancer Society, which had already begun an intensive educational campaign in this field. Mr. Martin then arranged for the trustees of the King George V Silver Jubilee Cancer Fund to turn over a sum of $450,000 for the purposes of the new institute. The Institute and the Canadian Cancer Society have since joined forces in one organization with Dr. O.H. Warwick as Executive Director.

Tremendous impetus has been given to cancer control in Canada by the National Health program inaugurated last year by the federal Government. This program includes an annual grant of $3,500,000 to the provinces, which constitutes an important addition to the federal health program first proposed in 1945.

jewellery can be measured and controlled; what happens to the sulphur in coke used in iron blast furnace smelting operations, can be followed. Hundreds of peacetime applications exist for radioactive materials including the possible use of atomic energy for heat and power purposes.

In the pure chemistry branch, of the Division of Chemistry, work is continuing on various problems connected with the structure of alkaloids, and an investigation using radioactive tracers has been started on the synthesis of alkaloids in plants. One project employs radioactive atoms to trace the mechanisms of chemical reactions. First observations are being made using radioactive carbon in a study of some controversial aspects of the photochemical decomposition of acetone. Radioactive tracers are also being employed in investigations on the transition from the gaseous to the liquid state. A variety of physical chemistry problems are under investigation, including photochemistry, surface chemistry, spectroscopy, and calorimetry....

APPLIED CHEMISTRY BRANCH

An appreciable fraction of the work carried out in the applied chemistry branch consists of tests and service work for Government departments and industry and the development of testing procedures or analytical methods in connection with the drafting of Government specifications. The major activities of the branch, however, are concerned with many long-term research projects in the applied chemistry field, some of which may be mentioned.

A study is being made of the factors which affect corrosion rates in the high-temperature corrosion of alloy steels. It is anticipated that this investigation may lead to results of great industrial value. Work is also proceeding on the mechanism of corrosion inhibitor action. This is a problem of every-day interest; for example in the prevention of corrosion in automobile cooling systems.

Improvement of visibility through aircraft windscreens by the use of a bonded rain repellent is of great significance in flying. Flight tests up to 600 m.p.h. through all sorts of rain conditions have been carried out on the rain repellent developed last year. These tests have demonstrated the effectiveness of the repellent in maintaining visibility when flying through rain. The material is meeting general acceptance by the aircraft industry and is now being manufactured commercially.

Catalytic reactions of acetylene with aldehyde under pressure, an industrial investigation sponsored by Shawinigan Chemicals Limited, has for its object the preparation of acetylenic alcohols and glycols. Chemistry of unsaturated fatty acids is being studied in an attempt to prepare them by the dehydrogenation of saturated acids.

Further work is being done on the use of silver-calcium alloys as catalysts in the direct oxidation of ethylene to ethylene oxide. Work is also being done on the design of a reactor to provide optimum heat-transfer rates from the catalyst bed to the cooling medium. Attempts to employ the catalyst in the fluidized condition were not successful.

In collaboration with other laboratories, an attempt is being made to correlate the results of laboratory tests of natural and synthetic rubber stocks with road tests of tires containing the same stocks.

A new method for the recovery of oil from Athabasca tar sands by flash distillation in a fluidized bed of sand is meeting with considerable success in the laboratory stage. The data obtained in the course of laboratory experiments have been used to design a pilot plant on which construction has now been started.

In detergency research measurements have been made of the adsorption of soap, such as sodium stearate, and of the free fatty acids and free alkali on carbon black. Further work is being done on the adsorption of soaps on cotton.

ORGANIC COMPOUNDS

Synthesis of organic compounds containing tracer elements is proceeding. The laboratory engaged in this work has prepared on request a large number of compounds containing stable tracers such as deuterium, nitrogen 15 and carbon 13. Facilities are being provided for the preparation of organic compounds containing active tracers such as carbon 14 and iodine 125.

The newly formed Division of Building Research commenced its active work during the year....

In the field of housing research, the Division continues its co-operation with Central Mortgage and Housing Corporation; joint studies have been made of field problems such as paint deterioration and basementless houses....

The Division of Mechanical Engineering has been engaged during the past year on work in aeronautics, hydrodynamics, and certain phases of mechanical engineering. This Division serves as the research organization of the Royal Canadian Air Force and also provides the Canadian aviation industry with research, development and testing facilities. In performing this two-fold service, the icing and low-temperature operation of jet engines have been investigated and the supercooling of water and the atomization of water have been studied.

In co-operation with the Department of National Defence, the Division has studied the behaviour of fuels and lubricants at low temperatures. Related problems have been investigated in the gasoline and oil laboratory. In the wind tunnels, models of new aircraft have been tested for Canadian aircraft firms. The study of the control and stability of tailless aircraft was continued, with flight trials of the tailless glider at Namao, Alberta. In the autumn the glider was towed, via Winnipeg, Chicago and Toronto to Arnprior where trials