

*National Research Council*

The chemistry division is divided into two sections, one dealing with the more fundamental aspects and the other with chemical engineering. The work of the fundamental section contributes directly to fundamental knowledge but it also assists and stimulates the applied divisions. In chemical engineering, work is being done in the fluidized bed techniques for the recovery of oil, and this work is showing promising results.

Recent tests on military and civilian aircraft have provided further evidence of the effectiveness of a rain repellent developed in this division which maintains a clear vision through aircraft wind screens when flying through rain. The officers of the council feel that this development is extremely important, and that not enough recognition has been given to it by operating air lines.

The textile laboratory carries on large amounts of service work in connection with the Canadian research institute of laundries and cleaners and the various departments of government. Its activities cover a very wide range of projects in connection with fibres and various synthetic fabrics, protection against various agencies, the efficacy of dry cleaning, and the suitability of fabrics for one hundred and one different purposes. Work on corrosion, protective coatings, rubber, as well as innumerable demands on the analytical laboratories, all serve the interests of Canadian industry in a very effective way.

The work in the division of applied biology includes fundamental and applied investigation on food preservation and the utilization of agricultural wastes and residues; fats and oils; seaweeds; and biological statistics. During the year a great deal of work was done on a model of a railway refrigerator car which shows great promise and will probably be adopted in the near future. The prairie regional laboratory at Saskatoon is now well established and the fermentations and microbiological work in connection with the utilization of agricultural waste products is being studied there.

The division of physics is responsible for maintaining scientific standards, and every year comparisons are made with comparable standards in the United States national bureau of standards and in various European laboratories.

The new spectroscopic laboratory established in this division this year will be one of the best equipped laboratories in Canada, and the fundamental work now being turned out by the director and his staff is of a very high order. The work on acoustics, cosmic rays, heat, industrial radiology and optics occupies the time of a large percentage of

the staff, and is of invaluable assistance to industry and to other scientific laboratories.

In addition to the operation of the laboratory divisions the research council carries on a most important and extensive work of an extramural nature. The division of information services operates the national research library which is the best of its kind in Canada. This division serves not only the research staff but other scientific institutions throughout the country. This division is also responsible for the hundreds of publications which are put out each year, and it operates the technical information service which was set up with representatives located in all the provinces of Canada to give a direct field service to the smaller industries across the country. This activity is not spectacular but is, we feel, already producing results of great value to Canada.

Since its inception the council has awarded scholarships and made grants-in-aid to university professors. This year about a quarter of a million dollars will be distributed to perhaps 400 students across the dominion in the various sciences. I think few people recognize the extent of the assistance given through the research council to the research workers in the universities of Canada. This year the total sum for this purpose will amount to nearly a million dollars, and indirectly this supports many hundreds of workers in research laboratories. The returns from the money so spent are, I think, far beyond the dollar value of the grants. In addition the council runs liaison offices in London and in Washington, and carries on many other activities too numerous to mention.

I have tried merely to outline very briefly the general work of the council. The committee will find other interesting activities which I have not touched upon. I am sure that the members of the committee, and through them this House of Commons, will benefit from the more detailed examination which this committee is to make.

I have been associated with the work of the council through the war and post-war years. I have some knowledge of the remarkable contribution of the council and its staff during the war years to the winning of the war. Almost every activity on the production front benefited from the work of the national research council. I am proud of the calibre of the men and women who make up the staff of the research council. The parliamentary committee will find there the same type of able and enthusiastic young scientists and workers they met at Chalk River. The committee will gain an appreciation of the refinement and precision of modern laboratory work. I am sure that hon.