THE ONTARIO RESEARCH FOUNDATION

THE annual report of the Ontario Research Foundation for 1960 contains interesting accounts of sponsored research in its various departments*. In biochemistry, for example, work has been carried out on such projects as the tanning of leather with spruce bark from northern Ontario, the improvement of household sanitation units, the utilization of rice-hull ash, and the properties of pozzolans and other cementitious materials. Besides many existing investigations, four new industrial projects were initiated in the Chemistry Department in 1960. Work for the Reichhold Chemical Co. was started and contracts negotiated with the Brick and Tile Institute of Ontario, Toronto; L'Air Liquide, Montreal; and the National Starch and Chemical Co., Plainfield, New Jersey.

Of particular interest in this Department was work carried out under the Moore Business Forms, Ltd., Fellowship. The investigators designed and constructed instruments to measure manifolding characteristics and developed analytical methods for carbon paper coatings based on new physical methods of analysis. The instruments developed permit a study of the density and clarity of carbon copies, the formation of 'haloes' in high-speed printing, the pressure-time relationship for various impacts of type on multilayers of paper and carbon paper, and provide a visual demonstration of the clarity of carbon copies. The analytical methods permit analysis of very small specimens of carbon ink such as may be recovered from carbon copies and thus yield basic information on transfer and other properties.

In the Engineering and Metallurgy Department, service work increased by about 25 per cent and accounted for about 70 per cent of the external revenue, and more than 50 per cent of the total work load of the Department. The total number of investigations in the Ore Dressing Division increased from 45 in 1959, to 56 in 1960, 55 different clients being served. The Engineering Division provides engineering services for a number of industries, and operates the Gas Appliance Testing Laboratory for the Canadian Gas Association.

Another department, Industrial Research Services, helps industries in the Province by providing a free technical information service coupled with a field engineering service. The latter delineates technical problems and recommends means for their solution. Any industry in Ontario may use this confidential service without obligation. This work is carried out under contract for the Ontario Department of Commerce and Development and for the Technical Information Service of the National Research Council.

This Department also keeps a record of the Foundation's activities. In 1960, more than 4,300 separate contacts with manufacturing and service industries, individuals, associations and departments of Government were recorded. Nearly 1,400 investigations were carried out in the scientific laboratories of the Foundation, ranging from short-term evaluations of a special nature through minor research and development projects, field engineering studies, consultation, project management and technical surveys to major research and development fellowships. Answers to nearly 1,900 technical problems were provided by Industrial Research Services and more than 400 problems requiring laboratory work were co-ordinated by the Department either at the Foundation or in some other appropriate and competent agency.

For many years the Department of Parasitology has been building up a body of knowledge concerning the parasites occurring in fish, birds and mammals of Ontario. Thirteen scientific papers were published in 1960, an outstanding contribution from a small group which is also responsible for a teaching and research programme in parasitology at the University of Toronto.

Service work undertaken by the Department of Physics included work on back-scattering of electrons from surfaces, a test-jig for an extensometer, tests of insulation tape, and consultation regarding electronic instruments, optical measuring systems, light meters and radioactive tracers.

* Ontario Research Foundation Annual Report, 1960. Pp. 46. (Toronto: Ontario Research Foundation, 1961.)

THE COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, NEW DELHI

THE annual technical report, 1959–60, of the Council of Scientific and Industrial Research, New Delhi, covers the work of twenty national laboratories, including the National Botanic Gardens, Lucknow, and the Birla Industrial and Technological Museum, Calcutta, as well as sponsored research in progress or completed at the Rain and Cloud-Physics Research Unit of the National Physical Laboratory, New Delhi, and at the three Essential Oils Research Centres at Kanpur, Bangalore and Ootacamund*. There are also notes on the work in progress under some fifteen research committees and under fellowships, as well as on completed projects. Lists of 379 research schemes in progress in 106 centres in 1959–60, of grants-in-aid, of 306 fellowships, of 738 research papers published during the year, and of patent applications filed are appended. Besides the Central Mechanical Engineering Research Institute and the Central Indian Medicinal Plants Organization, which are still being planned, the Council has approved the establishment of a National Aeronautical Laboratory at Bangalore, a Regional Research Laboratory at Jorhat (Assam), a Central Scientific Instruments Organization and a Centre for Research, Training and Documentation in Petroleum and Natural Gas.

* Council of Scientific and Industrial Research, New Delhi. Annual Technical Report, 1959–60. Pp. iv+440. (New Delhi: Council of Scientific and Industrial Research, 1961.)