

Other companies with sizable research departments represent many diversified interests, for example: Canadian Industries Limited, International Nickel Company, Dominion Rubber Company, Imperial Oil Limited, Shawinigan Chemicals Limited, the Maple Leaf Milling Company, Canadian Breweries Limited and Canada Packers. There are, of course, many others.

To an increasing extent, recent scientific developments are leading to a reasonably swift industrial application, as shown by the establishment of such companies as Isotope Products Limited at Oakville, Ont., and Computing Devices of Canada Limited at Ottawa, Ont.

To date, however, the main bulk of industrial research continues to be done under Government auspices, and sometimes with the co-operation of universities. Two further examples of this Canadian habit of co-operation between industries and other organizations may be cited: the Research Division of the Hydro-Electric Power Commission of Ontario, a provincial service, and the Pulp and Paper Research Institute, intimately associated with McGill University. These organizations are briefly described in the following sections.

*Hydro-Electric Power Commission of Ontario.*—The Research Division of the Hydro-Electric Power Commission of Ontario receives its main impetus from the continuing expansion of power-generating facilities throughout the Province.

The Electrical Research Department deals mainly with improvements in power equipment, insulation, lightning protection, illumination and electrical metering. New uses for electricity are under investigation, mostly on experimental equipment, e.g., crop-drying apparatus, soil-heating coils under greenhouses and heat pumps.

The subjects of study in the Structural Research Department include masonry materials, soil mechanics, vibration and "galloping" of transmission lines, and the best ways to test various construction components. Since one of the most widely used materials in hydro structures is concrete, all problems relating to this material are handled by a special Concrete Control Section. The Chemical Research Department is concerned with such varied items as corrosion, liquid electrical insulants, paints, plastics, protective coatings, weed control, and even black-fly control.

*The Pulp and Paper Research Institute of Canada.*—Because so much of the Canadian economy is dependent upon pulp and paper, the need has long been recognized for research on cellulose chemistry and other technologies associated with the use of cellulose. Near the beginning of the century, the Federal Government set up a Montreal branch of the Forest Products Laboratory, which worked closely with McGill University department of chemistry, and early in the 1920's the pulp and paper industry began to support research in this branch. In 1950, the Institute became an independent corporation under federal charter; it is administered by a Board of Directors consisting of appointees from McGill, industry, and the Federal Department of Resources and Development.