The effect of radiant energy on growth.
The lateral support of steel columns and struts.
The welding of steel structures.
The effect of low temperature on steel castings.
Pressure variations in the cylinders of internal combustion engines.
The action of alkali waters on concrete.
The chemical effect of high-speed cathode rays.
Investigations of fundamental gas laws.
Researches in the field of low temperatures.
The floatability of pulpwood.

Training of Research Workers.—To give graduates of Canadian universities further specialized training in methods of scientific and industrial research, the National Research Council has established a series of postgraduate scholarships. These scholarships are of several classes, and awards are made according to the academic standing of the applicants and the extent of their experience in post-graduate research. The fact that two or three times as many applications are received as there are awards to be granted permits the Council to confine the awards to applicants with outstanding qualifications.

The Council awards three classes of scholarships tenable in Canada, of an annual value[1] of $750, $1,000 and $1,200, respectively. Foreign scholarships of a value of $1,500 and a special scholarship of $1,750 are awarded to men already holding the Ph.D. degree or its equivalent, for advanced study and research in foreign countries. The total annual expenditure on scholarships is about $50,000.

At the end of the year under review 257 persons had completed their training in science under these awards. Three hundred and three grantees have secured the degree of M.A. or M.Sc., and 152 persons that of Ph.D. One thousand one hundred and seventy-four scientific papers have already been published by these grantees.

Of the 257 persons who have completed their training under these awards 66 are on the staffs of Canadian universities, 54 are employed in the industries, 50 have accepted positions in the technical branches of the Dominion and Provincial Governments and 28 are continuing their postgraduate studies. It is gratifying to note that very few have sought employment in foreign countries.

International Affiliations.—In accordance with its established policy of avoiding duplication of effort and of keeping in close touch with research centres elsewhere, especially within the Empire, the Council has taken out sustaining memberships in several British research organizations and is thereby kept fully informed of their activities. These include the Wool Industries Research Association, the British Leather Manufacturers' Research Association and the Linen Industry Research Association. In addition, the Council supports the International Mathematical Union, the International Chemical Union, the International Union of Pure and Applied Physics, the International Committee on the Annual Table of Constants and the Association of Special Libraries and Information Bureaux, and receives such advantages as may be derived from these memberships.

Subsection 2.—The Ontario Research Foundation.

The Ontario Research Foundation was established by Acts of the Provincial Legislature passed in 1928 and 1929 (18 Geo. 5, c. 57, and 19 Geo. 5, c. 86). The objects of the Foundation are as follows:—

[1]For the year 1932-33 these scholarships are being reduced to $600, $750 and $1,000, respectively.