

McGill University's Appeal For Increased Endowments

Some Reasons Why It Should Meet With A Generous Response.

INSTITUTION A CREDIT TO CANADA.

Every University has three great functions to perform if it is to fulfill its proper duty in a community. These are:—

(a) The Dissemination of Knowledge (in Teaching).

(b) The Preservation of Knowledge (in Libraries and Museums).

(c) The Advancement of Knowledge (by Research and Discovery).

The last mentioned task, that of adding and increasing the fund of human knowledge, is, in many ways, the highest function that a really great university can perform, for the world can advance only by having at its command an ever increasing field of knowledge which is power and which makes for progress.

For the opening up of new fields of knowledge, we are dependent chiefly on the universities of the world. In this great work, McGill University has occupied a foremost place among the universities of the Dominion. From the days of Sir William Dawson to the present time, there have always been members of the staff engaged in important scientific researches at McGill, and a continuous series of papers setting forth the discoveries made in these researches have been issued from the University. A general reference only can here be made to a few of these investigations.

Researches in Physics.

The Department of Physics at McGill University from the time of its foundation, has attracted the attention of the whole scientific world through a series of brilliant researches carried on in the Macdonald Physics Building by a succession of distinguished men of science who have occupied the Professorships in this department—researches which have advanced our whole knowledge and conception of the constitution of matter and the laws of the Universe.

Of these men Professor (now Sir Ernest) Rutherford is worthy of a foremost place. His investigations in the field of Radioactivity were of a character so striking and so far reaching, that they opened up a new world of scientific knowledge, and at the completion of nine years of continuous work at McGill University, and having refused in succession the appointment of the headship of the Department of Physics of nine of the foremost universities of the United States, he was called to the head of the Department of Physics in the University of Manchester as a stepping

stone to the Professorship of Physics in the University of Cambridge, which he now holds and which is recognized as the leading professorship in this department of science in the English speaking world. He attracted to McGill a band of younger men whom he associated with him in his work, and many of whom have since achieved marked distinction, among whom may be mentioned Dr. Soddy, now at the University of Oxford, Professor Eve, now head of the Department of Physics at McGill University, who rendered such excellent service during the war in the invention of methods for submarine detection, and Professor Louis Vessot King of the same department, whose recent work on Fog Signalling in the Gold of St. Lawrence has attracted such widespread attention, also Professor Boyle, now at the University of Alberta, Professor McClung, now at the University of Manitoba, and many others who flocked to the laboratories of McGill Universities, not only from the United States and Britain, but from Germany and other parts of the Continent of Europe, to study with him.

Men of Marked Distinction.

Other men of marked distinction have carried out researches in this Department at McGill in other lines of work. Professor Calendar, in the accurate measurement of high temperatures, Professor Barnes on the properties of ice and the conditions preventing its formation, researches which have had a very direct and practical bearing on the many Canadian problems. The names of Professor Cox and of Dr. (now President) Tory should also here be mentioned, as well as those of Dr. A. N. Shaw, Dr. J. A. Gray, whose excellent work in sounding ranging during the war is well known, and other younger men in the McGill Department of Physics now engaged in research work of importance and who promise to carry on in a worthy manner the traditions of old McGill.

In the Department of Electrical Engineering, which in many ways is related to the Department of Physics, the researches of Professors Herdt and Dalemont, as well as those of Brig.-General Andrew MacNaughton and Mr. E. Bieler may be mentioned.

The extended researches of Dr. T. Sterry Hunt and Dr. B. J. Harrington into the mineral resources of Canada first drew attention to the Chemical Laboratories of McGill University, and since their time there has issued from these laboratories a continuous series of contributions to chemical science. Dr. Rutan and his staff of twenty-one chemists, including many able young investigators, are now engaged, in addition to their teaching

duties, in carrying out researches on various recondite problems, a chemical science which is the foundation stone of great fields of modern industry.

Foremost in Natural Sciences.

In the Natural Sciences, McGill has also occupied a foremost place in the world of research. Professors Penhallow and Lloyd in Botany, Professor Arthur Willey, F.R.S., and Dr. Stafford in Zoology, have made most important contributions to the knowledge of their respective sciences. In Geology, the work of Sir William Dawson covered many fields and is well known to all, that of Dr. Frank D. Adams, his successor, in the Logan Chair of Geology, on the ancient crystalline rocks of Canada, on the problems of metamorphism, the origin of ore deposits, and more recently on the elasticity of rocks, (with Dr. Bancroft), and their deformation and flow under great pressures, has thrown light upon many fundamental questions concerning the earth and its past history, and has received widespread recognition on both continents.

Prominent in Engineering.

In various branches of Engineering, McGill has also made important original contributions to the fundamental principles of the respective sciences. Among these may be mentioned the researches of Professor Nicholson into the conditions which obtain within the cylinders of a steam engine when in operation, the work of Professors Porter and Durley on Canadian coals and the most efficient methods of their utilization, that of Dr. Coker, now Professor of Mechanical Engineering in University College, London, on action of metals under stress, and that of Professors Mackay and Brown and Mr. Batho, on the deformation of bridge members under stress, may be especially mentioned.

The work of Dr. Stansfield on the Electric Furnace and its adaptation to industrial needs is well known.

Faculty of Medicine.

In the Faculty of Medicine the name of Sir William Osler stands out pre-eminent among the many men who have made important contributions to the great science and are of healing at McGill. His name, in fact, occupies a foremost place among the great physicians of the world, and his great text-book of Medicine is a classic wherever medicine is taught.

In the newly established Faculty of Agriculture, important researches have been carried out by Principal Harrison and members of the staff at Macdonald College, an institution which, in the future, even more than in the past, will follow along lines of agricultural research and investigation looking to the solution of many of the pressing problems with which Canadian agriculture is now faced.

In addition, to its labors in research and teaching, the staff of McGill University have contributed to the development of the Dominion of Canada itself by their services on many Government Commissions and Boards, such as the Commission of Conservation, the Council for Scientific and Industrial Research, Civil Service Commission, various War Boards, etc.

It is hoped that the appeal which McGill University is now making to the public for increased endowments will meet with a generous response, thus enabling the Governors of the University to provide the means necessary for the continuation of the excellent work which McGill has been doing and which redounds in a large measure to the credit of the whole Dominion.

N. B. TELEPHONE INCREASES CAPITAL.

Permission has been granted the New Brunswick Telephone Company by the New Brunswick Public Utilities Commission to increase the capital stock by \$400,000.

This amount is to reimburse the company for money borrowed for plant extension. This brings total authorized capital of the company up to \$2,322,620.

Supporting the application O. J. Fraser, general superintendent, in evidence, explained that the application was based on plant extensions and additional supplies obtained and paid for by money borrowed for the purpose.

B. C. BOND ISSUE.

A bond issue of \$1,000,000 by the Province of British Columbia was sold at Victoria to a syndicate of British Columbia and Seattle bond houses. The bonds are for three years and bear 6 per cent. The tenders were in Canadian funds, the highest being on a basis of 5.15 per cent.

The bonds will, however, be sold in the United States and it is understood that the price to investors will be on a 7.35 per cent. yield. This favorable transaction was thought by local bond dealers to reflect an improvement in the American bond market, as the province of Ontario issues was sold on a 7.25 basis early in the present month, and Ontario naturally has a higher standing than the younger provinces in the financial field.

The tenders received for the issue were as follows, so far as learned in local bond circles: Carsten and Earles, Seattle National Bank, Gillespie, Hart and Todd, Royal Financial Corporation and British America Bond Corporation, 103.351 (awarded); Wells Dickey and Co., Minnesota Trust Co., 103.306; Wood Gundy and Co., 101.24; A. E. Ames and Co. and Halsey Stuart and Co., 102.50; R. C. Matthews and Co., Paine Webber and Co., and A. B. Leach and Co., 102.29.