

REPORT OF THE COMMITTEE OF MANAGEMENT OF
THE MACDONALD PHYSICS BUILDING.

TO THE CORPORATION OF MCGILL UNIVERSITY,

GENTLEMEN,—The most important change in the staff has been the appointment of Mr. E. Rutherford, M.A., to succeed Professor H. L. Callendar, F.R.S., who was called to the Chair of Physics at University College, London. Professor Rutherford came to Canada with an excellent record of important original work. He has taken up the teaching with great energy and success while continuing his investigations. The senior demonstrator, Mr. F. Pitcher, has received an important appointment, and Mr. H. T. Barnes has been awarded a Joule Studentship by the Royal Society of London. The Committee regret the loss of the services of these gentlemen, though they observe with satisfaction such proofs of the appreciation in which men trained in the University are held. Mr. Pitcher's work will be taken by Mr. R. O. King, and two additional demonstrators have been appointed:—R. K. McClung, B.A., and I. W. Fraser, B.Sc.

The introduction of Physics into the curriculum of the First Year in Arts, and its transference from the Second to the First Year in Applied Science, have largely increased the numbers of students working in the Physics Building this year.

During the year a sum of nearly \$2,000 has been spent in new machines for the workshops and fittings for the Building in addition to much apparatus which has been constructed by the Mechanic.

The Lecture Theatre continues to be much used by other departments of the University, and by visiting Societies.

The number of research students is increasing. Results of their work have been communicated to the Royal Society of Canada, the British Association, the Philosophical Magazine and other leading scientific serials.

Some of the researches concluded during the past year, or now in progress, are as follows:—

On the variation of the specific heat of water and of Mercury, by Professor H. L. Callendar, M.A., F.R.S., and H. T. Barnes, M.Sc.

On the Density of Solutions—H. T. Barnes, M.Sc.

On Frazil Ice—H. T. Barnes, M.Sc. (Royal Society of Canada).

A new method of determining the Conductivity of Metals—R. O. King and — Duncan.

Absolute determination of the E. M. F. of the Clark Cell—R. O. King.

The Damping of Electrical Oscillations—H. Brookes.

The Distribution of Currents in the cross-section of conductors—Professor E. Rutherford, M.A., and I. W. Fraser, B.Sc.

On Thorium Radiation—Professor E. Rutherford and R. B. Owens (Royal Society of Canada).

On Thorium Radiation—Professor R. B. Owens (Philosophical Magazine).

Radiations from Uranium, Polonium and Radium—Prof. E. Rutherford.