

PROCEEDINGS
OF THE
Nova Scotian Institute of Science

SESSION OF 1924-1925

(VOL. XVI. PART 3)

63RD ANNUAL BUSINESS MEETING

*Physiological Lecture Room, Dalhousie College, Halifax,
12th November, 1924*

THE PRESIDENT, PROF. C. B. NICKERSON, in the chair.

Other members present: Dr. J. H. L. Johnstone, D. J. Matheson, Prof. D. S. McIntosh, Dr. A. H. MacKay, Dr. S. G. Ritchie, Dr. H. L. Bronson, Prof. H. S. King, P. R. Colpitt, E. W. Todd, Prof. W. P. Copp, Dr. D. McIntosh, Prof. J. N. Gowanloch and H. Piers.

The President, in his opening remarks, gave brief sketches of the lives of three members who had died during the year, namely, Donald M. Fergusson, a former president of the Institute, Dr. F. W. Dobson, and Dr. Frank W. Ryan, the last of whom had been a member of council. He also reviewed the activities of the society during the past session. The full address is appended to the Proceedings at page XVIII.

The Treasurer's report was presented by D. J. MATHESON, showing the receipts for the year were \$2,274.58; the expenditures, \$1,596.93; balance in hand (in current account), \$677.65; and the balance at credit of reserve fund, \$151.09; while the permanent endowment fund is \$1,500.00. The report was received and adopted.

The Librarian's report was presented by MR. PIERS, showing that 1,253 books and pamphlets had been received through the exchange-list in 1923; and 1,087 have been received during the nine months, Jan. to Sept., 1924. The total number of books

and pamphlets received by the entire Provincial Science Library (with which that of the Institute is incorporated) during 1923, was 1,428. The total number in the Science Library on 31st Dec., 1923, was 68,592. Of these, 50,844 (about 74%) belong to the Institute, and 17,748 to the Science Library proper. 101 books were borrowed in 1923, besides those consulted in the library. No binding or purchasing has been done, there being no money grant available for that purpose since 1907. The report was received and adopted.

The Corresponding Secretary, PROF. McINTOSH, reported on his work during the year; as well as did DR. MACKAY on progress in publishing the Transactions.

It was decided that the popular lectures be continued during the present session.

It was reported that DR. A. C. JOST, Halifax, had been elected an ordinary member on 30th June.

On motion of MR. PIERS and DR. BRONSON, the Council was recommended to elect as a corresponding member, DR. DAVID FRASER HARRIS, The Aggons, Dane Hill, Sussex, Eng., a former president of the society.

The Recording Secretary was directed to send letters of condolence to the families of deceased members, D. M. FERGUSON, DR. F. W. DOBSON and DR. F. W. RYAN, of whose deaths this Institute learns with deep regret.

Officers for the ensuing year (1924-25) were elected as follows:—

President—STEPHEN GALWAY RITCHIE, B. A., D. M. D.,
ex officio F. R. M. S.

First Vice-President—PROF. J. H. L. JOHNSTONE, PH. D.,
M. B. E.

Second Vice-President—PROF. A. G. NICHOLLS, M. D.,
D. Sc., F. R. S. C.

Treasurer—D. J. MATHESON, B. Sc.

Corresponding Secretary—PROF. D. S. MCINTOSH, M. Sc.
Recording Secretary and Librarian—HARRY PIERS.

Councillors without Office—A. H. MACKAY, LL. D., F. R. S. C.; PROF. H. P. BELL, M. Sc.; PROF. H. S. KING; PROF. J. CAMERON, M. D., D. Sc., F. R. S. C. & E. C. C. FORWARD; PROF. D. MCINTOSH, PH. D., and PROF. C. B. NICKERSON, M. A.

Auditors—P. R. COLPITT and PROF. W. P. COPP.

On motion a vote of thanks was presented to the retiring President, PROF. NICKERSON, for the able manner in which he had filled the chair during his term of office.

FIRST ORDINARY MEETING

*Physiological Lecture Room, Dalhousie College, Halifax,
 8th December, 1924.*

The President, DR. RITCHIE in the chair.

It was reported that DR. DAVID FRASER HARRIS had been elected a corresponding member on 2nd December.

PROF. HAROLD S. KING, Dalhousie University, read a paper on "The Action of Aqueous Ammonia on Mercurous Chloride." The subject was discussed by PROF. NICKERSON, MR. TODD, DR. D. MCINTOSH, DR. RITCHIE and DR. BRONSON.

FIRST POPULAR LECTURE

*Physics Lecture Room, Dalhousie College, Studley, Halifax,
 26th January, 1925.*

The President, DR. RITCHIE, in the chair.

PROF. H. L. BRONSON, PH. D., delivered a lecture, illustrated by experimental demonstrations, entitled "Elementary Discussion of Waves and Radiant Energy," it being the first of a series of four popular addresses on Radio Telephony arranged for the session. The subject was discussed by DR. MACKAY, P. R. COLPITT, PROF. COPP and the PRESIDENT.

SECOND ORDINARY MEETING

*Physiological Lecture Room, Dalhousie College, Halifax,
16th February, 1925.*

The President, DR. RITCHIE, in the chair.

On motion of MR. PIERS and PROF. McINTOSH, it was resolved that the Institute learns with very deep regret of the death of its corresponding member, PROF. LORING W. BAILEY, PH. D., LL. D., F. R. S. C., which took place at Fredericton, N. B., on 10th January; and of its associate member, DR. ELIAS NICHOLAS PAYZANT, M. D., at Wolfville, N. S., on 22nd of the same month; and desires to express to the members of their families its sympathy in their bereavement.

No paper was read.

SECOND POPULAR LECTURE

*Physics Lecture Room, Dalhousie College, Studley, Halifax,
23rd February, 1925.*

The President, DR. RITCHIE, in the chair.

PROF. J. H. L. JOHNSTONE, PH. D., of Dalhousie University, delivered the second of the series of lectures on Radio Telephony, the subject being "The Production, Transmission and Detection of Wireless Waves." The lecture was illustrated by experiments and lantern slides.

THIRD POPULAR LECTURE

*Physics Lecture Room, Dalhousie College, Studley, Halifax,
30th March, 1925.*

The President, DR. RITCHIE, in the chair.

ARTHUR WILLARD GREIG, A. R. R. L., delivered the third lecture on Radio Telephony, his subject being "Short Wave Transmission." The lecture was illustrated by experiments, including a demonstration of the method of measuring short radio waves.

FOURTH POPULAR LECTURE

*Physics Lecture Room, Dalhousie College, Studley, Halifax,
27th April, 1925.*

The President, DR. RITCHIE, in the chair.

T. W. MURRAY, A. R. R. L., superintendent of the Halifax Radio Station, delivered the concluding lecture of the series on Radio Telephony, the subject being "Transatlantic Reception and Dispersal of News Traffic."

THIRD ORDINARY MEETING

*Physiological Lecture Room, Dalhousie College, Halifax,
11th May, 1925.*

The President, DR. RITCHIE, in the chair.

It was reported that the following gentlemen had been elected ordinary members on 26th February: PROF. O. S. GIBBS, PROF. E. GORDON YOUNG, PROF. BORIS BABKIN and N. B. DREYER, all of Dalhousie College; MAJOR WILLIAM COATES BORRETT, of Dartmouth, and ARTHUR WILLIARD GREIG and GEORGE A. SANDOZ, of Halifax.

A committee on popular lectures was appointed, consisting of DR. NICHOLLS, PROF. YOUNG and PROF. BELL, with power to add to the number, in order that it might arrange and carry out a series of popular lectures on biological subjects for next year's session.

The following papers were read by title:—

"On the Action of Potassium Hydroxide on Aromatic Aldehydes," by KEITH HUESTIS BUTLER.

"Observations on the Physiology of *Gyrodactylus*, a parasite of fish," by PROF. J. N. GOWANLOCH.

"Intertidal Behaviour of *Buccinum undatum*," by PROF. GOWANLOCH.

HARRY PIERS,
Recording secretary.

ANNUAL PRESIDENTIAL ADDRESS

PROF. C. B. NICKERSON, M. A.

(12 Nov., 1924)

Fellow Members of the Institute, Ladies and Gentlemen:—

The item of business on the agenda card which calls for "Opening Remarks by the President," should properly mark, I think, the close of the Institute year for 1923-24. Before entering upon our new session, with its new officers, new plans, etc., I can perhaps best utilize the very few minutes which I have allotted to myself in briefly reviewing the work of the past year.

That review must unfortunately, include the mention of the loss by death of three of our members.

MR. DONALD MACEachern FERGUSSON, F. C. S., was born in the island of Colonsay, Scotland, in 1869, but spent the greater part of his childhood and youth in Greenock, receiving his training as a chemist in the laboratory of Messrs. MacGowan & Biggart, public analysts. He came to Halifax, Nova Scotia, in March, 1890, as chief chemist for the Acadia Sugar Refining Co., which position he held until October, 1920. He resigned then as he was not in good health and took the easier position as assistant in the Government laboratory in Halifax, where he stayed for five months, after which he and his family went to Vancouver, British Columbia. He was elected a member of the Nova Scotian Institute of Science on the 5th of January, 1909. Later he became a life member and was president from November, 1912 to October, 1915. During 1903 and 1904 he was a special student in biology at Dalhousie and was for some years an enthusiastic member of the Journal Club formed by the late Professor Eben. MacKay among chemists in Halifax and Dartmouth. He was well known in musical circles in Halifax and Dartmouth, where he played the double-bass in the Philharmonic Orchestra and was for about fifteen years choir-master of St. James's Presbyterian Church, Dartmouth. It was hoped the change to Vancouver would improve his health, but he gradually failed and died, April 15, 1924.

Mr. Fergusson although for many years engaged in the routine work of an industrial laboratory, never allowed himself to fall into the rut to which work of that kind is so apt to lead. On the contrary, by every means within his power, he kept his scientific interests sharpened and whenever recent advances in chemistry and physics were discussed at our meetings here or in the Journal Club at Dalhousie, we could always depend on Mr. Fergusson to take an active part.

A pleasing personality combined with a bright sense of humor made him a delightful friend, and I am sure that the members of the Institute who knew him, must feel in his death a keen sense of personal loss.

During the late summer, the Institute again suffered a loss in the death of F. W. DOBSON, D. D. S., who joined as an ordinary member in March 1922. Dr. Dobson being a recent member, had not entered into any of the activities of the society, but his expressed interest in scientific work, and in the welfare of Nova Scotia, would undoubtedly have led him to do so had he lived. I had only a slight acquaintance with Dr. Dobson and I am therefore unable to speak more intimately of his life and work outside of the Institute.

In the sudden and unexpected death of FRANK W. RYAN, D. D. S., on the 17th of October, the Institute also lost a valued friend and member. Dr. Ryan was born in New Brunswick in 1860, and since 1900 he had been a well-known dentist in this city. He became interested in the Nova Scotian Institute of Science and joined as an ordinary member in Nov. 1919, and at our last annual meeting was elected a member of the Council. Dr. Ryan at the time of his death was Dean of the Dental Faculty of Dalhousie University, and also Professor of Operative and Dental Surgery. No sketch of DR. RYAN's life and work could be adequate which did not recall his personality. Always genial and sympathetic, his work both as an educator and a member of the Institute's council, will make his name to be long remembered by the members of this society.

During the past year, 6 original papers were read before the Institute. These papers are all now, I believe, in the process of being published. For a number of years, the society has been much behind-hand in this matter of publication and I happen to know that this delay has prevented us from getting several important papers. This is unfortunate, but we cannot blame those who wish the account of an original work to appear at the earliest possible date, since credit for priority in such matters is reckoned from the actual date of publication. We understand of course, that increased costs during the war and after, have necessarily made the publication problem a difficult one for us. I am glad to say, however, that at present our printing is much more nearly up to date than it has been for seven or eight years.

For several winters past as you know, the Institute has been conducting a series of so-called Popular Lectures. The original intention in holding these lectures was, I believe, first, to attempt to attract those people to our meetings who have a general interest in scientific subjects, but who are not sufficiently familiar with the details of any one subject to benefit by attending our regular meetings. Another reason was, and I should perhaps say this in confidence, to advertise the Institute of Science. I think that most of us will admit that these lectures have done something, at least, toward the accomplishment of both purposes. The results have been rather discouraging at times but I am quite certain that the general interest in these lectures is on the increase. There is, of course, much to be done in the matter of working out a more satisfactory scheme for advertising the lectures, arrangements of a program, etc., and these are problems which should be discussed and disposed of at this meeting.

In closing, I wish to thank the members of this society and in particular, the members of the Institute's council for their help and co-operation in carrying on my work as President for the past two years.