

PROCEEDINGS

OF THE

Newa Scotian Institute of Science

SESSION OF 1922-1923
VOL. XVI. PART I.

61ST ANNUAL SESSION
ANNUAL BUSINESS MEETING

Physiological Lecture Room, Dalhousie College, Halifax
20th November, 1922.

THE PRESIDENT, DR. JOHN CAMERON, in the chair.

Other members present: Prof. C. B. Nickerson, D. J. Matheson, Prof. D. S. McIntosh, Dr. A. H. MacKay, Prof. D. Fraser Harris, Dr. S. G. Ritchie, Prof. J. A. Dawson, E. W. Todd, Prof. W. P. Copp, Prof. H. P. Bell, Dr. A. R. Cunningham, H. E. Read, and H. Piers.

The President made some remarks on the papers which had been presented during the last session. A noteworthy feature had been the course of popular lectures; while there had been but few original papers, the preparation of which is the chief aim of the Society.

The Recording Secretary referred to the death of two members during the year: Dr. Frank Woodbury had passed away on 3rd February, and a minute of regret at his decease was passed on 13th February. The Rev. Edward Henry Ball, D.C.L., a member of the Institute since 1871, had died at Chester, N. S., on 11th April, 1922, and the Secretary gave a brief sketch of his life and of his study of our provincial flora a number of years ago.

The Treasurer, D. J. MATHESON, presented his annual report, dated 17th November, showing that the receipts were \$1,974.16; the expenditures, \$875.70; balance on hand (in current account), \$1,098.46; and the balance at credit of reserve fund, \$138.41; while the permanent endowment fund is \$1,500. It was pointed out that there is chargeable against the balance, the cost of printing the Transactions, vol. 15, part 2, and subsequent parts 3 and 4. The report was received and adopted.

The Librarian's report was presented by MR. PIERS, showing that 1,077 books and pamphlets had been received during the year 1921. The total number of books and pamphlets received by the Provincial Science Library, with which that of this Institute is incorporated, during 1921, was 1,407. The total number in the Science Library on 31st December, 1921, was 65,457. Of these, 48,125 belong to the Institute, and 17,332 to the Science Library proper. 117 books were borrowed in 1921, besides those consulted in the library. No binding or purchasing has been done by the library directly, there being no money grant at its disposal since 1907. The report was received and adopted.

Officers for the ensuing year (1922-23), were elected as follows:

President,—PROF. CARLETON BELL NICKERSON, M. A., *ex officio* F. R. M. S.

First Vice-President,—PROF. JOHN HAMILTON LANE JOHNSTONE, M.Sc., Ph.D., M.B.E.

Second Vice-President,—STEPHEN GALWAY RITCHIE, B. A., D. M. D.

Treasurer,—DONALD J. MATHESON, B. Sc.

Corresponding Secretary,—PROF. DONALD SUTHERLAND MCINTOSH, M. Sc.

Recording Secretary and Librarian,—HARRY PIERS.

Councillors without office,—ALEXANDER HOWARD MACKAY, LL. D., F. R. S. C.; PROF. DAVID FRASER HARRIS,

M. D., D. Sc., F. R. SS. E. AND C.; E. CHESLEY ALLEN; PROF. JAMES ARTHUR DAWSON, Ph. D.; PROF. ALBERT G. NICHOLLS, M. D., D. Sc., F. R. S. C.; PROF. HUGH PHILIP BELL, M. Sc.; and JOHN STANLEY BAGNALL, D. D. S.

A committee on popular lectures was appointed as follows: DR. HARRIS, DR. CAMERON, and DR. RITCHIE.

The chair was taken by the new President, who thanked the Institute for the honour done him.

A vote of thanks was presented to the retiring president 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 January, 1923.*

THE PRESIDENT, PROF. NICKERSON, in the chair.

It was reported that at the council meeting of 1st November, CHARLES E. W. DODWELL, C. E., of Halifax, had been elected an ordinary member, and LLOYD A. MUNRO, M. A., of Montreal, an associate member; and at the council meeting of 30th November, the following were elected ordinary members: PROF. W. G. HARDY, B. Sc., PROF. H. S. KING, MRS. H. S. KING, and H. L. SCAMMELL, all of Halifax.

PROF. HUGH P. BELL, M. Sc., Dalhousie University, read a paper on "The Rusts of the Balsam Fir," illustrated by lantern slides. The subject was discussed by the PRESIDENT, DR. A. H. MACKAY, and others.

THE PRESIDENT read a paper by LLOYD A. MUNRO, M. A., of Montreal, on "A Study of Molybdenum Blue." The paper was discussed by DR. MACKAY, and others.

HARRY PIERS read a paper on the "Accidental Occurrence in Nova Scotia of the Rock Ptarmigan (*Lagopus rupestris*

welchi or *L. ruspestris rupestris*); with remarks on the status of *L. welchi* as a specific name." The subject was discussed by DR. MACKAY, DR. CAMERON, and DR. DAWSON.

THE PRESIDENT announced that arrangements had been made for a course of popular lectures during the session.

FIRST POPULAR LECTURE

*Chemistry Lecture Room, Dalhousie College, Halifax,
29th January, 1923.*

THE PRESIDENT, PROF. NICKERSON, in the chair, and many members and their friends in attendance.

PROF. WALTER P. COPP, B. Sc., Dalhousie University, delivered an interesting popular lecture on "The Quebec Bridge," illustrated by lantern slides.

SECOND POPULAR LECTURE

*Physiological Lecture Room, Dalhousie College, Halifax,
26th February, 1923.*

THE PRESIDENT, PROF. NICKERSON, in the chair, and about fifty persons present.

It was announced that A. C. McLATCHY, Halifax, had been elected an ordinary member on 2nd February.

PROF. JOHN CAMERON, M. D., D. Sc., F. R. SS. E. & C., Dalhousie University, delivered an interesting popular lecture on "Races that Dwell above the Clouds," with lantern illustrations. He dealt with the inhabitants of Tibet, Bhutan, and ancient Peru.

THIRD POPULAR LECTURE

*Chemical Lecture Room, Dalhousie College, Halifax,
28th March, 1923.*

THE PRESIDENT, PROF. NICKERSON, in the chair.

PROF. DONALD S. McINTOSH, M. Sc., of Dalhousie Univer-

sity, delivered an instructive popular lecture on "Weather in the Belt of Cyclonic Storms," illustrated by lantern slides.

SECOND ORDINARY MEETING

*Physiological Lecture Room, Dalhousie College, Halifax,
16th April, 1923.*

THE PRESIDENT, PROF. NICKERSON, in the chair.

THE PRESIDENT read a paper on "A Modification of the Procedure for the Qualitative Separation of the Metals of the Alkaline Earth Group."

A paper by PROF. T. L. WALKER, PH. D., Director of the Royal Ontario Museum of Mineralogy, Toronto, on "The Nature of Louisite," was read by MR. PIERS, in the absence of the author. The subject was discussed by PROF. D. S. MCINTOSH, PROF. H. S. KING, E. W. TODD, H. PIERS, PROF. NICKERSON, DR. JOHNSTONE, and D. J. MATHESON.

FOURTH POPULAR LECTURE

*Physiological Lecture Room, Dalhousie College, Halifax,
30th April, 1923.*

THE PRESIDENT, PROF. NICKERSON, in the chair, and about thirty persons present.

PROF. J. A. DAWSON, PH. D., Dalhousie University, delivered an interesting popular lecture on "In-Breeding and Out-Breeding," illustrated by lantern slides. The subject was discussed by the PRESIDENT, DR. MACKAY, DR. BRONSON, DR. CAMERON, DR. CUNNINGHAM, DR. JOHNSTONE, and H. H. BLOIS.

FIFTH POPULAR LECTURE

*Physiological Lecture Room, Dalhousie College, Halifax,
16th May, 1923.*

THE PRESIDENT, PROF. NICKERSON, in the chair, and about fifty persons present.

DR. J. CAMERON, was appointed delegate to represent the Institute at the Meeting of the ROYAL SOCIETY OF CANADA.

It was reported that Prof. W. F. McKNIGHT, N. S. Technical College, Halifax, had been elected an ordinary member on 4th May.

PROF. D. FRASER HARRIS, M. D., D. Sc., F. R. SS. E. & C., delivered an interesting and instructive popular lecture on "What Seeing Means," illustrated by lantern slides. The audience then adjourned to the physiological laboratory where preparations of parts of the eye were shown under the microscope.

THIRD ORDINARY MEETING

*Physiological Lecture Room, Dalhousie College, Halifax,
21st May, 1923.*

THE PRESIDENT, PROF. NICKERSON, in the chair.

The Following papers were then read:

(1.) A Procedure for the Qualitative Analysis of the group Magnesium, Potassium, and Sodium, by PROF. HAROLD S. KING, Dalhousie University. Discussed by the PRESIDENT, DR. JOHNSTONE, MR. TODD, and MR. PIERS.

(2.) The Electrical Conductivity of Calcite. By W. J. JACKSON, M. A., Dalhousie University. Discussed by DR. JOHNSTONE, the PRESIDENT, and MR. TODD.

(3.) A Scheelite (Tungsten-bearing) Deposit recently discovered at Lower Sackville, Halifax County. By HARRY PIERS. Discussed by DR. JOHNSTONE, MR. TODD, and F. W. DIXON.

(4.) Phenological Observations, Nova Scotia, 1922. By A. H. MacKAY, LL. D., F. R. S. C., Superintendent of Education.

HARRY PIERS,
Recording Secretary.