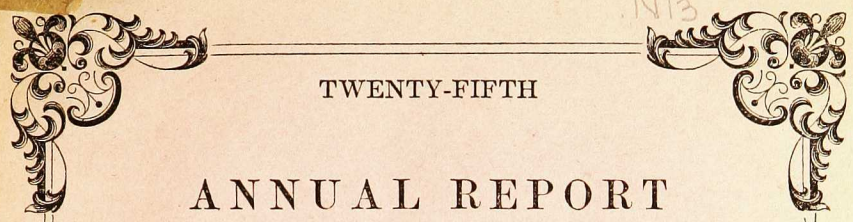


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TWENTY-FIFTH

ANNUAL REPORT

OF THE

NATURAL HISTORY SOCIETY

OF

MONTREAL,

DELIVERED BY THE LATE COUNCIL,

AND

READ AT THE MEETING OF THE SOCIETY,

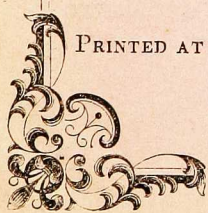
30TH MAY, 1853.



MONTREAL:

PRINTED AT THE SUN OFFICE, 20 ST. FRANCOIS XAVIER STREET,
By MOORE, OWLER & STEVENSON.

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R E P O R T, & c .

TO THE NATURAL HISTORY SOCIETY OF MONTREAL,—

The period of your Annual Meeting having arrived, it becomes the duty of the Council to lay before you a *resume* of the past year's proceedings, which they are happy to regard as having been characterized by so much more than ordinary interest, as to give rise to the anticipation that ere long this Society will resume the proud position of a leading Scientific Institution of Canada—in a literary sense,—as well as from having been the pioneer in this country of the development of its Natural history.

The measure of assuming the occupancy of the whole of this mansion, the property of the Corporation, for its own purposes, has been carried out ; and the Society may congratulate itself upon the entire success of this step, notwithstanding the anxiety and doubt of many of the Members upon the discussion thereof.

The building has been repaired, and in a manner renovated, and the hall entrance altered and greatly improved. The principal story is devoted to the business purposes of the Society—a Hall of Lecture, Library and Reading Room, and Committee Room, and apartments for the Assistant Curator.

The two upper stories are now devoted entirely to the purposes of the Museum ; and, from the increased amount of the property of the Society, are by no means too capacious. The arrangement of this portion of the Society's property, as far as it has been accomplished, reflects the highest credit upon the Cabinet Keeper, Dr. Gibb, who carried out the same, involving, as it did, a considerable amount of time and labor.

In referring to the transactions of the past year, your Council experience some difficulty in selecting those of the most interest ; but they would be wanting in due regard to the general feelings of the Society, were they to refrain from asking especial attention to the very valuable services of our President, Major R. Lachlan, who succeeded to the chair in October last, conse-

quent on the removal from the city of its former occupant, Dr. Sewell. Your President has been indefatigable in his endeavors to resuscitate the Society; his personal labors in connection therewith have been unremitting, and the value thereof is fully substantiated by, among other advantages, the greatly increased subscription list, the success of the first *soiree*, held on the evening of 12th April last, and the prospect of a volume of Transactions being published ere long. The Council are quite convinced that the Society will fully recognize and acknowledge the merits of its Chief, who has contributed so much in reinvigorating the character of its proceedings, and giving an impetus thereto, which, it is sincerely hoped, no untoward circumstances may arise to arrest or retard. Unanimity and energy on the part of our Members must contribute as well to their own advantage as to that of the Society. The Council have, therefore, to regret that unexpected circumstances should have prevented the proposal, also introduced by the President, of imparting to the Anniversary of the Society a more attractive character than a mere meeting for the election of office-bearers, by associating with it a Special Literary Soiree on that evening—a decision upon which stands recorded in the proceedings of the Society, so as to be carried out the next year with, the Council trust, effective *eclat*.

The annexed Reports of the Librarian and Cabinet Keeper will exhibit the state of the Library and Museum. The donations to both during the past year have been very numerous and valuable, as the detailed recorded lists fully show; but the particulars of which are omitted, in order to avoid too extended a Report. The Council, however, trust it will not be considered invidious in making special reference to the extensive donations of Dr. Gibb, one of our members, consisting as they do of above 300 specimens in various departments of Natural History and comparative Anatomy, and an equally large collection of miscellaneous and rare articles, from all quarters of the Globe, and of which a detailed list has been furnished by the donor,—making altogether, a most important addition to the Collection of the Society, and demanding from it, in the opinion of the Council, a more direct mark of consideration, especially when coupled with the fact of the valuable services rendered to the Society by the donor, who is now about leaving this country, to take up his abode in the United Kingdom.

The Council have also much pleasure in calling attention to the unwearied exertions of the Recording Secretary, Mr. Dutton, in the discharge of the, of late, greatly increased laborious duties of his office.

The separate statements of the Treasurer, with the Report of the Finance Committee, exhibit a full detail of our resources, which are so far satisfactory as exhibiting the Society in possession of real estate, books, and objects of Natural History, to the value of at least four thousand pounds, with current liabilities not one tenth of that amount;* but the property of the Society necessitating considerable annual outlay, although not producing any returns, and the Annual Subscription having of late years been reduced to the very low rate of ten shillings per annum, affords an income altogether too limited to meet the reasonable current expenses of the Society, and far less to admit of effectually carrying out the objects of its Incorporation, or of taking the steps necessary for the dissemination of scientific knowledge, so highly important to the good of our country in the progressive age in which we live. Seeing this, and trusting that the Government would regard our embarrassed state with patriotic liberality, your Council last year, addressed urgent petitions to the three branches of the Legislature, praying for *emergent* aid, in addition to the annual small sum of fifty pounds hitherto granted; but in this they have as yet been much disappointed, after having been led to indulge confident anticipations of a favorable result, from the circumstances of the members of the Canadian Institute of Toronto having been allotted a sum of two hundred and fifty pounds, and the Athenæum of the same city a sum of one hundred pounds. It would therefore unfortunately appear that our society is less worthy in the eyes of the Administration, than some of its western brethren, or many of the various Educational Institutions in our own section of the Province. It is further to be deplored, that this utter want of funds has for some years past precluded the purchase of a number of works highly requisite for the Library, as likewise the offering of medals for Prize Essays. The Council are, however, happy to state that the number of volumes in the Library is now upwards of 1500; but regret to add that 150 still continue missing.

The Council beg to refer to the elaborate alphabetical list of the members of the Society, whether honorary, corresponding or ordinary, from the foundation of the Society to the present time, which has been prepared and presented by L. A. Latour, Esq., and for which (as well as other general useful services always cheerfully rendered) that gentleman is entitled to its warmest thanks, the framing of which having necessitated considerable labor and research.

* The liabilities of the Society, besides fulfilling the terms of the Summerville legacy, amount to £275 balance due on mortgage, and about £100 outstading miscellaneous debts, or about £375 in all.

By the above list it appears that the Society has altogether on its roll the names of 490 members, of whom about 100 have died, and that at present they consist of:—The Earl of Elgin, Governor General, Patron; 37 honorary members; 129 corresponding members; and 129 ordinary members.

The Lectures delivered during this Session, have been as follows:—

1. 2nd February. The Introductory Lecture, by the President. Subject:—The beneficial influence of Scientific Associations and popular lectures on a country; and the encouragement which they ought to receive from the Public.

2. 9th February. By Dr. Sutherland. Subject:—Water.

3. 16th February. By J. C. Baker, Esq. Subject:—On Colonization; the ancient and modern systems.

4. 23rd February. By Dr. D. C. McCallum. Subject:—The mutual relations of forces; physical, vital, and psychical.

5. 2d March. By Thos. M'Ginn, Esq. Subject:—Atmospheric Influence and the Aurora Borealis.

6. 9th March. By Auguste Delisle, Esq. Subject:—Botany; its history, utility, and attractions. 1st Lecture.

7. 16th March. By Joseph Dutton, Esq. Subject:—The Fine Arts; their origin, object, utility, principles, manipulations, and present circumstances and prospects.

8. 30th March. By Auguste Delisle, Esq. Subject:—Botany. 2d Lecture.

9. 6th April.—By the Rev. W. Hutchinson. Subject:—Physical Geography.

In addition to which a paper, on the delusive expectations of finding Coal in Canada, was read by the President, at the Soirée on the 12th ult.

The Council have to congratulate the Society upon increased interest having been shown towards these Lectures, as evinced by the more numerous attendance thereon; and the gentlemen who thus so ably assisted the Society, are deserving of its warmest thanks. But there is one event requiring particular remark, from being now first introduced into this Society, namely the Soirées, (already alluded to). This step, after much consideration, was finally resolved on, and its success, under

all circumstances, was fully equal to the most sanguine anticipations, in the number and respectability of the attendants, and in the lively interest evinced in the subject matter of the evening.

There is no doubt, whatever, therefore, that similar *reunions* would be of the utmost advantage to the well-being of the Society, as tending to bring together its members in a social circle, and admitting of the general discussion of subjects, in a manner requiring much less time than the preparation of an Essay or Lecture, whilst it at the same time affords an opportunity of general participation. A very moderate expense would certainly render these literary reunions highly attractive ; and it therefore becomes a question for the consideration of the members, seeing the very limited means of the Society, how far they may deem it desirable to contribute specially towards such an object, independent of the annual funds of the Society. In view of these circumstances, the Council are again constrained to express their regret, that the reduction of the Annual subscription to so small a sum as ten shillings should ever have been established. The Council have also to regret that, in consequence of the limited attendance at a late special meeting, called for the purpose of taking into consideration the engrafting of an Historical branch of the Society, so desirable a measure remains undecided, and the more so, as it would probably have increased the funds ; but we trust it will ere long meet with that attention which its importance deserves.

The Council have, during the past year made the essay of throwing open the museum to the public, on particular occasions ; which movement was crowned with complete success, from the large number of visitors who have been gratified, without the least damage to the property of the Society. The last occasion was to the soldiers of the XXth regiment.

The Council have made a conditional arrangement, with the present Assistant Curator for the current year, upon the same terms and conditions as the past. The memorandum of agreement embodying the same, is laid upon the table, the same being subject to the approval of this meeting.

In resigning their charge into the hands of their successors, the Council would beg to impress upon them, the necessity of the most zealous, unremitting exertions on behalf of the Society, which requires all possible assistance from its office-bearers and friends, in order to secure that proud position, at which it aims, the promotion of the study of natural history, and

general science and literature ; and it is to be sincerely hoped that the onward step taken during the past year, may be continued and extended, so that each succeeding Annual Meeting may exhibit progress and improvement,—for the attainment of which all and every one of the members of the Society should consider themselves pledged, and none more so than the members of the Council, upon whom so much responsibility devolves whether for progress or retrogression.

JOHN OSTELL,
Chairman of Council.

Committee Room, Natural History Society, }
May 18, 1853.



TWENTY-SIXTH

ANNUAL REPORT

— OF THE —

NATURAL HISTORY SOCIETY

OF MONTREAL,

DELIVERED BY THE LATE COUNCIL,

— AND —

READ AT THE MEETING OF THE SOCIETY,

----18th May, 1854.----

MONTREAL:

PRINTED BY WILSON & NOLAN, M'GILL STREET.

1854.

OFFICE-BEARERS AND COUNCIL,
FOR THE YEAR 1854-5.

President.....REV. W. T. LEACH, D.C.L.

First Vice-President.....DR. SUTHERLAND.

Second Vice-President.....L. A. H. LATOUR, ESQ.

Third Vice-President.....DR. JONES.

Corresponding Secretary.....DR. D. C. M'CALLUM.

Recording Secretary.....A. N. RENNIE, ESQ.

Treasurer.....DR. BENJAMIN WORKMAN.

Cabinet-Keeper & Librarian..DR. WM. WRIGHT,

DR. FRASER,

DR. SCOTT,

DR. BARNSTON,

REV. A. DESOLA, and

H. A. DAVIES, ESQ.

REPORT, &c.

TO THE NATURAL HISTORY SOCIETY OF MONTREAL

THE conclusion of another year in the operations of your Society having arrived, your Council beg to lay before you a sketch of them, at this, the Annual Meeting, not only as the last duty devolving upon them, but to evince to the Members of the Society that, though not marked with any peculiar features, they have been progressively instrumental in furthering their great object of extending and preserving in the public mind, the importance and the utility of the study of Natural History.

The free opening of your Museum on Holidays, has been found greatly conducive to this end, having been inspected by a great number of persons on such occasions, while some improvements in the arrangement of the specimens by your Curator, have enabled visitors to examine them with greater facility.

The crowded state of the rooms, however, has made this inspection at times inconvenient, and your Council have had their thoughts anxiously directed to an enquiry into the possibility of obtaining a larger and more commodious building in a more eligible situation. For this purpose, a Special Committee was formed, the result of whose labour was, however, after most diligent enquiry and very mature deliberation, on account of the advanced value of land, particularly in suitable central sites, to recommend to the Council for the present, to give up the project of a removal. Your Council were therefore reluctantly compelled to relinquish all further attempts to accomplish the scheme, or to recommend it to the Society, in the hope that a more favourable opportunity may be afforded to their successors, to realise what they have so earnestly desired, on account of its evident tendency to promote the interests of the Society.

Your Council regret their having to report the withdrawal during the year of the late President, Major R. Lachlan.

from the office he held with so much benefit to the Society ; and also of W. E. Logan, Esq., the Provincial Geologist, who was elected to succeed him. They have pleasure, however, in congratulating the members upon the election of the Rev. Dr. Leach, as their successor in the Presidency of the Society.

The Council also have to regret their inability to accomplish the wishes of their predecessors, to establish Literary Soireés,—difficulties having operated to frustrate their endeavours, and postpone the accomplishment of so desirable a measure.

The following Report of the Librarian and Cabinet-keeper, will show the present state of the Library and Museum, which, though not very greatly enlarged, have received some valuable additions to their contents. Your Council trust, however, from the means they have used, to call the attention of the Corresponding Members to this department of the Society's efforts, to receive from them more liberal contributions ere long.

The Report of the Treasurer and Finance Committee will be found to contain a statement of the Society's Financial affairs, that calls for the earnest and immediate consideration of the members. The receipt of the grant of £150 from Government has, as will be perceived, enabled your Council to reduce the amount due, on account of the purchase of the Society's premises, to £150, so that the payment of this sum whenever it can be effected, will put the Society into entire possession of the valuable property they hold.

The paucity of the Society's funds have completely prevented your Council from adding anything to the Museum by purchase, or to the Library any of the valuable scientific works now in course of publication, and still less to do anything in promoting the objects of the Society by the offer of Prizes to successful candidates for Essays on subjects of Natural History, important to the interests of Canada.

Your Council feel it to be a duty incumbent on them to call the particular attention of the Society to the valuable Report of your excellent Treasurer, who has with indefatigable pains examined the accounts of the Society for 18 years, to prove that some augmentation of the annual sub-

scription is necessary, in order to enable its Funds to bear their present and prospective expenditure. From a careful perusal of that document, your Council are impressed with a conviction, that it has become their duty also, strongly to recommend the increase of the Annual Subscription, as suggested by the Treasurer.

The Council have pleasure in announcing that the number of the Society's Members has been augmented by the addition of Lord Ellesmere, and Robert Stephenson, Esq., M.P., as Honorary Members ; nine Corresponding Members ; and twelve Ordinary Members.

Your Committee have, however, to regret the loss of two Ordinary Members by death ; and three by resignation ; leaving the number of paying members at present on the list, 139, being a nett increase of 10 members during the year.

The Lectures delivered during the Winter Session, have been generally well attended, and were the following :—

1. The Introductory Lecture, by the President—Rev. Dr. Leach. Subject :—Geology.
2. By Edwin C. Bockus, Esq. Subject :—The Scottish Rebellion, in 1845.
3. By Dr. Hingston. Subject :—Sound.
4. By Professor Andrew. Subject :—Writing : the origin, mode, and materials.
5. By the Rev. J. Cordner. Subject :—An Excursion on Mount Righi.
6. By J. T. Dutton, Esq. Subject :—The Aurora Borealis—its Phenomena—peculiar Meteorological Exhibitions—and probable Causes.
7. By T. S. Hunt, Esq. Subject :—The Physical History of the Races of Man.
8. By Dr. B. Workman. Subject :—The Geology of Montreal.
9. The Concluding Lecture—by A. N. Rennie, Esq. Subject :—The relation between Poetry and History.

The Council beg to acknowledge the debt of gratitude due to the gentlemen who consented to deliver the foregoing Lectures, and trust that their efforts will stimulate others to imitate their example, and when at leisure, prepare materials for the next Winter's Course. They would also embrace the opportunity of continuing the appeal of their predecessors, to make strenuous efforts for the regular establishment of literary and scientific Soirées, in connexion with the operations of the Society ; being persuaded that at a moderate expense, they might be made instrumental in calling forth much native talent, and exciting in the young a strong desire for literary and scientific attainments.

Your Council having failed in opening any negotiation likely to be successful in obtaining a more suitable building, would recommend an immediate survey of the present one, in order to effect such repairs as are necessary, to preserve it from fire and delapidation ; some parts of it being too much exposed to danger from fire, and other parts having been found affected by the weather, to an extent calculated to deteriorate the building, and lessen its value.

In conclusion, the Council would urge upon the officers and members, the necessity of persevering and sedulous attention to the interests of the Society, and zealous exertion during the coming year ; and especially to maintain a punctual attendance upon the Monthly Meetings ; being convinced that it will require all the efforts which the Society can put forth, to maintain its standing as a principal deposit of specimens of Natural History, in Canada, and the pioneer of the Science in British North America.

All which is respectfully submitted.

T. K. RAMSAY,
Chairman.

COMMITTEE ROOM, }
Montreal, 15th May, 1854. }

LIBRARIAN AND CABINET-KEEPER'S REPORT.

1858-4.

SINCE the period of the last Annual Meeting, I have to report that the alterations in the Museum then in course of progress, have been completed. Furthermore, that the Mineralogical apartment has undergone considerable improvement; a room has been fitted up with such statues, busts, &c., as belong to the Society; the walls of the passages of the upper stories have been decorated with the war, and other implements of various nations; suitable cases have been procured for the coins, medals, &c.; and changes have been made in the disposition of different specimens, with a view to their more correct arrangement. The want of funds to meet the necessary expenses, has delayed farther improvements, some of which are much needed, as: the purchase of cases for a number of specimens, chiefly ornithological, which are unprotected from accident and destruction.

The chief additions during the past year to the Museum, have been in coins and minerals; of the coins, 43 in number, some are exceedingly rare, while others are duplicates of those already in possession. Two gentlemen have each contributed a highly prized donation of 15 mineralogical specimens, in good preservation, and of well marked characters. To one donor, Mr. Samuels, the Society is much indebted for a number of objects brought by him from the Marquesas and adjoining Islands, most of which exhibit the ingenuity and workmanship of the native inhabitants.

The number of paying visitors has been comparatively small. The Library has been augmented by but very few donations, and these for the most part have consisted of pamphlets, there being in the whole number but five volumes. The donors have chiefly been gentlemen residing out of the city. The Society has not had the means of procuring any works by purchase. Measures were adopted to secure the return of the missing books, 150 in number; but so far, they have proved quite ineffectual. It is very desira-

ble that this valuable property should be restored, and it has been suggested that advertisements in the daily papers might be productive of success.

A Register has been opened for the entry of donations to the Museum and Library, and at much trouble it has been drawn up from the foundation of the Society, in 1827, to the present time ; and gives as complete an enumeration of the articles presented, with the names and residence of their donors, as the records of the Society permit.

In conclusion, it is proposed that Members, both Ordinary and Corresponding, be solicited and encouraged to make personal donations to both Museum and Library.

(*Signed,*)

WM. WRIGHT, M.D.,

Librarian and Cabinet-Keeper.



TREASURER'S REPORT.

1853-4.

In submitting a statement of the Financial condition of the Society, the Treasurer deems it necessary to notice :

1. The Debts.
2. Sources of pecuniary support.
3. Contingencies to be provided for.
4. Means for improving our pecuniary resources.
5. Items of Income and Expenditure, during last year.

I. DEBTS.

These are included under two heads, a Mortgage Debt, and Miscellaneous Unsettled Accounts, viz. :—

| | |
|---|-----------|
| Mortgage..... | 150 0 0 |
| Sundries, including City Taxes, Periodicals, Printing, Advertising, and Stationery..... | £ 25 14 5 |
| Total Debts due by the Society..... | 175 14 5 |

II. SOURCES OF PECUNIARY SUPPORT.

These consist of Entrance Fees, collected at the door of the Museum ; a charge of one dollar for each Diploma issued ; an Annual Subscription of two dollars each, from Members ; and a small Annual Parliamentary Grant. During the past year, there were received :—

| | |
|---|------------|
| Entrance Fees paid at the Door of the Museum..... | £ 3 0 0 |
| For Diplomas, and Interest, &c..... | 8 2 11 |
| For Subscriptions of Members..... | 52 10 0 |
| Parliamentary Grants— | |
| For 1851-2..... | 50 0 0 |
| For 1852-3..... | 50 0 0 |
| For the House..... | 150 0 0 |
| Total Income of the Society during the year 1853-4..... | £313 12 11 |

III. CONTINGENCIES TO BE PROVIDED FOR.

These consist of—

| | | | |
|--|------|----|---|
| Repairs required on House and Cabinet..... | £200 | 0 | 0 |
| Curator's Salary..... | 30 | 0 | 0 |
| Fuel, (say)..... | 20 | 0 | 0 |
| Gas Light..... | 10 | 0 | 0 |
| Stationery..... | 5 | 0 | 0 |
| Interest of Debt..... | 9 | 0 | 0 |
| Water Rent..... | 3 | 0 | 0 |
| City Taxes..... | 9 | 17 | 6 |
| Incidental Expenses, (say)..... | 25 | 0 | 0 |
| Total..... | £311 | 17 | 6 |

This Estimate does not provide for any increase to the Salary of the Curator, a contingency, which, in view of the great advances in the prices of every necessary of life, and the duties and responsibilities devolving upon him, ought to be entertained. From these premises, it *may* be safely affirmed, that a sum of more than *three hundred pounds* would be required during the coming year, to keep the Society, its House, and Museum, in a safe and complete condition.

IV. MEANS OF IMPROVING OUR PECUNIARY RESOURCES.

This is the most important, and at the same time, the most embarrassing question that presents itself to the Society. It has been already stated, that our resources of income, exclusive of Parliamentary Grant, do not exceed £64 per annum, while the Society has to provide for an outlay of at least £300, with only 141 members, paying ten shillings each; a small Annual Parliamentary Grant, and a few other trivial items, to meet this amount. How is this deficiency to be made up? Would it not be advisable *inter alia* to increase the Annual Subscription of members? If we do so, we can come before Parliament with a good grace, to ask for an augmentation of Legislative munificence. No step taken by the Society, since its commencement, has so seriously impaired its financial affairs, as the reduction of its Annual Subscriptions from five dollars to two dollars.—Upon reference to the accounts of the Society, the undersigned finds, that the aggregate amount of subscriptions paid in during the years 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, and 1842, was £842 13s. 0d., being an average of £93 12s. 7d. per annum, realised from members' subscriptions, when the rate was five dollars per annum. The aggregate

amount of subscriptions paid in during the nine years that have elapsed since the rate was reduced to ten shillings for each member, viz.: 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852 and 1853, is only £342 12s. 6d., being an average of £38 1s. 5d. per annum. Such have been the disastrous results of this penurious policy. It does not appear clear to the undersigned how the Society could have escaped actual insolvency, as the consequence of this reduction, had it not been so fortunate as to be enabled to realize a considerable sum annually, by renting a part of its edifice to the Provincial Geological Survey, and thereby materially alleviating its crippled pecuniary condition for several years. But as this source of income is now no longer available, the question arises,—how can we sustain our enterprise? The undersigned sees no other mode of doing so but by an increase of the Annual Subscriptions, and an augmentation of our Annual Parliamentary Grant.

V. ITEMS OF INCOME AND EXPENDITURE DURING THE
LAST YEAR.

These will be seen by a reference to the Account Current which accompanies this report.

Natural History Society in Account with Benjamin Workman, Treasurer.

| 1853. | | DR. | |
|--|------|-----|-----|
| HOUSE AND HOUSE-FIXTURES— | | | |
| MORTGAGE—Paid W. Watson, in part | 125 | 0 | 0 |
| CARPENTERS' WORK— | | | |
| Paid Dr. Gibb, for work superintended by him in the Museum.. | 9 | 15 | 1 |
| " A. & A. McDonald..... | 16 | 0 | 0 |
| " James Simpson..... | 11 | 13 | 9 |
| " John Ash..... | 0 | 17 | 6 |
| " J. Laphorn..... | 1 | 5 | 8½ |
| Winter Door..... | 1 | 0 | 0 |
| Small repairs..... | 5 | 5 | 9 |
| | 45 | 17 | 9½ |
| PLASTERERS' WORK— | | | |
| Paid Akin & Morrison..... | 2 | 17 | 3 |
| " J. M'Lean..... | 0 | 19 | 7 |
| | 3 | 16 | 10 |
| PAINTERS' WORK AND PAPERING— | | | |
| Paid W. Lloyd, Painter..... | 3 | 0 | 0 |
| " O. M'Garvey, do..... | 2 | 13 | 9 |
| " G. Holland, paper..... | 1 | 1 | 4 |
| | 6 | 15 | 1 |
| Plumbers' Work..... | 7 | 4 | 9 |
| | 13 | 19 | 10½ |
| Total for House and Fixtures..... | 188 | 14 | 5½ |
| COMMISSIONS— | | | |
| J. Hoggard, on Collections of Subscriptions..... | 2 | 6 | 9 |
| City Bank, Com. on Gov't. Grants. | 0 | 12 | 6 |
| City & District Savings' Bank, discount on U. C. money..... | 0 | 0 | 7½ |
| | 2 | 19 | 10½ |
| POSTAGES— | | | |
| Paid J. T. Dutton..... | 0 | 5 | 0 |
| " " last year..... | 0 | 10 | 3 |
| " Major Lachlan..... | 0 | 5 | 3 |
| " B. Workman..... | 0 | 5 | 3 |
| | 1 | 5 | 9 |
| Total Commissions and Postages... | 4 | 5 | 7½ |
| INCIDENTALS— | | | |
| Salary paid Thos. Broome, in full to 1st May, 1854..... | 30 | 0 | 0 |
| FIREWOOD— | | | |
| Paid Evans, Bro's..... | 13 | 12 | 6 |
| " Wm. Rodden..... | 15 | 15 | 3 |
| " Thos. Broome..... | 0 | 16 | 3 |
| " Sawing, 9s 4d, 14s 7d, 2s 6d.. | 1 | 6 | 5 |
| | 31 | 10 | 5 |
| ADVERTISEMENTS— | | | |
| Paid Montreal Herald..... | 1 | 5 | 0 |
| " " Transcript..... | 0 | 5 | 0 |
| | 1 | 10 | 0 |
| ENGRAVING — | | | |
| Paid G. Matthews..... | 0 | 15 | 0 |
| " F. Adams..... | 0 | 5 | 0 |
| | 1 | 0 | 0 |
| CANDLES— | | | |
| Paid E. E. Shelton..... | 2 | 0 | 0 |
| " T. Broome..... | 0 | 10 | 0 |
| " Mrs. Broome..... | 1 | 5 | 0 |
| | 3 | 15 | 0 |
| PRINTING— | | | |
| Paid Rollo Campbell, advertising.. | 1 | 5 | 0 |
| " Moore, Owler & Stevenson, Annual Report..... | 3 | 0 | 0 |
| | 4 | 5 | 0 |
| Paid W. Watson, Interest..... | 17 | 3 | 6 |
| " City Taxes..... | 9 | 7 | 6 |
| " Water Rent..... | 3 | 0 | 0 |
| " Insurance..... | 10 | 0 | 0 |
| " J. Gillespie, fixing Stoves..... | 0 | 17 | 6 |
| " Estate of late H. Griffin, N.P. | 0 | 12 | 6 |
| " R. & A. Miller..... | 2 | 6 | 4 |
| " Medical Chronicle..... | 0 | 10 | 0 |
| " Medical Journal..... | 0 | 15 | 0 |
| " A. G. Lachlan, writing..... | 1 | 0 | 0 |
| " Thos. Broome, stuffing a Seal. | 2 | 17 | 6 |
| " for cleaning Privy..... | 3 | 0 | 0 |
| " Express..... | 0 | 17 | 6 |
| | 41 | 24 | 7 9 |
| Total for Incidentals..... | £124 | 7 | 9 |
| | £317 | 7 | 10 |

| 1853. | CR. |
|--|-----------|
| By Balance on hand this day..... | £ 3 14 7 |
| SUBSCRIPTIONS— | |
| Collected from 106 members..... | £ 52 10 0 |
| Collected for 17 Diplomas..... | 4 5 0 |
| Total for Subscriptions and Diplomas.... | 56 15 0 |
| PARLIAMENTARY GRANTS— | |
| Received for 1851-2..... | 50 0 0 |
| do for 1852-3..... | 50 0 0 |
| do for House..... | 150 0 0 |
| Total Parliamentary Grants..... | 250 0 0 |
| SUNDRIES— | |
| Entrance Fees received at door..... | 3 0 0 |
| Interest at City and District Savings' Bank, to 31st Dec., 1853..... | 0 17 11 |
| | 3 17 11 |
| By Balance due Treasurer..... | 3 0 4 |

MONTREAL, 17th May, 1854.

(Errors and omissions excepted,)

BENJAMIN WORKMAN, Treasurer.

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TWENTY-SEVENTH

ANNUAL REPORT

OF THE

Natural History Society

OF MONTREAL,

DELIVERED BY THE LATE COUNCIL,

AND

READ AT THE MEETING OF THE SOCIETY,

18TH MAY, 1855.

MONTREAL:

PRINTED BY H. & G. M. ROSE, GREAT ST. JAMES STREET.

1855.

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OFFICE BEARERS AND COUNCIL

FOR THE YEAR 1855-6.

President.....THE LORD BISHOP OF MONTREAL,

First Vice-President.....~~PROFESSOR W. ANDREW.~~ *in Quebec*

Second Vice-President.....L. A. H. LATOUR, ESQ.

Third Vice-President.....W. H. A. DAVIES, ESQ.

Corresponding Secretary...DR. D. C. M'CALLUM.

Recording Secretary.....A. N. RENNIE, ESQ.

Treasurer.....DR. BENJAMIN WORKMAN.

Cabinet Keeper & Librarian...DR. WM. WRIGHT,

DR. FRASER, DR. SCOTT, DR. BARNSTON,

DR. HINGSTON, GEORGE BROWN, ESQ.

REPORT.

TO THE NATURAL HISTORY SOCIETY OF MONTREAL.

THE period when, according to custom, a sketch of the proceedings of the Natural History Society, for the last twelve months, should be submitted to the members, having again arrived, your Council proceed to discharge the duty imposed upon them.

If they cannot congratulate the members upon any great increase in the prosperity or influence of the Society, they can at least say that its sphere of usefulness has not been diminished, and that the number of its members continues to increase. The great object for which it was established, that of extending and preserving in the public mind the importance and utility of the study of Natural History, has been steadily persevered in; and if the laborers have been few, and the discouragements met with many, it is hoped that the efforts made have not been entirely fruitless, and that in the wide field embraced within the operations of the Society, additional help will be received, and more energetic action entered upon, during the course of the present year.

In accordance with the recommendation contained in the last report of the Council, the Society resolved that from the first of January last the annual subscription should be raised to *four dollars*. The Treasurer has shewn that heretofore the higher rate of subscription worked well; the present effect of this measure yet remains to be tested; the accounts for the present year at the increased rate, not being yet issued, your Council having deemed it expedient, in view of the general monetary depression, and the additional calls thereby occasioned, to defer collecting the subscriptions until the business season had fairly commenced. They recommend to their successors that this work should now be immediately undertaken, and they trust when members reflect how much the prosperity and usefulness of a Society depend upon the manner in which the annual contributions to its funds are paid up, that they will not be backward in performing this part of their duty, by discharging the arrears which are now outstanding, as well as paying up the subscription for the current year.

The Council, on the departure of Lord Elgin, late Governor-General of this Province, the then Patron of the Society, hailed with satisfaction the arrival of His Excellency Sir Edmund Head, his successor. His classical and literary reputation had preceded

him to this Colony, and his attachment to pursuits of a kindred nature to their own, pointed him out as one whose acceptance of the office his predecessor's return to England had left vacant, would reflect honor on the Society. His Excellency's late visit to Montreal afforded a desirable opportunity of ascertaining his wishes on this point. The council, headed by the President, and accompanied by several members of the Society, accordingly waited on His Excellency with a congratulatory address, at the same time respectfully praying him to become their Patron. They are happy to inform the Society that their reception was a most cordial one, and that Sir Edmund Head most readily and in the kindest manner consented thus to honor them. The Council would respectfully recommend that His Excellency be elected an Honorary Member of the Society.

The Librarian and Cabinet Keeper's Report, annexed, will shew the state of the Museum and Library, and the additions made thereto during the past year. The Council cannot but join in the regret expressed in this report at the paucity of the Donations, especially to the Museum, the increase of which must always be an object of paramount interest to the Society. With respect to the Library the Council cannot refrain from saying, that, with the present imperfect accommodation, there is little inducement for members either to give to, or consult, the Library of the Society; they earnestly recommend this subject to the consideration of their successors in office, with a view to giving greater accommodation to this portion of the Society's property. During the course of the year the Society passed a Resolution abolishing the small fee which had previously been exacted from Visitors to the Museum, thus doing away with the last restriction to the free admission of the public to their collections. The Council have much pleasure in stating that this measure has been followed by no ill effects to the safety of the Museum. It is an earnest of the willingness of the Society to do their part in making their collection what it ought to be, a national one.

The council have not lost sight of the recommendation of their predecessors, as to the propriety of establishing Literary Soirees as soon as the difficulties that have hitherto operated to prevent their organization could be overcome; the council, however, regret to say that the same difficulties still militate against the introduction of so desirable a measure, and that consequently nothing has been done during the past year in this matter.

The council have to express their regret that the services of so few of the members have been obtained as Lecturers during the last session. In this respect, however, they have been more fortunate than some other Literary Societies, who were unable to find sufficient assistance to form a course. The following are

the lectures that have been delivered with the names of the Lecturers and their subjects :

1. The introductory Lecture, by Dr. Workman. Subject—The importance of the study of Natural History.
2. By Dr. Barnston. Subject—The Flora of Montreal Mountain.
3. By J. T. Dutton, Esq. Subject—The utility and importance of the Science of Chemistry to Commerce and Manufactures.
4. By Dr. Hingston. Subject—Animalculæ.
5. By A. N. Rennie, Esq. Subject—Prose Fiction.
6. By J. T. Dutton, Esq. Subject—A continuation of his first Lecture.

The Council acknowledge the debt of gratitude due to the gentlemen who so kindly came to their assistance when required, and delivered this series of lectures. They hope a regular course will be entered upon next session, and are happy to say that already four names have been obtained, who promise to be prepared as soon as called upon to open the course.

Besides these Lectures forming the Society's regular course, at one of the ordinary meetings Dr. Barnston read an excellent Memoir on the Chimpanzee or Black Orang of Africa, and at another meeting Mr. Dutton read a paper on "*Geology*." Both subjects excited some discussion, and the council cannot help expressing a hope that contributions in this shape will, for the future, become more general from the members, and that the ordinary meetings will not always be simply for the transaction of routine business, but may also be for receiving and imparting of information in this very agreeable manner.

The Treasurer's Report contains a statement of the Society's financial affairs, which deserves the particular attention of the members. Only 68 of their number have contributed by their annual subscriptions to the funds of the Society during the past year.* The amount thus received, together with the Government Grant of £150, has barely sufficed to keep the Society in working order, and to pay off a small portion of the debt on the premises. While the council would speak with respect of the aid afforded to the Society by the Legislature, they cannot refrain from contrasting the liberality shewn by that body during the last few sessions to other institutions of a similar description, with the aid afforded to this Society. Towards promoting the study of Natural History, and affording the public the means whereby they may gratify it, and for an extensive and general collection, both animal and mineral, no other Society in this Province has done so much, or laboured so long, and yet the assistance furnished to

* This does not include of course the subscriptions for 1851, collected from 40 members previous to the Annual Meeting on 18th May, 1854, as those were included in the Treasurer's Report for 1853-4.

us by the Legislature is in the proportion of rather less than one fourth of that afforded to the Canadian Institute in Toronto,—the grants made to the Natural History Society during the last three years amounting to £400, while those to the Canadian Institute have reached £1750. It is hardly necessary for the Council to state that in making these remarks it is very far indeed from their intention to disparage the exertions or the utility of that Institution, whose greater good fortune they have instanced, nor would they for a moment imagine that the grants they have received are too much. Far from it; fellow laborers with ourselves in the field of science, we hail with pleasure and satisfaction the aid granted to them by the liberality of the Legislature, while at the same time it is permitted to us to bring the precedent thus afforded, as a reason why aid to a similar amount should also be afforded to us, an older institution. Your Council would therefore recommend that a representation to this effect be made to the Executive, and that additional assistance be prayed for, so as to enable the Society to carry out more effectually the design for which it was established.

The Society during the past year have had to regret the death of one of their oldest and most energetic members, and one whose exertions in promoting the cause that the Society has at heart, were beyond all praise. It is to the liberality and kindness of the late Dr. McCulloch that the Society is indebted for many of the finest specimens that now enrich its museum. A vote of condolence with his widow and family, in their deep affliction, has already been passed, but the Council feel assured that these few passing words, "*in memoria*," will be responded to and appreciated by every member of the Society. With this exception, and the loss of Sir James Alexander who, having left this country, has been put on the list of Corresponding Members, there has been nothing in the shape of loss to chronicle. The number of Ordinary Members at present on the list is 148, twelve having been admitted during the year; to the list of Corresponding Members four additions have been made, while only two members have withdrawn from the Society.

Having now traced the leading features of the Society's history during the past year, it only remains for the Council to make a few remarks on its present position and future prospects. While it would be useless to deny that the state and position of the Society are not satisfactory, and that its career of usefulness has not, of late years, been such as the friends of science could have wished, the Council would yet fain hope that it has in some degree been progressive; but the Society must ever bear in mind that the rate of progress which would, in the earlier stages of its history, have been satisfactory, will now no longer be considered so, in view of its increased means as exemplified

in its collections ; nor must it be forgotten that, in the scientific as in the moral world, the possession of wealth entails with it the responsibility of making a proper use of it, under the inexorable penalty of disgrace and ruin. Possessed of an extensive museum, enriched through the means of Legislative grants, to some extent, it is not, it cannot be, permitted to the Society to rest satisfied with being the mere custodians of the treasures they hold,—something more is expected from them,—these treasures must be increased, and the knowledge of nature they are calculated to impart must be made available by every possible means. Nor are the expectations of those who look for something more from the Natural History Society than being mere cabinet-keepers unreasonable. We have taken an honorable title upon us, and the public have a right to demand that we should act up to the duties entailed upon us by such an assumption, nor while we bear the name can we rid ourselves of the duties implied by such a name. Fortunately the duties so assumed, and the opportunities for carrying them out, are neither difficult in the one case nor unfrequent in the other ; the one consists in doing everything in our power to aid and assist in the extension of the study and of the science of Natural History, by lectures and by the publication of such facts as are of interest in that science, as well as by the collection of all such objects as illustrate it—and the other consists in the wide field opened for our exertions ; for placed in a new and almost unexplored country, every fact or specimen we can collect is sure to be of interest either as confirmatory of something known before, or as illustrative of something till then unknown.

It ought to be the honorable ambition of every society that its fame should not be confined to the locality where it is placed, but that it should be favorably known abroad, and this object can only be attained by means of the press. The Council would therefore suggest the expediency of establishing a quarterly or semi-annual publication by the society, of papers connected with scientific subjects, more particularly those of Natural History. They cannot but think that the society must possess among its records many papers of value, that might be published to advantage, and that among the members of the society there is a sufficient amount of talent and scientific knowledge to insure the continuation of such a publication when once begun. It is the opinion of this Council that no means the society could take to arouse its dormant energies or awaken a taste for the study of nature would be so efficacious as this ; they therefore earnestly recommend it to the consideration of the Society.

Before concluding, the Council would bring under the notice of the society the state of their property. The house is far from being in the state of repair it ought to be ; they would therefore

recommend that an immediate survey of it should be made, for the purpose of ascertaining the extent and amount of the deterioration, and the sum required to put it in thorough repair.

It now only remains for your Council to reiterate the urgent recommendations of their predecessors, as to the necessity of persevering and sedulous attention to the interests of the society, and of zealous exertions during the coming year. Every motive that can animate the lover of science calls for them, and success must as a matter of course crown their efforts, if made in such a spirit ; while, on the contrary, apathy and neglect must entail a languid and useless existence on the part of the society. For the members may be assured that it is only by sparing no exertions on their part that they can make the society a useful one, or derive practical and permanent advantage from the important and interesting study the Natural History Society professes to encourage.

W. H. A. DAVIES,
Chairman of Council.

Natural History Society's Rooms,
Montreal, 18th May, 1855.

REPORT
OF
THE LIBRARIAN & CABINET KEEPER FOR 1854-5.

THE accessions that have been made to the Library and Museum during the twelve months now elapsed are detailed in the subscribed statements. From a comparison of them with those presented at the last anniversary meeting, it will be observed that recently the augmentation in donations to the Library exceeded in number the specimens that had been given to the Museum, while on the previous year the increase was chiefly experienced by the latter department of the Society.

The list of new books has been so arranged as to dispose them into two groups. 1stly, Transactions of Public Bodies; 2ndly, Monographs. The more important of the works under the former division will be found to be the Statutes of Canada, Transactions of the American Institute for 8 years, and the volumes containing the Bombay and Madras Magnetical Observations. Under the latter head, one in particular may be signalized, viz., Cassin's Illustrations of the Birds of California, Texas, Oregon, British and Russian America.

Regret cannot but be felt at the paucity of additions made to the Museum, and that notwithstanding repeated solicitations, members especially, the corresponding are rather more remiss than formerly in their responses to enrich the Cabinet with objects of Natural History.

Of the alterations made in the internal arrangements of the Museum, it is only necessary to particularize one: the coins which had hitherto been in the custody of one of our members have been collected and deposited in the Mineralogical Apartment in suitable cases, expressly manufactured for their safe keeping.

The present Report may not be inaptly concluded with an extract from its predecessor. "The want of funds to meet the necessary expenses has delayed further improvements, some of which are much needed, as the purchase of cases for a number of specimens, chiefly ornithological, which are unprotected from accident and destruction." To this it may be added, that the glass cases now in the Library are insufficiently commodious for its purposes, and that many valuable books have consequently to be temporarily stowed away in obscurity.

WM. WRIGHT, M.D.,
Librarian & Cabinet Keeper.

DONATIONS, &c., TO THE LIBRARY, 1854-5.

Statutes of Canada, 1854-5, 2 parts.

Edit's Ordonnances Royaux, 1854.

Transactions of American Institute, 8 vols, 1847 to 1853, inclusive, from the American Institute of New York.

Transactions of Literary and Historical Society, Quebec, January 1855, from the Society.

Bombay Magnetical and Meteorological Observations, 1850, from the Court of Directors.

Proceedings of Boston Society of Natural History, Vols. 1, 2 and 3, and Nos. 1, 2, 3, 4 and 5 of Vol. 4, from L. A. H. Latour, Esq.

Seventh Annual Report of the Regents of the University of the State of New York of the Cabinet of Natural History, January, 1854.

New York State Register, 1845-6, by O. S. Holley, Esq., from Editor.

City Inspectors Report, New York, from J. B. Sabine, Esq.

Disturnell's Railway and Steamboat Guide, from the Editor.

Disturnell's American and European Guide, from the Editor.

Annual Announcement of Medical Faculty of McGill College.

Notes sur les registres de Notre Dame de Quebec, from J. B. A. Ferland, Esq.

Notes of a Half-pay in Search of Health, from H. E. Scott, Esq.

Neglect of Chemistry by Practical Farmers, by E. J. Hemming, from Author.

Advantages of Study of Natural History Society, a Lecture, by E. Crisp.

Illustrations of the Birds of California, Texes, Oregon, British and Russian America, by John Cassin, 1853, 6 parts, from the Author.

Exploration Geologique du Canada, from Dr. Workman.

Description of and Remarks on a Chimpanzee, by J. Barnston, M.D., from the Writer.

The following publications have been received during the year 1854-5 :--

Medical Chronicle, monthly, Montreal.

Canadian Journal, monthly, Toronto.

Canada Gazette, weekly, Quebec.

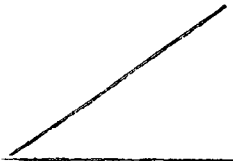
Law Reporter, Montreal.

Canadian Literary News Letter, 2 numbers, Montreal.

DONATIONS TO THE MUSEUM, 1854-5.

- Young Crabs taken out of Oysters, from W. E. Isaacson, Esq.
Stone taken from Bed of River St. Lawrence, from A. N. Rennie, Esq.
Three Specimens of Ore from Valparaiso, (2 gold, 1 native silver) from Captain Fraser.
Petrified Wood taken from Swift Creek, L. Ca., from Captain Fraser.
Petrified Deer's Antler, from S. Ducharun, Esq., Lachine.
Three sets of Copper Coins, 6, 4 and 7 in number, respectively, from L. A. H. Latour, Esq.

Dr. Natural History Society in Account with Benjamin Workman, Treasurer. Cr.

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| May 17, To balance due Treasurer | | | | - | - | - | £3 0 4 | By cash received from 68 members | | | | - | £34 0 0 | | |
| paid T. Broome, 12 months' salary, | | | | - | - | - | 30 0 0 | cash for a Diploma | | | | - | 0 5 0 | | |
| paid for Firewood, | | | | - | - | - | 31 1 3½ | cash subscription for Gas Fixtures | | | | - | 2 12 6 | | |
| paid Candles and Gas | | | | - | - | - | 2 14 4 | cash Government Grants | | | | - | 150 0 0 | | |
| paid Freight and Postages | | | | - | - | - | 0 12 2½ |  | | | | | | | |
| paid Collectors' Commissions | | | | - | - | 1 15 0 | | | | | | | | | |
| paid on Mortgage and Interest | | | | - | - | 59 0 0 | | | | | | | | | |
| paid Repairs of House and | | | | - | - | | | | | | | | | | |
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TWENTY-EIGHTH
ANNUAL REPORT

OF THE

Natural History Society

OF MONTREAL,

DELIVERED BY THE LATE COUNCIL,

AND

READ AT THE ANNUAL MEETING OF THE SOCIETY,
19TH MAY, 1856.

MONTREAL:

PRINTED BY HENRY ROSE, GREAT SAINT JAMES STREET.

1856.

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19TH MAY, 1856.

MONTREAL:



WITH THE COMPLIMENTS OF

Major ~~Capt~~ L. A. Huquet-Latour

1st, or Prince of Wales Regt. of Rifles.

Montreal, Canada.

OFFICE BEARERS AND COUNCIL

FOR THE YEAR 1856-7.

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|--------------------------------------|--|
| <i>President</i> | MR. PRINCIPAL DAWSON. |
| <i>First Vice-President</i> | L. A. H. LATOUR, ESQ. |
| <i>Second Vice-President</i> | W. H. A. DAVIES, ESQ. |
| <i>Third Vice-President</i> | REV. A. D. CAMPBELL, M.A. |
| <i>Treasurer</i> | DR. WORKMAN. |
| <i>Corresponding Secretary</i> | DR. HINGSTON. |
| <i>Recording Secretary</i> | A. N. RENNIE, ESQ. |
| <i>Curator and Librarian</i> | DR. BARNSTON. |
| <i>Council</i> | REV. CANON LEACH, D.C.L., REV. A. KEMP, DR. R. P. HOWARD, J. T. DUTTON, ESQ., DR. FRASER. |
| <i>Library Committee</i> .. | DR. MCCALLUM, DR. JONES, DR. WRIGHT, DR. SCOTT, REV. CANON GILSON, M.A. |

TWENTY-EIGHTH ANNUAL REPORT.

At the Annual General Meeting of the NATURAL HISTORY SOCIETY, held in the Museum on Monday May 19th, 1856, Present,—The Lord Bishop of Montreal, President of the Society in the Chair; Rev. A. D. Campbell, Rev. A. Kenap, Drs. Fraser, Workman, Wright, Scott, McCallum, Jones, Kingdom, Hingston, Barnston, Fenwick, Principal Dawson, Messrs. Davis, Latour, Rennie, Dutton, Commissary General Ibbetson, Brown, Hims-worth.

The minutes of the last Annual General Meeting were read over and confirmed.

And after the transaction of some routine business the following Report from the Council was read, and submitted for approval:—

TO THE NATURAL HISTORY SOCIETY OF MONTREAL.

THE COUNCIL of the Natural History Society of Montreal, in obedience to custom and constitutional requirement, respectfully submit to the Members, their Report of the progress of the Institution, during the past year.

In this Report, your Council will state such facts as may appear to be necessary to a connected history of the Institution, and offer such suggestions as may seem important to its future management.

In the first place, however, they deem it advisable to give a short and general *résumé* of the history of the Society since its foundation, so as to prove of interest to the members generally — more especially to those who have lately joined the Society; and for this purpose, they avail themselves largely of the industry of a former President of this Society — Major Lachlan.

The Natural History Society was founded in the year 1827, — its first patron being the Earl of Dalhousie, and its first president, Stephen Sewell, Esq.

It was incorporated by an Act of the Provincial Parliament, (12 Will. IV. c. 15.) in 1832, which received the Royal Sanction in February, 1833.

At its foundation it numbered 26 members, of whom only one is now connected with the Society, namely, Dr. Holmes, to whom we owe the catalogue of our mineralogical and geological cabinet.

At the date of its incorporation there were about 100 ordinary members, of whom about thirteen are still connected with the Institution.

In 1835, it was proposed to have essays read before the Society "On the physical history of Rivers in general and the St. Lawrence in particular," and "On the circumstances affecting climate in general and Canada in particular."

In 1836, the Society purchased its present residence; and subsequently many valuable donations were made to the Museum and Library.

Circulars were addressed to the various corresponding members and to the Governor of the Hudson's Bay Territory, inviting attention to the subject of Meteorology in British North America.

To the Council of the same year is due the honour of having first drawn the attention of Government, to the advantages calculated to result from a Geological survey of the Province.

By an ordinance of 1841, the Government contemplated the merging of this Society, the Mechanics' Institute, and Montreal Library, into one Institution, to be called "The Montreal Institution of Literature, Science and Art," having its site in the Bonsecours Market Building, with the privilege of an annual donation of £300 from the city. But this comprehensive Scheme was never carried into effect.

In 1845, the Rev. Mr. Somerville laid the foundation for a regular course of lectures before the Society by a generous donation of £1000.

In 1846, the Museum was thrown open to the public at a trifling charge.

During the following year, under the patronage of Lord Elgin, it was resolved to publish such approved Essays as were in possession of the Society.

The fee for life membership, which had been £10 up to this time, was now reduced to £5.

In 1848, it was proposed to grant three medals for the best Essays on subjects connected with natural history. The number of members this year was 144.

The past year has not been unproductive of benefit. The Society's building has undergone complete repair; the roof has been newly covered; the Library and Council room have been transformed into a large and handsome apartment. The lecture room has undergone transition from a small room on the ground

floor, to a spacious Hall on the third story of the building, which is disposed with great advantage to both lecturer and audience, whilst around the walls are a series of spaces for the reception of stuffed animals, glass cases, &c.

These improvements have been effected under the able superintendence of George Brown, Esq. They have occasioned a considerable addition to the usual annual expenses, and it was in consequence found necessary to effect a loan of £400, for three years, at six per cent.

The Edifice is now better suited to the purposes which it is intended. The first story consists of two rooms, one of which is devoted to the library, and the other to the geological department. The second story is divided into two spaces, one occupied by the ornithological collection, the other by the entomological department.

The third story forms the new lecture room capable of comfortably seating 250 persons.

The Council have the pleasure of announcing a larger increase to the list of members than usual, there being no less than seven corresponding and twenty-one ordinary ones during the year, making a total of 165 active members.

The losses by death and other causes, since the last annual meeting, though not numerous, have been severely felt; and your Council are sorry to include the name of one of their former presidents—the late Dr. Crawford, whose zeal has in no small degree contributed to the advancement of our Society's interest; and by whose liberality the Museum has been enriched with many of its valuable specimens.

They regret to be called upon to record the demise of the Rev. Zadock Thompson of Burlington, Vermont, a corresponding member of the Society, and the departure from among them of Lieut.-General W. Rowan for England. We have still however the benefit of his assistance as a corresponding member of the Society.

With these exceptions there is little in the form of loss to record.

The Annual Course of Lectures delivered under the auspices of the Society commenced on Tuesday the 12th day of February of the present year, and were unusually successful.

The introductory lecture was given by His Lordship the Anglican Bishop of Montreal, President of the Society; subject—"The connection between Literature and Science—with some general remarks upon the study of Natural History."

The course was continued in the following order:—

February 27th. By J. W. Dawson, F. G. S., Principal of

McGill College; Subject—"Physical Geography of the Lower Provinces."

March 4th. By James Barnston, M. D.; Subject—"Coleridge's Philosophy of Life."

March 11th. By W. H. Hingston, M. D.; Subject—"Circulation of the Blood."

March 18th. By Ass.-Com.-Gen. Ibbetson; Subject—"Entomology."

April 8th. Concluding lecture, by B. Workman, M. D.; Subject—"Wonders of Geology,"

The Council are deeply indebted to these Gentlemen for their very able efforts in their favour. They congratulate the Society on the large attendance at these lectures, and the increased interest manifested in them. Your Council trust, that, during the ensuing year, the regular course of lectures will comprehend a still larger number; and recommend that an essay be read and discussed at every monthly meeting of the Society, with the view to render these more instructive and interesting, and to ensure a large attendance of members and visitors.

The By-Laws of the Society have been submitted to a committee of revision pursuant to a resolution of the Society on the subject; and are shortly to be printed.

Agreeably with the desire of the Canadian Institute of Toronto, to be furnished with the monthly reports of the proceedings of this Society, the necessary matter has been forwarded and published in the "Canadian Journal."

In accordance with the recommendation contained in the last Annual Report, our patron, Sir Edmund Walker Head, has been duly elected an honorary member.

The Council beg to submit the names of their retiring President, His Lordship the Anglican Bishop of Montreal, Sir Wm. Edmond Logan and Charles Smallwood, M. D., L. L. D., as justly meriting a like honour.

The Council have much pleasure in stating that during the month of March last, a committee of the three Vice Presidents and four other members, in company with a few gentlemen interested in Meteorological science, visited the Observatory of Charles Smallwood, M. D., L. L. D., at St. Martin's Isle Jesus, C. E., and a report on the subject of that gentleman's valuable and extended labors was laid before the Society and ordered to be published.

Your Council subsequently forwarded a petition to Parliament praying for such assistance as would enable Dr. Smallwood to publish the records which he has made for the last fifteen years, and to continue the prosecution of his investigations. (The

project of establishing an observatory in Montreal or its neighbourhood was included in the same prayer.)

If to such observations were added an analysis by some member of the society, of those already made, a very valuable amount of information would be furnished to meteorological science.

In this brief general *résumé* your Council find sufficient reason to feel, on the whole, satisfied with the struggles of a Society like this placed by its very nature, so far in advance of our crude national state.

There is sufficient ability in our Society at the present time to raise it to the very proudest rank of literary excellence ; and all we need is merely to effect a proper distribution of our forces.

For this end your Council would recommend such a division of the members of the Society into committees on the following subjects, as one of its members has already submitted, namely :

1st.—Botany.

2nd.—Ichthyology, Herpetology and Entomology.

3rd.—Ornithology.

4th.—Other departments of Zoology.

5th.—Geology, Mineralogy and Conchology.

6th.—Comparative Anatomy and Physiology.

7th.—Indian Curiosities, Antiquities, and Miscellanies.

8th.—Library.

Your Council are of opinion that it would be to the Society's advantage, to make a careful distribution of duplicate specimens in the Museum among Institutions of a kindred nature within and beyond the Province. The act would no doubt be cordially reciprocated, and the Museum enriched thereby.

It is also thought advisable to petition the Legislature for a copy-right Law, making it compulsory on all Publishers to contribute a copy of every publication to the several literary and scientific Institutions of the Province. In the mean time members are not denied the privilege of contributing to the Library and Museum ; a privilege most cheerfully accorded likewise to the public.

For a more complete account of the condition and prospects of the Finance, Library, Museum and Collections, you are referred to the accompanying reports of the Treasurer and of the Librarian and Cabinet Keeper.

In conclusion, your Council, taking a retrospective glance at the proceedings of the past year have every reason to hope that the Society has merged *pour toujours* from that anomalous position — so little in harmony with the objects of its founders, and in surrendering their trust into other hands they would beg to accompany it with the hope that the Natural History Society, — established to encourage the study and investigation of the

varied and ever varying physical phenomena of our Country, — possessing a Library which embraces one of the best collections of valuable works pertaining to all branches of positive knowledge in this country; and a museum containing an extensive and varied collection of objects of Natural History — which the liberality of the Members has thrown open to the public free of charge — may meet with even greater success, and obtain that liberal support from its members and the public to which it is justly entitled.

L. A. HUGUET LATOUR,

1st Vice-President.

Montreal, 19th May, 1856.

The Treasurer of the Society (B. Workman, M.D.) then read the following account and statement :

Dr. Natural History Society in Account with Benjamin Workman, Treasurer. Cr.

| 1856. | | | | 1855. | | | |
|--------|----|------------------------|--------------------|---------|----|--|-------------------|
| May 1, | To | Cash paid Salaries | - - - - - £ 40 0 0 | May 17, | By | Balance in Treasurer's hand | - - - - - £ 1 3 9 |
| " | " | Fuel | - - - - - 26 19 4 | 1856. | | | |
| " | " | Gas | - - - - - 3 17 9 | May 1, | " | Subscriptions, & Diplomas, received fees | |
| " | " | Water | - - - - - 3 0 0 | | | to this date | - - - - - 65 5 0 |
| " | " | Freights | - - - - - 1 8 11 | | | Government Grant | - - - - - 50 0 0 |
| " | " | Postages | - - - - - 2 3 | | | Cash borrowed on Mortgage | - - - - - 400 0 0 |
| " | " | Printing | - - - - - 23 12 9 | " | " | Interest at Montreal Savings Bank | - - - - - 2 9 4 |
| " | " | Advertising | - - - - - 6 15 7 | | | City & District " | - - - - - 1 15 0 |
| " | " | Interest | - - - - - 8 5 3 | | | | |
| " | " | Commissions | - - - - - 2 16 6 | | | | |
| " | " | Repairs | - - - - - 300 0 0 | | | | |
| " | " | Insurance | - - - - - 25 0 0 | | | | |
| " | " | Incidentals | - - - - - 27 0 5½ | | | | |
| | | Balance to New Account | - - - - - 51 14 3½ | | | | |
| | | | £520 13 1 | | | | £520 13 1 |

E. and O. E. B. WORKMAN,
Treasurer.

Examined and found correct,
W. H. A. DAVIES.

REMARKS.

The Treasurer in submitting his Annual Account Current, would append thereto the following remarks, viz:—

ESTIMATE OF EXPENDITURE FOR 1856-7.

| | |
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| Balance yet due Contractor for repairs..... | £ 72 16 0 |
| Required to complete Repairs, say..... | 75 0 0 |
| Salaries..... | 40 0 0 |
| Interest..... | 30 0 0 |
| Outstanding Accounts for articles purchased for repairs, but of which purchases Ac- counts have not yet been rendered..... | 15 0 0 |
| Chairs & Table..... | 20 0 0 |
| Paper & Paperhanging..... | 5 0 0 |
| Fuel and Light..... | 30 0 0 |
| Incidental Expences..... | 25 0 0 |
| | <hr/> |
| Estimated Amount required for 1856-7..... | £312 16 0 |

RESOURCES.

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| In Treasurers' hands..... | £51 14 3½ |
| Subscriptions..... | 75 0 0 |
| Interest at the Savings Bank, say..... | 1 5 8½ |
| Government Grant..... | 50 0 0 |
| | <hr/> |
| | 178 0 0 |
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| Estimated Deficit..... | £134 16 0 |

BENJAMIN WORKMAN,

Treasurer.

Montreal, 1st May, 1856.

P.S.—This statement will shew that the change of the Annual subscriptions from Ten Shillings to Twenty Shillings has been advantageous to the Finances of the Society, viz:

| | |
|---|----------|
| Subscriptions and Diplomas in 1855-6 produce..... | £ 65 5 0 |
| Do. Do. 1854-5..... | 34 5 0 |
| | <hr/> |
| Gain..... | £ 31 0 0 |

Upon motion by Mr. Dutton seconded by Rev. A. D. Campbell, the Report as read was received and adopted, and ordered to be printed and circulated, and the Lord Bishop of Montreal, Sir Wm. Logan, Knight, F. R. S., F. G. S., L. L. D., &c., &c., and Charles Smallwood, M.D., L. L. D., were by acclamation elected Honorary Members.

Drs. Fraser and Barnston having been appointed Scrutineers, the Meeting then proceeded to Ballot for Office Bearers for the current year; when the following were declared elected:

President.....MR. PRINCIPAL DAWSON.
First Vice-President.....L. A. H. LATOUR, ESQ.
Second Vice-President.....W. H. A. DAVIES, ESQ.
Third Vice-President.....REV. A. D. CAMPBELL, M. A.
Treasurer.....DR. WORKMAN.
Cor. Secretary.....DR. HINGSTON.
Rec. Secretary.....A. N. RENNIE, ESQ.
Curator and Librarian.....DR. BARNSTON.
Council....REV. CANON LEACH, D.C. L.; REV. A. KEMP; DR.
 R. P. HOWARD; J. T. DUTTON, ESQ.; DR. FRASER.
Library Committee.....DR. MCCALLUM; DR. JONES; DR.
 WRIGHT; DR. SCOTT; REV. CANON GILSON, M.A.

Upon motion of Dr. Workman, seconded by Dr. Scott, a cordial vote of thanks was passed to the Lord Bishop of Montreal for his kindness in having consented to fill the President's chair, the able and zealous manner in which he had discharged the duties of his office during the past year, and the exertions he had made in the cause of science, in extending the sphere of operations of the Society, and adding to its list of members.

The meeting then adjourned.

PROCEEDINGS AT THE SOIREE.

ON Tuesday evening, the 20th May, 1856, the members of the Society gave a Soiree in honor of Sir Wm. E. Logan, one of its members, which was numerous and fashionably attended. Upwards of 150 ladies and gentlemen, the *élite* of the city and neighborhood, were present, and the proceedings of the evening were listened to with the deepest interest and attention. At half past seven o'clock precisely, the Lord Bishop of Montreal, accompanied by the guest of the evening, and the Council of the Society, entered the Lecture Room, and took their places. The Bishop was supported on the left by J. W. Dawson, Esq., Principal of McGill College, and President elect of the Society. The Meeting was opened by his Lordship calling on Mr. Rennie, the Secretary, to read the minutes of the Annual Meeting and Report of Council. This having been done, his Lordship said, — It is now my pleasing duty to read and present to Sir Wm. Logan, our honored guest, the following address from the Natural History Society :—

To Sir William Edmund Logan, Knight, F. R. S., F. G. S., L. L. D., &c., &c., Chevalier of the Legion of Honor, Director of the Geological Survey of Canada.

SIR, — It is with feelings of sincere pleasure mingled with no small degree of pride that we, the President and Members of the Natural History Society of Montreal, welcome you as our guest on the present occasion. We have invited you here this evening, not merely from a sense of duty, nor in consideration of the honor your presence would confer upon us, but likewise for the purpose of testifying publicly the interest which we, as a Scientific Institution, have always taken in your indefatigable labours to advance the cause of Geological Science in Canada. It is for this latter reason, that the opportunity now presented of acknowledging your valuable services, both to Science and our country, affords us unfeigned gratification. As Director of the Geological Survey of this Province, you have laboured for a long series of years with unremitting zeal and assiduity, and if your untiring efforts have surmounted the many difficulties of a scheme, in its nature so extensive and gigantic, and have at length met with that success to which they are so justly entitled, we rejoice to think that the rewards so honorably gained have been acquired by one whom Canada claims, not only as her brightest ornament in Science, but as her honored and cherished son.

Limited as have been the means hitherto placed at your disposal in order to carry out your investigations, you have nevertheless, by skilful economy and at much personal sacrifice, succeeded in bringing to light the valuable internal resources of our country, and of raising our Province to that high and important position

which it now holds in foreign estimation. That the Provincial Legislature has appreciated your past labors, and is convinced of the necessity of continuing the noble work under your guidance, is abundantly proved by the munificent grant of the present session towards the Geological Survey, and we believe this is but the echo of the mind of an intelligent public.

Your unwearied efforts when in London and Paris, on two memorable occasions, have been acknowledged in a manner which must be very gratifying to you; and while we congratulate you upon the high honors received at the hands of our Most Gracious Queen and of his august Majesty the Emperor of the French, we are no less rejoiced to know that Science, from its loftiest throne, has not omitted to present to you its highest tributes of praise, and its rarest token of reward, in acknowledgment of your valuable researches and discoveries in one of its most important departments. The value of such honors can only be measured by the severe toils and hardships of those mental and bodily labors which have so happily gained them; and our humble prayer is, that you may long live to enjoy these rewards, and continue to prosecute those researches, which will prove lasting memorials of your talents and perseverance, and be of permanent benefit to the country.

In thus tendering you our hearty congratulations, we beg respectfully to present you with the highest mark of esteem and recognition our Society can bestow, namely, the Diploma of Honorary Member of the Natural History Society of Montreal.

(Signed)

F. MONTREAL,
President.

A. N. RENNIE,
Rec.-Secretary.

Montreal, May 20, 1856.

SIR WM. LOGAN said,—My Lord, Ladies and Gentlemen, I have to return your Lordship and the members of the Natural History Society my sincere thanks for the very flattering address you have just read, and the honor you have done me, in bestowing the highest mark of your esteem and approbation upon me, by presenting me with the diploma of an Honorary Member of the Society. The marks of distinction which have been bestowed upon me, as the fruits of my labors connected with the Geological Survey of Canada, are no doubt highly appreciated by me—both those from the hands of the Queen of England, and the Emperor of France, and those of the learned of both countries. And though the marks of your consideration, my Lord, come after them, and are perhaps in part given to me in consequence of them, yet I do not on that account esteem them the less; for I have a grateful remembrance of the satisfaction with which many years ago, when residing in England, I received the diploma of a corresponding member of this Society, and that, before I had given to the public any geological researches worthy of notice (applause.) I was happy, my Lord, to receive that diploma from the hands of my old master, Mr.

Skakel, to whose instructions I am indebted for the first rudiments I obtained of some of those exact sciences connected with that branch of geology which I have since more especially pursued (applause.) I cannot forget, also, that though ten years before the establishment of the geological survey, many worthy and enlightened persons both in and out of parliament, had endeavoured to induce government to grant their aid in the investigation of our mineral resources, yet it was only in the time of Lord Sydenham, when petitions had been forwarded from the Natural History Society of Montreal, and the Literary and Historical Society of Quebec, the former presented by Mr. Holmes, and the latter by Mr. Black—it was only then that the Hon. Mr. Harrison was induced to recommend to the government the first grant bestowed upon the geological survey [cheers.] In this way, the act of this Society has, in some degree, been the cause of my opportunity; and on being elected a Fellow of the Royal Society of England, it was with great satisfaction that in enrolling myself among its members, I designated myself as a member of the Natural History Society of Montreal [cheers.] It has been a source of great satisfaction to me, that there has never yet been a single dissentient voice raised against the support given to the geological survey of the Province. The position in which the liberality of the Legislature, and the good will of the community has at present placed the survey, is a worthy object of congratulation, and will enable me to extend its usefulness. It will give me an opportunity of publishing a map of the Geology of Canada, so far as it is known—similar to that published and exhibited in France. It will, by means of illustrations, enable me to make our annual reports much more intelligible than hitherto, and afford me the means of attracting much attention to science in Canada, by publishing those new organic forms which may be found in a fossil state, while prosecuting our studies [applause.] Of these still unrepresented forms, a large collection has already been made, many of them of great interest. And in classifying and describing them I hope to have the occasional assistance of Professor Hall, Palæontologist of the State of New York, and to secure the permanent aid of Mr. Billings, of Ottawa, who has recently shown so much attachment to the science, and such an anxious desire to promote its diffusion. And I am sure, my Lord, I shall never find wanting the advice and assistance, or when his occupations will permit, the active co-operation of a distinguished member of your Society—Mr. Principal Dawson—whose researches in geology are so well and so favorably known, and whose advent among us I consider a great and sure benefit to the advance of Canadian science [loud cheers.]

His Lordship then said, it now only remains for me to quit the Presidential Chair, and the Office which, as far as I have been able, I have endeavoured to make efficient for the Society's objects, during the last twelve months. And while I look back with no small satisfaction to the efforts which have been so successfully made during the past year, by several members of this Society for the promotion of its efficiency, and the advancement of Natural Science, I cannot but rejoice that I shall close this my year of office with so graceful and appropriate an act, as the presentation of this address to Sir Wm. Logan, giv-

ing him a hearty welcome amongst us. I could have wished that it had been compatible with his other duties for him to have acceded to the request made to him on behalf of a large number of the members of the Society; and that he could have given us the aid of his counsel, and the strength of his name, if chosen as our next President. But the important business connected with the Geological Survey of the Province, which is about to be renewed under his superintendence, will make such demands upon his time and attention, and cause him to be so constantly absent from Montreal, that he informed us he would be obliged to decline the office, if it were offered him. But I feel sure that he will at all times be ready to give us his best advice and co-operation, as far as circumstances will permit; and possessing as he now does, so high a reputation for scientific knowledge—a reputation not confined to this Province or this hemisphere—he will be no small aid in promoting the efforts, which this society is now making, to place itself in connection with other learned bodies and professors of Natural Science in all parts of the world. The improvements in these premises, for the purpose of rendering them better adapted for the Society; the classified distribution of subjects, alluded to in the Report, to be made the special objects of investigation by different members in some regular order and system; and the large increase of members during the past year, lead us to hope that the forthcoming year will neither be unproductive in satisfactory results, nor uninteresting in its details; and while we trust that there will be, at the Meetings of the Society and in its Lectures enough of the popular element to attract the many, there will be also such enquires prosecuted, and advances made, as shall give evidence, that there are amongst us, some minds imbued with a true spirit of philosophy, and an ardent zeal for Natural Science. And this study is of great importance, indeed necessary, not only for the reputation of any country, but to enable it to compete with other parts of the world, and protect itself from injustice and fraud. It is only a few days since, I read in the evidence given in London before the Committee of the House of Commons on the adulteration of Food, &c., that “a large drug grinder and manufacturing Chemist” stated that it was his belief that Rhubarb was universally ground pure. He believed it was true that there was some English Rhubarb mixed with the pure to be ground; but it was chiefly for Ireland and the Colonies.” But why should the impure article be sent into the Colonial market rather than the London one, except it be that it is concluded the fraud will not be so easily detected; because Botany and Chemistry are not believed to be so actively or generally studied there, as in England? And not now to speak of “the wonders of Geology,” on which subject many of us heard very recently a most interesting lecture in this room; or of the stupendous revelations which modern Astronomical Science has opened for the adoring contemplation of men, whereby, “in our day, indeed, within these few years, the scope of the material universe visible to man, has through Lord Rosse’s great telescope been enlarged, as it is computed, no less than 125,000,000 times, and has brought to our view stars, worlds, systems, without number,

whose existence had scarcely been suspected before.” Without enlarging upon facts like these, I will only observe, that there is no branch of trade or commerce, scarcely any amusement or means of sustaining life, where, in some way or other, scientific knowledge and scientific investigation will not be most essential to our comfort, our progress and our success. Many branches also of science necessarily require simultaneous investigation and experiments to be made, in a variety of places at the same time, in order, by general induction, to arrive at any definite conclusion; particularly, for instance, those connected with Meteorology. So that every fresh location of a well-ordered observatory, and every fresh record of any Philosophical observer, is a help towards perfecting the experiments and observations of all.

But I will not detain you any longer with more lengthened observations of mine on this occasion, when there are other and better means devised for your instruction and entertainment this evening. And since I believe it is an admitted fact that “nature abhors a vacuum,” that every space within the bounds of creation, when relieved from the occupation of any one substance or portion of matter, must immediately be taken possession of by some body of some kind or other that immediately fills up the void, so it is with this our Society. True to the laws of Nature, this our “Natural History Society” has provided that on my leaving this chair, there shall be no vacancy unoccupied — for our Society in this respect, like Nature, abhors a vacuum; but it will be immediately filled by my successor, and one far more able than I can pretend to have been, to do justice to the office, and add strength and reputation, by his own scientific knowledge, to the position which he has been elected to fill. I have now only, therefore, to take my leave of you, as your President, to thank the various officers of the Society, and other members, for the kindness and attention I have received from them, and to introduce to you Mr. Dawson, F.G.S., and Principal of McGill College in this city, as the President of the “Natural History Society of Montreal,” for the ensuing year. (Loud cheers.)

His Lordship then left the Chair, which having been taken by Principal Dawson, he rose and said, — I regard as a very high honor, the position in which I have been placed. I look upon it as a tribute not to myself, but to the subjects of scientific investigation to which I have devoted myself. And I hope and trust that the place of President of the Natural History Society will not during my incumbency be found a vacuum; at least, it shall not be want of exertion or pains on my part, if it be. But on referring to the programme I find that I am not now to make a speech, but to announce to you what perhaps you will listen to with more pleasure, that in about twenty minutes from this time refreshments will be on the table below, and that until then we shall adjourn and inspect the collection of specimens and curiosities in the other apartments; or view the wonders and beauties of Nature through the Microscopes which Dr. Barnston and others have provided for our amusement and instruction.

The company then adjourned below, and examined with the greatest interest the collection in the Museum. Dr. Barnston and Mr. E. Murphy had three

powerful Microscopes on the table which attracted numbers of the fair visitors, and many of the gentlemen. The refreshments were prepared in the Library by Mr. Alexander, of Notre Dame Street. After an adjournment of about three quarters of an hour, business was again proceeded with in the Lecture Room.

The President (Mr. Principal Dawson) took the Chair and said :—

LADIES AND GENTLEMEN,—It is not my intention to deliver a formal address, but merely to bring before you, perhaps in a somewhat desultory manner, a few thoughts that have occurred to me as suitable to a social meeting of this kind ; and at the same time, having some bearing on the functions and policy of this Society. And in the first place, I would remind you that Science does not always appear, as on the present occasion, in holiday attire ; nor does it confine itself to the lecture room or the library ; but that it often toils severely and imposes on itself hard fare and self-sacrifice. It scales every mountain, gropes in every mine, toils through every wilderness, boils its camp kettle by all streams, pores over the minutest objects, anatomises the least agreeable creatures, stifles itself in laboratory fumes, breaks stones like a road maker, and carries loads like a porter. In short, when you see the scientific man in his working garb, you may well be pardoned for supposing, as a kind old lady once remarked of a Scottish geologist, that he looks like one “ who has seen better days.”

The true naturalist, animated by that enthusiasm which alone can furnish an adequate incentive to the work, delights in such labours, and combines them with the eager search for great general principles and natural laws. Such men must form the basis of a society like this. Without them there may be meetings and agreeable small talk, but no progress in original investigation. To such men, on the other hand, a scientific association offers great benefits. It gives them that encouragement which they often require ; it gives them means of investigation which, individually, they could not command ; it gives them influence by their union with one another, and with men who value science, though they may not themselves labour in its advancement as original enquirers. Above all, it gives opportunities for friendly discussion. Isolated enquirers, especially in a new country, where few can devote themselves wholly to scientific pursuits, are very liable to be satisfied with half truths, which are near akin to error, or to enter on unprofitable paths of enquiry. But if they bring their results before a society like this, they are subjected to the criticism of others who may have had superior opportunities of investigation, or who, from the same facts, may have reached conclusions in some respects different. Free discussion of this kind is the life of science : and however hardly the author of a paper may be dealt with, if he is a true lover of truth, he feels satisfied that to have all defects and errors thoroughly exposed is best, not only for the interests of science, but for his own ultimate reputation.

To such free and fearless criticism every paper, however high the reputation of its author, must be subjected in a scientific society ; because the object is not to uphold any preconceived views, but to arrive at the pure and simple

truth. Many persons present must have read in the last of the late Edward Forbes's lighter productions, his review of Murchison's *Siluria*, the comparison of the discussions of the Geological Society, so fierce in their progress, yet so friendly in their issue, with the carousals of the deified heroes in the Scandinavian Valhalla, where the fabled gods of our ancestors were supposed, after their feasts, to hack and cut each other to pieces, only that by the vigour of their immortal nature, each fragment might be immediately restored to its fellow, and all reappear sound and unhurt. You may also remember the anecdote, in the same paper, of a military gentleman, who having been present at one of these disputatious meetings, retired somewhat precipitately, under the conviction that if he remained he would infallibly be called on to act as second in some of the affairs of honour which must grow out of the discussion. The Report read this evening asks for original Papers, and I trust that we shall discuss them with this combination of the earnest love of truth with the most perfect good humour.

This Society may also render an important service to Science in Canada and elsewhere, by publishing such papers as may endure the test of its criticism. Hitherto, the Society has done comparatively little in this direction, while many British American papers have been published abroad; but if good papers be furnished, little difficulty will be found in having them printed, and widely circulated.

Another important function of this Society is, that of forming a depot for all interesting objects of Natural History; and thus rendering them accessible to those who can appreciate their value; and at the same time affording facilities to Students. In this valuable department, this Society has done much, and we may hope will do much more.

It is also one of the functions of a Scientific Society to exert itself to popularize science in such a way as to extend its humanising influences, to make it generally attractive, and to enlist new workers in its varied fields of investigation. The success of the lectures of the past winter should encourage us to make still more energetic efforts in this direction in future.

Lastly, allow me to say, that though abstract science is our proper field, we regard it also in its utilitarian ends, and in its highest and holiest relations. This society has already, on several occasions, successfully labored in the development of the industrial resources of this country; and, more or less, all its labours tend in that direction. An excellent illustration of the utility of apparently small matters in science, lies before me in these beautiful engravings of Canadian fossils, which are exhibited by Sir W. E. Logan, as a specimen of the style in which he desires to publish the new forms of organic life, discovered in the course of the survey; and which, if so published, will greatly extend the scientific reputation of Canada. It may appear of little consequence that in ages far bygone, certain little shell-fish, distinguishable from each other only by minute and sometimes almost microscopic characters, lived in this country and have left their remains in its rocks; yet by the study of these ex-

inct forms of life, that arrangement of the rocks of the country which is necessary to the understanding of its mineral resources, may be accomplished in much shorter time and with far greater certainty than without their aid; and thus years of labour to the survey, and of expense to the Province, may be saved.

In like manner Natural Science, in all its departments, connects itself with our higher spiritual relations, by refining and ennobling our minds, and by leading us from nature to its Divine Author. It is true that Natural History is in itself merely intellectual; it is not to be identified with either morality or religion, and is sometimes unhappily dissociated from them, yet it is akin to these higher interests. Like the sunlight, it shines on the evil and the good, and may sometimes light a bad man in the path of crime; but in its natural and its general consequences it is allied to good, and has no affinity with those social and moral evils which emphatically belong to the darkness.

Actuated by such views, and following out these paths of usefulness, I trust that our Society may steadily prosper; and as a favourable omen of our success in the ensuing year, it gives me much pleasure to state that our active and zealous Vice-President, Mr. Latour, has announced his intention of offering a gold medal for the best Essay on any Department of Canadian Natural History, to be read at the concluding meeting of next Session.

The Hon. JUDGE AYLWIN being called upon by the President, said:—

Ladies and Gentlemen,—I should not undertake to address this meeting, if I understood that any thing I was to say should be connected with any one of the natural sciences. I must confess my utter ignorance of all the *ologies*—I am sorry to be obliged to confess my entire ignorance of geology. But just because of this, I can better appreciate the efforts of others, in founding an institution like the present, and contributing, by the accumulation of facts, to our present stock of knowledge. Facts, Ladies and Gentlemen, are always important. There is knowledge in stones, as there is knowledge of a higher kind. But without the knowledge of the art of reasoning all would be unavailing. And a man's reasoning may be faulty in the extreme, and calculated to mislead others; but if in his study of nature, and the observations he makes in the course of that study, he chooses to state merely facts, and state them truly,—whatever efforts he may make to mislead, the result must be necessarily unavailing, for the Baconian Philosophy controls and overrides all *ologies*.

The infidel Voltaire, boldly assumed to be an encyclopedia to himself; and, in the pride of his supposed science, to put down religion and its Divine Founder; but his puny efforts have long since been scouted by genuine philosophers. Others have attempted to follow in the same career, and will have the like success; for notwithstanding all the apprehensions created in timorous minds, the votaries of science work on, and the more they work on, the result is found to be only to confirm us the more, if ever a doubt we had, of the existence of a Creator and Redeemer. As to the advantages to be derived from institutions such as the present, I cannot flatter myself that here any very brilliant results will be obtained. But we have the power to accumulate fact after

fact, and so to state them, as to enable others by analysis to arrive at results useful to themselves and to the world. I am satisfied this institution has not languished in consequence of want of effort on the part of its members. It is no reason for discouragement that in every point of view it has not been so successful as its best friends could have wished. On the contrary it should induce the members to use greater efforts for the time to come. There is more expected from us now than ever there was before. I recollect the time when no man would have dared to admit he was a Canadian—or the admission would have been made with pain. Now we are proud to own our country; and not a little flattered at its progress and prosperity. And we have reason to be proud of our fellow townsman, Sir Wm. Logan, of the position he occupies, the fame he has attained. When he first commenced his scientific investigations, he could scarcely himself have hoped for such a result; for the very science in which he has now attained so much eminence, in its infancy, was rather disliked than otherwise. He might have entered the walks of trade and commerce, and therein attained to opulence or wealth. He might have attached himself to any one of the learned Professions, and no doubt, with his love of study, and habits of thought, he would therein have obtained eminence and distinction. But for the love of the science alone, he probably entered upon its investigation; and by this desire to investigate facts and accumulate them he has probably attained his well-earned honors in the way he least expected. And there is this to be said of Sir Wm. Logan. He has received these honors by universal assent. The honors conferred on him at Home have been confirmed by the unanimous voice of his fellow Colonists. [Cheers.]

It would be trespassing on the time of the meeting were I to make further observations. But I cannot conclude without congratulating the society on the acquisition which it made by electing the Bishop as President. His Lordship is not a Canadian born; but we must not draw invidious comparisons between the natives of this country, and those who possess the same claim as ourselves, acknowledging and loving the same Queen. To his energy and wise judgment Montreal is already indebted in many respects; and the members of the Society had never done a better act than when they appointed him to the highest office they had it in their power to bestow. I have no doubt that he will not be a stranger among us; that he will very shortly be thoroughly naturalized, and sympathise with us more strongly than any one who newly came from that England, which my grandfather left a century ago, and which I may be destined never to see. Let it be the object of this society, then, to accumulate facts, and though I shall be proud to see that science shall be directly benefitted thereby, as I have already said I can hardly expect, so limited is our sphere of investigation, that this will be the result. The persevering efforts of your new President are well known, and by a continuance of them, he will be enabled to arrive at conclusions, confirming others in the opinions they have formed, or striking out a new and better path for himself—(cheers.)

Dr. Barnston then read the following Paper :—

ON SOME OF THE FORMS OF SNOW CRYSTALS AND THE DIFFERENT ELECTRICAL STATES OF THE ATMOSPHERE DURING THEIR FORMATION. BY CHARLES SMALLWOOD, M.D., L.L.D.

In taking a cursory view of the objects that surround us, the most casual observer must be often impressed with the beauty and variety of the forms exhibited in the three vast Kingdoms of Nature—the Animal, Vegetable and Mineral; and upon a closer and more minute inspection, we are almost led to adopt the Platonic doctrine, that Deity proceeds by Geometry.

The types and forms of matter which are every moment brought before us, have led some few to trace their different shapes, to generalize their outward features, and to reduce, as it were, to a standard, the vast number of objects, organic as well as inorganic.

The Geologist has his primitive rock — the Naturalist his archtype skeleton—the Botanist his cell developement, all of which bear witness, that beneath the outward form there exists an unknown agency wielded by the Omnipotent Power of “Him who created all things.”

The subject of our present investigation is one of those meteors, which all of us living in Canada, have had many frequent opportunities of observing, if not of admiring; but few of us, I dare say, have taken the trouble to look into the minute and perfect Geometrical structure of the evanescent Snow Crystal, which presents as distinct a mathematical form of crystalization, as that which characterizes the more lasting and indestructible gem that bedecks the Regal Crown.

The subject has been the study of Aristotle, Descartes, Kepler, Scoresby and others, but I shall not dwell on their investigations, because made in a climate different from our own, but shall at once proceed to give the results of my own feeble and unmerited efforts, and by so doing endeavour to enlist others to labour in this, an interesting department of Meteorology.

For many years past my attention has been called to the different varieties of the snow crystals of our climate, which I found to depend upon well defined hexagonal or six-sided prisms, all the facets or angles of which have an inclination of 60 degrees. This constitutes the primitive form or type; and so far as my observation goes, a combination of discs and prisms, of this simple and primitive form, gives rise to those of a more elaborate character. (Specimens of the crystal were put in and explained.) There are many and various forms not here described; but those now enumerated form the type of the whole. Snow falling when the Thermometer is only a few degrees below the freezing point, does not possess any distinct crystalline form, being merely frozen masses, irregular in shape, and scarcely even transparent, but the greater the degree of cold, the more distinct and well defined are the crystals. The size of the perfect crystal is from 1 to 2 tenths of an inch, only in diameter, and who does not but admire the handy-work of that Almighty Power, that made in so small a space so beautiful and distinct a crystal, possessing a true mathematical

character, and what must be the immense numbers of these small bodies, that fall in the great snow storms of our Canadian winter, when we call to mind that during the winters 1854-5, no less than 86 inches deep of these small crystals fell.

“ A shower of gems is strew'd around ; ”
 The flowers of winter, rich and rare ;
 Rubies and sapphires deck the ground,
 “ The topaz, emerald, — all are there.”

But to obtain a perfect view of these crystals it is necessary to submit them to examination immediately after their fall, for if allowed to remain for ever so short a time, the angles become rounded, and it is then difficult to define their true and distinct characters.

Intimately connected with this subject, and one to which I would draw attention, are the different electrical states of the atmosphere, during the formation and fall of these crystals.

During my observations on the different crystalline forms, my attention was at an early period drawn to the fact, that whenever the forms Nos. 1, 2, 3 and 4 were present, the electrometers indicated the presence of *negative* or *resinous* electricity, especially during the fall of those crystals marked Nos. 1 and 2. On the other hand the *stellar* or *star form*, No. 5 and its varieties, were always accompanied by electricity of a *positive* or *vitreous* character; and I have found from observation that snow storms, when the crystals are of a perfect form, are always accompanied by indications of atmospheric electricity of a negative character and high intensity; but whenever the crystals are imperfect, or are shapeless masses of ice, presenting no crystalline form, then the electrometers indicate electricity of a positive character, and of very feeble intensity.

The question now is, do the different electrical states of the atmosphere give rise to those different forms of crystals, or does the formation of those crystals excite a different electrical state of the atmosphere?

I trust shortly to be able to lay before you a solution of those interesting and scientific questions, for in the pursuit of this object it requires patient and attentive investigation during the most inclement season of our rigorous climate; but how happy should I be if these short observations should be the incentive to others to assist in this interesting branch of scientific research, and that to Canada should be awarded the claim of the discovery.

The apparatus that I have used in these investigations for collecting and examining the electrical state of the atmosphere, consists of a pole 70 feet high, upon which is twisted a copper rod, the lower part of which is fixed on a glass pillar; this glass pillar is kept warm and dry by a small lamp to preserve insulation. At the other or upper extremity is a copper lantern, also containing a lamp, to keep a current of dry air around it; this forms the collecting apparatus, which is lowered when required, for the purpose of trimming the lamps. From this descends a conductor, to which are fixed measures, or what are called electrometers, for measuring the amount or intensity. Other instruments are also used for indicating its kind, whether *positive* or *negative*. Great care is re-

quired in the construction and use of this apparatus, as results fatal to life have sometimes occurred. The unfortunate Professor Richman was, on the 6th of August, 1753, at a meeting of the Academy of Sciences, when the sound of distant thunder caught his ear. He hastened with his artist to his observatory, and while intent upon examining the electrometers, a spark passed through his body, instantly depriving him of life. A red spot was found on his forehead, his shoe was burst open, and the door of the apartment was torn to pieces.

The method I have adopted to obtain enlarged outline copies of the snow crystal, consists in first throwing a magnified image either on photographic paper or by means of the common camera obscura. By this means the different angles may be measured and drawn out on paper. The copies now shown are obtained by the chromotype process, which consists in exposing to the sun for a few minutes paper prepared by washing with a solution of chromate of potash and sulphate of copper having the outline-drawing superimposed; it is then washed with a weak solution of nitrate of silver, and afterward with water, and then allowed to dry.

I have now only to express my regret at not being able to be present this evening; but circumstances, over which I have no control, have been the only cause of my absence; for it would have been to me a source of great pleasure to be *one with you*, to render honour to Sir William E. Logan, who, though tardily, has yet received that especial mark of her Majesty's favour, to which he was so well entitled, together with the approbation of the Emperor of France; and I feel that he will cherish these honors as an acknowledgment of his unwearied exertions in that laborious department of science to which he has devoted so many years of his life, and to which he has contributed so much. With a wish for his future prosperity, and for the prosperity of the Montreal Natural History Society, its office-bearers and members, I conclude this brief and imperfect sketch.

Dr. Holmes afterwards addressed the meeting at considerable length, sketching the History of the Society, of which he was an original member, since its formation, and dwelling upon his early friendship with Sir William Logan, and the many agreeable associations connected therewith.

And the President, in conclusion, thanked the ladies and gentlemen present for their attendance; and referred to some interesting points noticed in the several addresses—more especially to the place which Canada, and British America in general, might take in the department of original scientific investigation; glancing at the past and present progress of Canadian science, and anticipating still greater results in the future. He also noticed the remarks made on the subject of making science popular and attractive, and thanked Dr. Holmes for his observations on this subject, in which he expressed his cordial concurrence.

TWENTY-NINTH

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ANNUAL REPORT

OF THE

Natural History Society

OF MONTREAL,

DELIVERED BY THE LATE COUNCIL,

AND

READ AT THE MEETING OF THE SOCIETY,

18TH MAY, 1857.

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MONTREAL:

PRINTED BY JOHN LOVELL, ST. NICHOLAS STREET.
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TWENTY-NINTH

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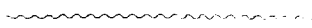
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FOR THE YEAR 1857-'58.

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ANNUAL REPORT

OF THE

NATURAL HISTORY SOCIETY.

The Annual General Meeting of this Society was held in the Museum, on Monday evening, the President, J. W. Dawson, Esq., F. G. S., in the Chair. The members present were the Lord Bishop of Montreal, Rev. A. Kemp, Rev. A. D. Campbell, Rev. A. DeSola, Dr. Fraser, Dr. Jones, Dr. Barnston, L. A. H. Latour, J. T. Dutton, H. Rose, J. H. Joseph, W. H. A. Davies, D. Robertson, J. Ferrier, jr., N. S. Whitney, R. Scott, E. Murphy, Dr. Howard, Dr. Hingston, Dr. Fenwick, B. Chamberlin, A. N. Rennie.

REPORT FOR 1857.

Your Council in submitting the annual Report of the proceedings and progress of the Society for the years 1856-7, find no difficulty in discharging this duty from lack of materials, as the subjects which have engaged their attention have been both numerous and important. Our predecessors rendered an important service to the Society, by their concise sketch of its history contained in the last report—a proceeding often necessary, in order

to mark out the progress of any public Institution, and to call the attention of its supporters to its first principles and objects. Your Council, therefore, feel that they cannot do better than take up the subject as they received it, and continue the narrative down to the present time.

The first subject which engaged the attention of the Society during the past year, was the appointment of a Committee to be its representative at the Annual Meeting of the American Association for the advancement of Science, held at Albany in the month of August last, and to solicit the selection of Montreal as the locality for the next annual assembly of that distinguished Society. A Committee was also appointed to consult with the City Corporation and with influential citizens to obtain their concurrence and assistance in accomplishing this purpose. Your Council have much pleasure in reporting that the labors of both Committees have been crowned with complete success. Your deputation was received with the utmost cordiality by the Association. Their invitation was unanimously accepted. The representatives of other cities, especially those of Baltimore, seeing the general desire of the Assembly to meet in Montreal, in the most honorable manner withdrew their claims for the time.

A large local Committee has been organised for the purpose of making the necessary arrangements for receiving and entertaining the Association, and is now actively engaged in this work. Influential private individuals have come forward to assist in various ways to facilitate and complete the arrangements necessary for this important undertaking. The Society's sister Institution in Toronto has also most honorably offered to co-operate with us in carrying the project to a successful issue. The Government and influential members of the Legislature have taken a deep interest in the matter, as likely to promote the progress of science in the Province, and have indicated their purpose to do what lies in their power to render this meeting popular and beneficial. Some of the Railroad and Ocean Steamship Companies have granted valuable assistance in the form of free passages to scientific gentlemen invited by the Local Committee from different quarters, to take part in the proceedings of the Association.

Your council anticipate from the respectability, efficiency and zeal of the Committee to which the American Association have intrusted the necessary preparations for their meeting in August next, that the result will largely contribute to the interests of this Society, by stimulating its future efforts in the cause of science. Your Council therefore feel that it is unnecessary for them to urge upon the members of this Society the necessity of cordial unanimity and zeal in their exertions to contribute to so desirable an object. The Council entertain a confident hope that the contemplated meeting of the American Association for the Advancement of Science will be as successful as any that has yet been held.

With a view to promote the efficiency of the Society, and in compliance with the recommendation of their predecessors, Committees were last year appointed for the purpose of arranging the collection in the Museum, and of furnishing original investigations and papers in their several departments. Your Council are happy to report that, so far, this arrangement has been productive of good results; among which they would specially mention a valuable paper from the Committee appointed to report upon the method of rearing fish from the ova, the recommendations of which they trust, will be carried out as soon as practicable.

The Society at its meetings in the early part of the year having also taken into consideration the state of its building, and deeming it unsuitable for the present wants of the institution, resolved to take measures for the erection of new premises if a suitable site could be procured. A Committee was accordingly appointed to make enquiries. From the report of that Committee it was found that a sufficient sum of money to purchase an eligible site and to erect a suitable edifice could not be obtained from the sale of the present property. Enquiry was therefore made whether the grant of a free site might not be obtained. As the result of this, your Council feel great pleasure in being able to report that the Governors of the McGill College have made a very handsome offer to the Committee, of a lot of land on University and Cathcart Streets, 90 feet by 50, on terms which are equivalent to a donation, and which the Committee reported as the most eligible site that could be obtained. Your Council, under

this impression, adopted the Report, and proceeded to make arrangements for the disposal of the present building, and the erection of a new one, hoping that this might be effected before the meeting of the American Association. Plans of a new building were accordingly prepared and submitted to a special Meeting of the Society. However it was found that the sum of £2000, for which the Council were authorized to dispose of the building, would not be sufficient for the purpose contemplated; it was, therefore, determined to raise £500 in addition, by private subscriptions, amongst the members and friends of the Society. Your Council are happy to report that £250 has already been subscribed, and they entertain a lively hope that the balance will be obtained by their successors so as to complete the work they have had the honor to commence. In order to obtain sufficient means to cover all the expenses of removal, and to enable the Society to open its new erection, with their Natural History collection arranged and perfected, your Council drew up, and presented through H. H. Whitney, Esq., M. P. P., a petition to Parliament, for a more liberal annual grant to the Society. They are happy to report, that their petition has been so far successful, and that a sum of £500 has been granted by Parliament to meet the extraordinary expenses of the Society on account of the approaching convention. Your Council further expect that should the decision of her Most Gracious Majesty in Council be that Montreal shall be the seat of the Provincial Government, property will so increase in value as to enable their successors to dispose of the premises to greater advantage than could be done at present, and thus enable them more fully to realize the wishes of the Society. In connection with the new erection, the Council recommend the establishment of an Observatory if at all practicable and if sufficient means can be got to maintain it. Your Council have to regret that the revision of the Constitution and Bye laws, which have been effected at the cost of much labor, yet waits the confirmation of the Members. They are, therefore, obliged to leave so important a work, in its unfinished state, to their successors. The Society has been favored with several valuable donations during the year, for which thanks have been conveyed to the donors.

The Council have great pleasure in announcing that there has been a large increase in the number of members—*eighteen* corresponding and *thirty* ordinary members having been elected during the past year. It is with regret that they are called upon to record the loss, by removal to Toronto, of Dr. Workman. His departure from the city has deprived the Council of a painstaking treasurer and a most efficient member, and the Society of one of its oldest and firmest supporters. They beg also to note that the services of Dr. Wright, Curator for a period of three years, in arranging the Museum and the Library, are worthy of the thanks of the Society.

The title of honorary member has been conferred upon the Lord Bishop of Montreal, Sir Wm. Logan, Knt., LL.D., F.R.S., F. G. S., Charles Smallwood, Esq., M.D., LL.D., F.M.S. &c. &c., Professor Mitchell, of Cincinnati, Professor Hall, Albany, Professor Dunglison, Philadelphia.

The course of lectures annually delivered under the auspices of the Society commenced on the 22nd January, and were remarkably well attended by the public generally.

- The Introductory Lecture was delivered by Principal Dawson.
 2nd Lecture—Thursday, 29th Jan.—by E. Billings, Esq. Subject:
 “The Geology of the Ottawa Region.”
 3rd Lecture—Thursday, 5th Feb.—By T. S. Hunt, Esq. Subject:
 “Natural History of the Alkalies.”
 4th Lecture—Thursday, 12th Feb.—By Rev. A. DeSola. Subject:
 “Scripture Zoology.”
 5th Lecture—Thursday, 19th March.—By Jas. Barnston, M. D.
 Subject.—“General view of Vegetable Life.”
 6th Lecture—J. P. Dutton, Esq. Subject: “Balæus Mysticus.”

The Council feel greatly indebted to those gentlemen for their valuable services on those occasions, and congratulate the Society on the interest taken in the lectures by the public. They hope that the next Course may be on a larger scale, held in a more convenient room, and attended by a still larger number of persons.

The Council regret that from various reasons they have not been able to carry out so fully as they could have wished the recommendation of their predecessors, to obtain the reading and

discussion of Monthly Essays or Papers, one paper only having been submitted; but they trust that the Meeting of the American Association and the greater facilities for acquiring a knowledge of Natural Science now enjoyed in this city, will have the good effect of calling forth greater scientific exertions in future.

The Council have much pleasure in reporting that L. A. H. Latour, Esq, 1st Vice-President, has during the year offered a Gold Medal as prize, for the best Essay in French or English on any subject of Canadian Natural History. They beg to recommend to their successors the appointment of a Committee to receive the Essays that may be offered, and to adjudge the Prize on the 1st August next. This measure, your Council trust, will call forth much latent talent, and advance the objects of the Society, while it rewards with honor the successful candidate, and realises the liberal and praiseworthy intentions of the donor.

Your Council also report that Mr. Billings, late of Ottawa, a Corresponding Member of the Society, having come to reside permanently in Montreal, has expressed a wish that the Society should take a part in the publication of "The Canadian Naturalist and Geologist," so successfully conducted by him during the past year. This offer was favorably received by the Society, and a Committee was formed to carry out this object and to open a subscription list for the issue of the second volume under the title of the "Canadian Naturalist and Geologist, and Transactions of the Natural History Society of Montreal." Another Committee was appointed to superintend its publication, of which Mr. Billings himself undertakes a part. Your Council are happy to say a first number has been printed under very auspicious circumstances, and they trust that this undertaking will meet with complete success.

Your Council have not considered it prudent at present to solicit from the Legislature a Copy Right Law, to compel publishers to contribute a copy of every publication to the several Literary and Scientific Institutions of the Province. The law as regards copyright is yet in an undecided and unsettled state, and they recommend that the matter receive the consideration of their successors.

The Council are sorry to announce that Mr. Broome, so long the Janitor of the Society, died after a brief illness a few months ago, and they have from various considerations deemed it proper for the present, to continue the services of his widow, as keeper of the premises, which they trust will meet with the approval of the Society.

The accompanying Reports of the Treasurer, the Librarian and the Cabinet Keeper, will present an account of the condition and prospects of the Finances, the Library, and the Museum.

In view of the meeting of the American Association in August, and of the necessity of arranging and presenting the subjects of the Museum in the best and most scientific order, the Council have engaged the services of J. M. D'Urban Esq., a young Naturalist of considerable attainments and ability, for six months as Assistant Curator. As however the collection cannot be rendered complete or properly arranged without considerable expense, which the present ordinary income of the Society will not sufficiently afford, it has been resolved to meet the additional expenditure by applying to this purpose any special funds that may be obtained.

In surrendering the important interests which have during the past year been confided to them, your Council experience much satisfaction in reviewing the activity and energy of the Society. A measure of progress has marked the history of this valuable Institution—an accession of scientific talent has been acquired, and much important literary and other labour has been undertaken. As the coming year appears destined to be one of considerable promise in promoting the aims of the Society, your Council beg to express a hope that its zeal and energy in the cause and promotion of Science may be crowned with complete success, and may largely contribute to foster that spirit of earnest investigation into the phenomena of nature which so eminently distinguishes the present age.

In conclusion, the Council have to express their gratitude for the liberal aid given by the Government in consideration of the invitation extended to the American Association. The Council recommend that a portion of this sum be expended in arranging and improving the Museum, in providing an entertainment for

one of the evenings of the meeting, and that the balance be reserved for any aid that the Society may be called upon to contribute towards the success of the meeting.

A Report from the Treasurer showing a balance in hand of over ten pounds was also read; as was a Report from the Curator of the Museum, on the state of the Society's collection, and the donations made to it during the past year.

On motion of Dr. Barnston, seconded by Dr. Jones, it was resolved that the Reports now read be received and adopted, and referred to the Council for early publication.

ELECTION OF OFFICE-BEARERS.

The President having appointed Drs. Fraser and Barnston as Scrutineers, the meeting proceeded to ballot for Office Bearers and Council. The following was declared the result:—

President, J. W. Dawson; 1st Vice-President, L. A. H. Latour; 2nd Vice-President, Sir W. E. Logan; 3rd Vice-President, E. Billings; Corresponding Secretary, W. Hingston, M. D.; Recording Secretary, A. N. Rennie; Treasurer, James Ferrier, jr.

Cabinet Keeper and Librarian—Jas. Barnston, M. D.

Members of Council.—Rev. A. F. Kemp, Dr. Fraser, Rev. A. DeSola, Dr. Jones, and H. Chapman.

Library Committee.—Dr. Wright, D. A. Poe, H. Rose, N. S. Whitney.

Mr. J. M. D'Urban was appointed Assistant Curator to the Society; and the following gentlemen named as the Editing Committee of the *Canadian Naturalist*; Messrs. Dawson, Billings, Poe, Hunt, Hingston, Barnston, and Rennie.

On motion by Dr. Jones, seconded by Mr. Billings, it was resolved:—

That the thanks of the Society are hereby given to the retiring Office-bearers and Council, for their valuable and efficient services during the past year.

On motion by the Rev. A. D. Campbell, seconded by Mr. Dutton, it was resolved:—

That the best thanks of this meeting are due to H. H. Whitney, Esq., M.P.P., for his kind and valuable services in further-

ance of the Society's Petition, for a supplementary grant, and that the Recording Secretary be directed to forward a copy of this resolution to the Honorable Member.

It was also moved by the Rev. A. D. Campbell, seconded by L. A. H. Latour, and resolved—That the sum of twenty-five pounds be granted to the Recording Secretary for incidental expenses, and obtaining the necessary assistance connected with the approaching Scientific Convention.

The President having left the chair, which was taken by Dr. Barnston,

The Rev. A. F. Kemp, in a highly complimentary speech, proposed a cordial vote of thanks to Prof. Dawson, for his able, efficient and zealous services during the past year. The motion was seconded by the Rev. A. DeSola, and carried by acclamation. The President briefly but appropriately acknowledged the compliment, and the meeting broke up.

A. N. RENNIE, *Rec. Sec.*

REPORT OF CURATOR.

In accordance with the usual custom, I beg to submit a short Report in reference to the Library and Museum. It is a matter of regret that during the past year nothing has been done to place the Library and Museum in a better condition than they formerly were. This has been owing to a difficulty in the practical organization of the Special Committees appointed to arrange the books in the Library and classify the objects of Natural History in the Museum. Your council of the past year have wisely adopted a much more satisfactory and efficient means of effecting so desirable an object, by securing the services of Mr. D'Urban for the ensuing year, who, besides undertaking to arrange the Museum, will take every opportunity of adding to its collections. He commenced his labours on the first of the present month, and his enthusiasm and ample practical knowledge of Natural History justifies the belief that he will prove of valuable service to the Society. It is intended that the arrangements in the Museum will be more or less completed previous to the session of the American Association for the Advancement of Science next August in this city.

The donations to the Library and Museum, though not very numerous, may be taken as a fair criterion of the interest exhibited by various individuals and institutions in the Society's welfare.

I herewith submit a list of the donations during the past year, and subscribe myself respectfully,

Your obedt. servt.

JAMES BARNSTON, M.D.

Curator.

Montreal, 18th May, 1857.

DONATIONS &c., TO THE LIBRARY AND MUSEUM.

1856-7.

PRESENTED BY.

| | |
|--|---|
| Bombay Magnet and Meteorological Observations, 1852-53, | } East India Company. |
| Esquisse Geologique du Canada, 1855, | |
| An Ancient English Law-Book, 1663, | Sir Wm. Logan. |
| New York Meteorology, by Hough, 1826-50, .. | } J. J. Pelton Esq., N.P. |
| New York State Library Catalogue, 1 & 2, 1855, | |
| Geological Survey of Missouri, | } The Regents of the University of the State of New York. |
| Physiologie de la Terre, 1 & 2, | |
| Filche's Noxious Insects of New York, | |
| Various Pamphlets, | |
| Agriculture of Nova Scotia, | J. W. Dawson, Esq. |
| Statutes of Canada, 1856, with Index, | } |
| Transactions of American Institute, 1854-55, .. | |
| Rapport du Surintendant de l'Education pour le Bas-Canada, | } |
| Proceedings of the Essex Institute, vol. 1, 1748-56, | |
| Transactions of the Medical Faculty of Maryland, | } |
| Statutes of Canada, 1856, | |
| Catalogue of all the Graduates of Jefferson Medical College, Philadelphia, | } |
| Canadian Naturalist and Geologist, Montreal, No. 1, | |
| The Sandstone Fossils of Connecticut River, ... | James Deane, M.D. |
| 2 Pamphlets, | L. A. H. Latour. |
| Portrait of the late William Evans, | } |
| Moth, | |
| Fossil and Rock from Niagara Falls, | Capt. J. F. Dutton. |
| Lycopodium from Thousand Islands, | Capt. Dutton. |
| 2 Moths and Chrysalis, | M. Cockburn & Brown. |
| Mineral from the Balaclava Railroad, with Fossil, .. | Major Hudson, 39th Rg. |
| Pearl Spar, Niagara Falls, | } J. H. Kemp, N. Y. |
| Talc, Statue Island, Niagara, | |
| Asbestos, Statue Island, Niagara, | } |
| Russian Cannon Ball from the Trenches before Sebastopol, | |
| Helmet Ornament of a Russian Soldier, | Major Robertson, 4th Rgt., A.D.C. to Gen. Sir Wm. Eyre. |
| Russian Soldier's Forage Cap from Sebastopol, .. | Do. |
| Indian Arrow Point, | A. Easton, Esq. |
| Indian Stone, | A. N. Rennie, Esq. |
| Box containing several articles taken from an old wreck of a ship of war, | } D. Busteed, Esq. |
| Indian Urn, found by Mr. Gosling, near Clarendon, .. | |
| Piece of Steamboat boiler which exploded at Longueuil, 10th June, 1856, | Lord Bishop of Mont'l. |
| Piece of Marble from late Christ Church, | J. B. Meilleur, M.D. |
| 2 Coins, | Miss Smith. |
| Coins | L. A. H. Latour. |
| | Miss Smith. |

DR. *Natural History Society of Montreal, in Account with W. H. A. Davies, Acting Sec.-Treasurer.* CR.

| | | | |
|--|------------|--|------------|
| To Cash paid for Salaries during the past year,... | £ 37 19 0 | By Balance in Treasurer's hand from last account.. | £ 51 14 3½ |
| " " Fuel, " " ... | 29 7 4 | By Cash from subscriptions and diplomas,..... | 168 12 3 |
| " " Gas, " " ... | 6 12 9 | By Cash from Government Grant,..... | 50 0 0 |
| " " Water, " " ... | 3 0 0 | By Interest from Montreal Savings' Bank,..... | 2 4 8 |
| " " Express Charges, " ... | 1 0 9 | | |
| " " Postages, " " ... | 0 17 4½ | | |
| " " Printing, " " ... | 12 1 3 | | |
| " " Advertising, " " ... | 7 4 6 | | |
| " " Interest, " " ... | 15 11 8 | | |
| " " Commissions, " " ... | 26 17 9 | | |
| " " Repairs, " " ... | 11 18 9 | | |
| " " Contract for repairing house,... | 55 0 0 | | |
| " " Insurances during the past year, | 12 10 0 | | |
| " " Furniture, " " ... | 29 15 0 | | |
| " " Incidental, " " ... | 12 7 8 | | |
| Balance to new Account,..... | 10 15 0 | | |
| | £272 11 2½ | | £272 11 2½ |

E. and O. Excepted.

Audited and found correct,

(Signed) JOSEPH P. DUTTON.

Montreal, 1st May, 1857.

W. H. A. DAVIES, *Acting Sec.-Treasurer.*

