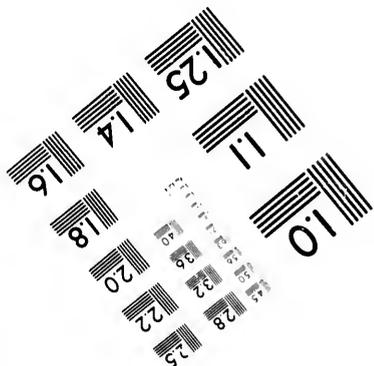
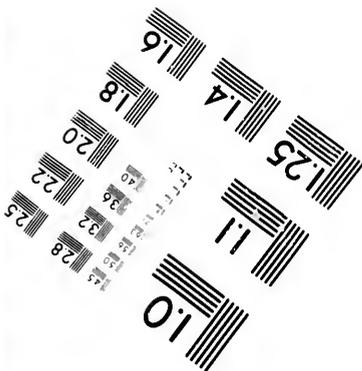
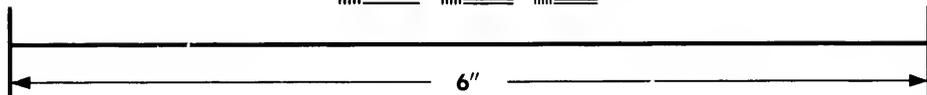
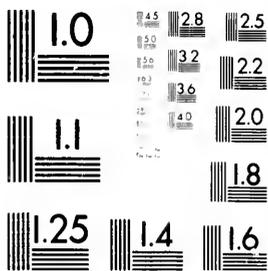


**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

44
36
32
28
25
22
20
18

**CIHM/ICMH
Microfiche
Series.**

**CIHM/ICMH
Collection de
microfiches.**

11
10
9
8
7
6
5
4
3
2
1



Canadian Institute for Historical Microreproductions

Institut canadien de microreproductions historiques

1980

Technical and Bibliographic Notes/Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion
along interior margin/
La reliure serrée peut causer de l'ombre ou de la
distortion le long de la marge intérieure
- Blank leaves added during restoration may
appear within the text. Whenever possible, these
have been omitted from filming/
Il se peut que certaines pages blanches ajoutées
lors d'une restauration apparaissent dans le texte,
mais, lorsque cela était possible, ces pages n'ont
pas été filmées.
- Additional comments:/
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Includes supplementary material/
Comprend du matériel supplémentaire
- Only edition available/
Seule édition disponible
- Pages wholly or partially obscured by errata
slips, tissues, etc., have been refilmed to
ensure the best possible image/
Les pages totalement ou partiellement
obscurcies par un feuillet d'errata, une pelure,
etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
								✓			

The copy filmed here has been reproduced thanks to the generosity of:

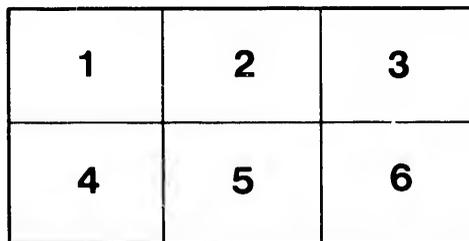
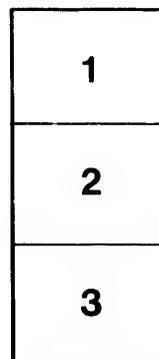
National Library of Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

Bibliothèque nationale du Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

ails
du
difier
une
nage

rata
o

elure,
à

Can. Royal Society of
Sci.

W. H. F. J. J. J.
Sumner

THE
ROYAL SOCIETY OF CANADA.

—◆—
INAUGURAL MEETING,

Hold in the City of Ottawa, May 25, 26 and 27, 1882.

THE ROYAL SOCIETY OF CANADA.

PATRON AND HONORARY PRESIDENT :

His Excellency The Right Honorable THE MARQUIS OF LORNE, K.T., P.C., Governor-General of Canada, &c.

OFFICERS FOR THE MEETING OF MAY, 1882.

PRESIDENT - - - J. W. DAWSON, C.M.G., LL.D., F.R.S.
VICE-PRESIDENT - - - HON. P. J. O. CHAUVEAU, LL.D., Docteur ès Lettres.

PRESIDENTS OF SECTIONS :

SECT. I.—French Literature, History and Allied Subjects.

J. M. LEMOINE, Esq., Membre de la Société Américaine de France.
FAUCHIER DE ST. MAURICE, M.P., Membre de la Société des Gens de Lettres de France.

SECT. II.—English Literature, History and Allied Subjects.

DANIEL WILSON, LL.D., F.R.S.E.
GOLDWIN SMITH, M.A.

SECT. III.—Mathematical, Physical and Chemical Sciences.

T. STERRY HUNT, LL.D., F.R.S.
CHARLES CARPMAEL, M.A.

SECT. IV.—Geological and Biological Sciences.

A. R. C. SELWYN, LL.D., F.R.S.
GEORGE LAWSON, Ph.D., LL.D.

HONORARY SECRETARY - - - - J. G. BOURINOT, F.S.S

MEMBERS OF THE SOCIETY.

Members not present are designated by an asterisk.

I. FRENCH LITERATURE, HISTORY, ARCHÆOLOGY, &c.

- BÉGIN ABBÉ, D.D., Laval University, Quebec.
 • BOIS ABBÉ, Maskinonge, Quebec.
 • BOURASSA NAPOLEON, Montreal.
 CASGRAIN ABBÉ, Docteur ès Lettres, Rivière Ouelle, Q.
 CHAUVREAU HON. P. J. O., LL.D., Docteur ès Lettres, Officier de l'Instruction Publique de France, DE CAZES PAUL, Quebec. [Montreal.
 DUNN OSCAR, Quebec.
 • L'ABBÉ HON. HECTOR, Quebec.
 FAUCHEUR DE ST. MAURICE, M.P.P., Membre de la Société des Gens de Lettres de France, Quebec.
 FRÉCHETTE LOUIS H., LL.D., Lauréat de l'Académie Française, Montreal.
 • LE GENDRE NAPOLEON, Quebec. [Quebec.
 LE MAY PAMPHILE, Librarian of Quebec Legislature,
 LE MOINE J. M., President of Quebec Literary and Historical Society, Quebec.
 MARCHAND HON. F. G., St. John's, Quebec.
 MARMETTE JOSEPH, Quebec.
 • ROUTHIER HON. JUDGE, Docteur ès Lettres, Quebec.
 SCUTE BENJAMIN, Ottawa.
 TANGUAY ABBÉ, Ottawa.
 TASSÉ JOSEPH, M.P., Ottawa.
 VERREAU ABBÉ, Docteur ès Lettres, Officier d'Académie de France, Principal of Jacques-Cartier Normal School, Montreal.

II. ENGLISH LITERATURE, HISTORY, ARCHÆOLOGY, &c.

- BOURINOT JOHN GEORGE, B.A., F.S.S., The Clerk of the Commons, Ottawa.
 BUCKE R. MAURICE, M.D., London, Ont.
 DAWSON REV. BENAS McDONELL, Ottawa.
 DAWSON LT.-COL. G. T., B.C.L., Toronto.
 • GRANT VERY REV. G. M., D.D., Principal of Queen's College, Kingston.
 KIRBY WILLIAM, Niagara.
 • L'ESPÉRANCE JOHN, Montreal.
 LINDSEY CHARLES, Toronto.
 • LYALL REV. W., LL.D., Prof. of Logic and Metaphysics, Dalhousie College, Halifax, N.S.
 • MURRAY GEORGE, B.A., Senior Classical Master, High School, Montreal.
 MURRAY REV. J. CLARK, LL.D., Prof. of Logic, etc., McGill College, Montreal.
 McCOLL EVAN, Kingston.
 READE JOHN, Montreal.
 SANGSTER CHARLES, Ottawa.
 • SMITH GOLDWIN, D.C.L., Toronto.
 STEWART GEORGE, JR., Quebec.
 TODD ALPHIUS, C.M.G., LL.D., Librarian of Parliament, Ottawa.
 • WATSON J., M.A., LL.D., Prof. of Mental and Moral Philosophy, Queen's University, Kingston.
 WILSON DANIEL, LL.D., F.R.S.E., President of University College, Toronto.
 • YOUNG G. FANTON, M.A., Prof. of Logic and Metaphysics, University College, Toronto.

III. MATHEMATICAL, PHYSICAL AND CHEMICAL SCIENCES.

- BAILLARÉ C., C.E., Quebec.
 BAYNE HERBERT A., Royal Military College, Kingston.
 CARMEL C. H., M.A., Supt. Meteorological Service, Toronto.
 CHAPMAN E. J., Ph.D., LL.D., Prof. University College, Toronto.
 CHERRIMAN PROF. J. B., M.A., Supt. of Insurance, Ottawa.
 DEVILLE E., C.E., Dominion Surveys, Ottawa.
 DUPUIS N. F., M.A., F.R.S., Prof. Queen's College, Kingston.
 FLEMING SANDFORD, C.M.G., C.E., Ottawa. [ston.
 • FORTIN P., M.D., M.P., Montreal.
 • GIRDWOOD G. P., M.D., Prof. McGill College, Montreal.
 GIBBORNE F. W., F. Tel. Inst., Electrician, Ottawa.
 HAANEL E., Ph. D., Prof. Victoria College, Cobourg.
 HAHEL V. REV. T. E., M.A., Quebec.
 HARRINGTON B. J., B.A., Ph. D., Prof. McGill College Montreal.
 HOFFMANN G. C., F. Inst. Chem., Geological Survey, Ottawa.
 HUNT T. STERRY, LL.D., F.R.S., Montreal.
 JOHNSON A., LL.D., Prof. McGill College, Montreal.
 • LOUDON J. T., M.A., Prof. University College, Toronto.
 McFARLANE T., M. E., Actonvale, Q.
 McGREGOR J. C., M.A., D.Sc., F.R.S.E., Prof. Dalhousie College, Halifax.

IV. GEOLOGICAL AND BIOLOGICAL SCIENCES.

- BAILEY L. W., M.A., Ph.D., University of New Brunswick, Fredericton.
 • BARNSTON GEO., Montreal.
 BELL ROBERT, M.D., C.E., F.G.S., Asst. Director Geological Survey, Ottawa.
 • DAWSON G. M., D.S., A.R.S.M., F.G.S., Asst. Director Geological Survey, Ottawa.
 DAWSON J. W., C.M.G., LL.D., F. R. S., Principal of McGill College, Montreal.
 GILPIN EDWIN, M.A., F.G.S., Inspector of Mines, Halifax, N. S.
 • GILPIN J. BERNARD, M.D., M.R.C.S., Halifax.
 GRANT J. A., M.D., F.G.S., Ottawa.
 HONEYMAN REV. D., D.C.L., Museum, Halifax.
 • JONES J. M., F.L.S., Halifax.
 LAFLAMME REV. PROF. J.C.K., D.D., Laval University, Quebec.
 LAWSON PROF. G., Ph.D., LL.D., Dalhousie College, Halifax.
 MACOEN J., M.A., F.L.S., Prof. Albert University, Matthew G. F., St. John, N.B. [Belleville.
 • MURRAY ALEXANDER, C.M.G., F.G.S., Director Geological Survey of Newfoundland.
 OSLER W., M.D., Montreal.
 SAUNDERS W., London, Ont.
 SELWYN A. R. C., LL.D., F.R.S., F.G.S., Director of Geol. St. Cyr, D. N., Quebec. [Survey, Ottawa.
 WHITBATES, J. F., F.G.S., Geological Survey, Ottawa.
 WRIGHT R. RAMSAY, M.A., B. Sc., Prof. University College, Toronto.

MINUTES OF PROCEEDINGS.

Meeting of May, 1882.

In accordance with circulars setting forth the time and place of meeting of the Royal Society for the promotion of Literature and Science in the Dominion of Canada, the members assembled in the Railway Committee Room, Parliament Building, Ottawa, at 10 o'clock a.m. on Thursday the 25th May, 1882.

The whole of the members of the Provisional Council were present, with the exception of Mr. Goldwin Smith, then absent in England.

The Honorary Secretary read the following

REPORT OF THE PROVISIONAL COUNCIL.

By invitation of His Excellency the Governor-General a meeting of a few gentlemen designated by him as provisional officers of the proposed organization, was held in Montreal on December 29th and 30th, 1881, when a memorandum from His Excellency relating to the formation of an Institute, Academy, or Society for the promotion of Literature and Science in the Dominion of Canada, was read and considered. It was then unanimously decided to suggest to His Excellency a provisional basis for the constitution of such Society; which, with certain modifications introduced in subsequent discussion, stands as follows:

1. That the title be "The Royal Society of Canada for the promotion of Literature and Science within the Dominion"; and that a memorial be addressed to Her Majesty the Queen asking her sanction to the said title.

2. That the members be persons resident in the Dominion of Canada or in Newfoundland, who have published original works or memoirs of merit or have rendered eminent services to Literature or to Science.

3. That the Society consist of two departments, representing Literature and Science respectively, subdivided into sections, of which the four following shall be at present constituted, with power to subdivide with the consent of the Council.

1. French Literature with History, Archaeology, &c.
2. English Literature with History, Archaeology, &c.
3. Mathematical, Chemical and Physical Sciences.
4. Geological and Biological Sciences.

That the number of members in each section be limited to 20.

4. That the original members be nominated by His Excellency The Governor-General, and that subsequently proposals for election of new members may be made to the Council by any three members, of whom at least two shall belong to the section to which the candidate desires to be assigned, the reasons of the proposal being stated in writing. Such proposal shall be referred to the said section for any representation it may think fit to make. On the approval of the section the Council may submit the proposed name to be balloted for at any regular meeting of the Society. In each section the Presidents, or President and Vice-President, with such other members as may be appointed by the section, shall constitute a committee to report on such applications, and at least three months shall elapse between the proposal of a name to the Council and the ballot thereon.

5. That the officers of the Society shall be a President and Vice-President, with an Honorary Secretary and a Treasurer, to be elected by the whole society; besides a President and Vice-President of each section, to be elected by the section. These elections to be annual.

That the officers so elected shall constitute the Council of the Society, and that the officers nominated by His Excellency for the first meeting shall hold office during that meeting.

That a paid Assistant-Secretary may, if necessary, be employed by the Council.

6. That the first meeting of the Society shall be held at such time and place as His Excellency the Governor-General may appoint; that the headquarters of the Society shall be in Ottawa; and that it shall hold at least one general meeting annually, at such times and places as by bye-law or otherwise it may determine.

7. That the title of any Paper, Memoir or other production, by a member, intended to be read at a meeting of the Society, shall be submitted, together with an abstract of its contents, to the Council, through the Secretary, previous to the meeting at which it is to be read. On its approval, each such communication shall be assigned to the section to which it belongs, and having been therein read and discussed, shall be submitted to the committee of the section, and on report of said committee, may, by vote of the section, be recommended to the Council for publication, either entire or in abstract. Communications by persons not members of the Society may be submitted by members on the same conditions with their own productions.

8. That the Society shall, for its ordinary business, meet in general session, and, for the reading and discussion of papers and other sectional business, shall meet in sections. The public may be admitted to all except business meetings.

9. That the advice and assistance of the Society shall at all times be at the disposal of the Government of the Dominion in all matters which may be within the scope of the Society's functions.

10. That His Excellency the Governor-General be respectfully requested to accept the position of Patron and Honorary President of the Society.

The above suggestions having been approved by His Excellency the Governor-General, and the members of the Society having now been convened in accordance therewith, the Council would make the following

Recommendations :

(1st) That the above provisions be adopted by the Society for the constitution and conduct of the present meeting.

(2nd) That the Council be empowered to consider and report at the general session on Saturday next (27th May) on the best mode of associating with this Society the various local Literary and Scientific Societies existing in the Dominion;—on prizes or other inducements that may be offered to scientific or literary men, not members of the Society;—on the time and place of the next meeting;—on the desirableness of inviting the British Association for the Advancement of Science, and societies of other countries to send delegates to the next or any future meeting;—on the opening of communication with the officers of the Hudson's Bay Company, and others, with reference to the collection of specimens, with the view to the formation of a Canadian Museum of Archives, Ethnology, Archaeology and Natural History;—and also to prepare memorials to the Dominion Government in favour of the establishment of such Canadian Museum, and of a grant to this Society in aid of publication and other objects of the Society.

(3rd) That the Council to be elected at this meeting be empowered to prepare a permanent Constitution and Bye-Laws for the Society,—to arrange for its incorporation,—to suggest as to the means of paying its expenses, whether by fees exigible from members or otherwise,—to apply for Legislative aid,—and to report at next meeting.

(4th) That His Excellency the Governor-General be respectfully requested to transmit to Her Gracious Majesty the Queen the proceedings of this our first meeting, with our humble petition that she will be pleased to sanction our assuming the title of The Royal Society of Canada.

(5th) That the Lieutenant Governors of the Provinces of the Dominion and of Newfoundland, the members of the Honorable the Privy Council, and the Speakers of the two Houses of Parliament, the Chief Justice of the Supreme Court of Canada and the Chief Justices of the Provinces, shall be *ex officio* Honorary Associates of the Society, and shall receive copies of its transactions.

(6th) That the proceedings of the present meeting be arranged as follows:—

After this Session the Sections will meet to organize and appoint Secretaries and Committees, and for other business.

At four o'clock p.m., the meeting will be formally opened by His Excellency the Governor-General, and addresses will be delivered by the President and Vice-President of the Society.

At eight o'clock p.m. the Society will meet in sections for the addresses of Presidents of Sections and for the reading and discussion of papers.

On Friday at 10 a.m., the Society will meet in sections for the reading and discussion of papers.

On Saturday at 10 a.m., the Society will meet in sections for reading of papers, for reports and for elections. At 12 noon it will meet in general session for reports of sections, report of council, elections and other business.

The Council would further report that, in view of the relations of the Province of Newfoundland to the Dominion, and of the eminent scientific services of Alexander Murray, Esq., C.M.G., F.G.S., Director of the Geological Survey of that Province, that gentleman has been nominated a special additional member of this Society, in Section 4, and the Council would recommend that in future, with reference to elections of members of the Society, Newfoundland be regarded as in the same position with the provinces of the Dominion of Canada.

On motion of Dr. Daniel Wilson, seconded by Dr. T. Sterry Hunt, the report was received, and the recommendations therein contained were considered *seriatim* by the Society.

The first, second, third and fourth recommendations having been again read, were unanimously adopted.

The fifth recommendation having been again read it was proposed and agreed that the Council should be requested to take into consideration the advisability of adding to the list of those entitled to receive the Transactions of the Society, and of otherwise amending the said recommendation.

The fifth and sixth recommendations were then duly adopted.

The Secretary then read the roll of members of the Society.

The Society then adjourned to meet in sections for the purpose of organization and the reading and discussion of papers.

FORMAL OPENING OF THE MEETING.

At 4 P.M. the Society assembled in the Senate chamber, a large number of ladies and gentlemen of the city of Ottawa being present. His Excellency the Governor-General, having entered the chamber, followed by the Council of the Society, the members of the Society were presented to him, after which he addressed the Society as follows :

Gentlemen—These few words I do not address to you, presuming to call myself one of your brotherhood, either in science or literature, but I speak to you as one whose accidental official position may enable him to serve you, persuaded as I am that the furtherance of your interests is for the benefit and honour of Canada. Let me briefly state the object aimed at in the institution of this Society. Whether it be possible that our hopes will be fulfilled according to our expectation, the near future will show. From the success which has attended similar associations in other lands, possessed of less spirit, energy and opportunity than our own, there is no reason to augur ill of the attempt to have here a body of men whose achievements may entitle them to recognize and encourage the appearance of merit in literature, and to lead in science and the useful application of its discoveries. It is proposed then that this Society shall consist of a certain number of members who have made their mark by their writings, whether these be of imagination or the study of nature. In one division, our fellow countrymen, descended from the stock of old France, will discuss with that grace of diction and appreciation of talent which are so conspicuous amongst them, all that may affect their literature and the maintenance of the purity of that grand language from which the English is largely derived. They will know how to pay compliments to rising authors, and how with tact and courtesy to crown the aspirants to the honours they will bestow. Among English men of letters the grant of such formal marks of recognition by their brethren has not as yet become popular or usual, and it may be that it never will be customary. On the other hand it surely will be a pleasure to a young author, if after a perusal of his thoughts, they who are his co-workers and successful precursors in the wide domain of poetry, of fiction, or of history, should see fit to award him an expression of thanks for his contribution to the intellectual delight or to the knowledge of his time. They only, whose labours have met with the best reward—the praise of their contemporaries—can take the initiative in such a welcome to younger men; and whatever number may hereafter be elected to this Society, it is to be desired that no man be upon its lists who has not by some original and complete work justified his selection. The meeting together of our eminent men will contribute to unite on a common ground those best able to express the thoughts and illustrate the history of the time. It will serve to strengthen emulation among us, for the discussion of progress made in other lands must breed the desire to push the intellectual development of our own. We may hope that this union will promote the completion of the national collections which, already fairly representative in geology, may hereafter include archives, paintings, and objects illustrating ethnology and all branches of Natural History. In science we have men whose names are widely known; and the vast field for study and exploration afforded by this magnificent country may be expected to reward by valuable discoveries the labours of the geologist and mineralogist. It would be out of place in these few

sentences to detail the lines of research which have already engaged your attention. They will be spoken of in the record of your proceedings. Among those the utility of which must be apparent to all, one may be particularly mentioned. I refer to the meteorological observations, from which have been derived the storm warnings which during the last few years have saved many lives. A comparatively new science has thus been productive of results known to all our population, and especially to seamen. Here I have only touched upon one or two subjects in the wide range of study which will occupy the time and thoughts of one half of your membership, devoted as two of your four sections will be to geological and biological sciences. It will be your province to aid and encourage the workers in the acquisition of knowledge of that Nature, each of whose secrets may become the prize of him who shall make one of her mysteries the special subject of thought. America already bids fair to rival France and Germany in the number of her experts. Canada may certainly have her share in producing those men whose achievements in science have more than equalled in fame the triumphs of statesmen. These last labour only for one country, while the benefits of the discoveries of science are shared by the world. But widely different as are the qualities which develop patriotism and promote science, yet I would call to the aid of our young association the love of country, and ask Canadians to support and gradually to make as perfect as possible this their national society. Imperfections there must necessarily be at first in its constitution—omissions in membership and organization there may be. Such faults may hereafter be avoided. Our countrymen will recognize that in a body of gentlemen drawn from all our provinces and conspicuous for their ability, there will be a centre around which to rally. They will see that the welfare and strength of growth of this association shall be impeded by no small jealousies, no carping spirit of detraction, but shall be nourished by a noble motive common to the citizens of the republic of letters and to the students of the free world of nature, namely, the desire to prove that their land is not insensible to the glory which springs from numbering among its sons those whose success will become the heritage of mankind. I shall not now further occupy your time, which will be more worthily used in listening to the addresses of the presidents, and of those gentlemen who for this year have consented to take the chair at the meetings of the several sections.

The President then addressed the meeting as follows :

My Lord and Gentlemen ; Ladies and Gentlemen,—We meet to-day to inaugurate a new era in the progress of Canadian literature and science, by the foundation of a body akin to those great national societies which in Great Britain and elsewhere have borne so important a part in the advancement of science and letters. The idea of such a society for this country may not be altogether new ; but if broached at all, it has been abandoned from the inability of its advocates to gather together from our widely distributed provinces the elements necessary to its success. Now it presents itself under different and happier conditions. In the mother country, the reign of Queen Victoria, our gracious Sovereign, has been specially marked by the patronage of every effort for the growth of education, literature, science and art, not only on her part but on that of the lamented Prince Albert and of the members of the Royal family. It is fitting that here too the representative of Royalty should exert the same influence, and our present Governor-General has undoubtedly a personal as well as a hereditary right to be the patron of progress and culture in literature and science. Besides this, political consolidation and improved means of intercourse have been welding together our formerly scattered provinces and causing much more intimate relations than formerly to subsist between men of letters and of science.

We are sometimes told that the enterprise in which we are engaged is premature, that like some tender plant too early exposed to the frosts of our Canadian spring, it will be nipped and perish. But we must remember that in a country situated as this is, nearly everything is in some sense premature. It is with us a time of breaking-up ground and sowing and planting, not a time of reaping or gathering fruit, and unless this generation of Canadians is content, like those that have preceded it, to sow what others must reap in its full maturity, there will be little hope for our country. In Canada at present, whether in science, in literature, in art or in education, we look around in vain for anything that is fully ripe. We see only the rudiments and beginnings of things, but if these are healthy and growing, we should regard them with hope, should cherish and nurture them as the germs of greater things in the future. Yet there is a charm in this very immaturity, and it brings with it great opportunities. We have the freedom and freshness of a youthful nationality. We can trace out new paths which must be followed by our successors, we have the right to plant wherever we please the trees under whose shade they will sit. The independence which we thus enjoy, and the originality which we can claim, are in themselves privileges, but privileges that carry with them great responsibilities.

Allow me to present to you a few thoughts bearing on this aspect of our position, and in doing so to confine myself chiefly to the side of science, since my friend Dr. Chauveau, who is to follow, is so much better able to lay it before you from the literary point of view.

Young though our country is, we are already the heirs of the labours of many eminent workers in science, who have passed away or have been removed from this country. In geology, the names of Bigsby, Bayfield, Baddeley, Logan, Lyell, Billings, Hector and Isbister, will occur to all who have studied the geological structure of Canada, and there are younger men like McQuat and Hartley, too early snatched away, who have left behind them valuable records of their labours. In botany and zoology we can point to Michaux, Pursh, Hooker, Shepherd, Bourgeau, Douglas, Menzies, Richardson, Lord and Brunet. These are but a few of the more eminent labourers in the natural history of this country, without mentioning the many living workers who still remain to it; and were it the object of this Society merely to collect and reproduce and bring up to date what these older men have done, it would have no small task before it. But to this we have to add the voluminous reports of the Geological Survey, and the numerous papers and other publications of the men who are still with us. In natural science we thus have a large mass of accumulated capital on which to base our future operations, along with an unlimited scope for further researches.

The older men among us know how much has been done within the lifetime of the present generation. When, as a young man, I began to look around for means of scientific education, there was no regular course of natural science in any of our colleges, though chemistry and physics were already taught in some of them. There were no collections in geology or natural history except the private cabinets of a few zealous workers. The Geological Survey of Canada had not then been thought of. There were no special schools of practical science, no scientific libraries, no scientific publications, and scarcely any printed information accessible. In these circumstances, when I proposed to devote myself to geological pursuits, I had to go abroad for means of training not then equal to that which can now be obtained in many of our Canadian colleges. Nor at that time were there public employments in this country to which a young geologist or naturalist could aspire. It is true this was more than forty years ago, but in looking back it would seem but as yesterday, were not these years marked by the work that has been done, the mass of material accumulated, and the scientific institutions established within that time. Those who began their scientific work in these circumstances may be excused for taking somewhat hopeful views as to the future.

Perhaps at present the danger is that we may be content to remain in the position we have reached, without attempting anything farther; and however inconsistent this may be, it is easy to combine the fear that any movement in advance may be rash and premature, with the self-satisfied belief that we have already advanced so far that little remains to be attained. We must bear in mind, however, that we have still much to do to place us on a level with most other countries. With the exception of the somewhat meagre grants to the Geological Survey and to the Meteorological Service, the Government of Canada gives nothing in aid of scientific research. What is done for scientific education by local societies must, under our system, be done by the separate Provinces, and is necessarily unequal and imperfect. Few large endowments have been given for scientific purposes. We have had no national society or association comparable with those in other countries. Yet we are looking forward to a great future. Wealth and population are moving rapidly onward, and the question is whether culture of the higher grade shall keep pace with the headlong rush of material progress. Various elements may enter into the answer of this question, but undoubtedly the formation of such a society as this is one of these of the utmost importance; and even though at the present time the project may fail of success, or be only partially effective (of which, however, I have no apprehension), it must be renewed till finally enabled to establish itself.

Another consideration bearing on this question is the vastness of the territory which we possess, and for the scientific development of which we have assumed the responsibility. Canada comprises one-half of the great North American continent, reaching for three thousand miles from east to west, and extending from south to north from the latitude of 42° to the Polar Sea. In this area we have representatives of all the geological formations from the Laurentian and Huronian, to which Canada has the honor of giving names, to the Post-pliocene and modern. Of some of these formations we have more magnificent developments than any other country. In zoology our land area extends from the home of the musk-ox on the north to that of the rattlesnake on the south, and we have perhaps the greatest area possessed by any country for the study of fresh-water animals. Our marine zoology includes that of the North Atlantic, the North Pacific and the Arctic Ocean. In botany we have the floras of the Atlantic and Pacific slopes, of the western plains and of the Arctic zone. In physical, astronomical and meteorological investigations we have the advantage of vast area, of varied climate and conditions; while these circumstances in themselves imply responsi-

bilities in connection with the progress of science not here only but throughout the world. Much is no doubt being done to cultivate these vast fields of research, and I would not for a moment under-rate the efforts being made and the arduous labours, perils and privations to which the pioneers in these fields are even now subjected, but what is being done is relatively insignificant. Many letters from abroad reach me every year asking for information or reference to Canadian workers in specialties which no one here is studying; and I know that most of our active naturalists are continually driven by such demands to take up new lines of investigation in addition to those already more than sufficient to occupy their time and energy. Were it not for the aid indirectly given to us by the magnificent and costly surveys and commissions of the United States, which freely invade Canadian territory whenever they find any profitable ground that we are not occupying, we should be still more helpless in these respects. Is there not in these circumstances reason for combination of effort, and for the best possible arrangements for the distribution of our small force over the vast area which it has to maintain.

I have dealt sufficiently long on topics which indicate that the time has fully come for the institution of the Royal Society of Canada. Let us turn for a moment to the consideration of the ends which it may seek to attain and the means of their attainment.

I would place here first the establishment of a bond of union between the scattered workers now widely separated in different parts of the Dominion. Our men of science are so few and our country so extensive that it is difficult to find in any one place or within reasonable distance of each other, half a dozen active workers in science. There is thus great lack of sympathy and stimulus, and of the discussion and interchange of ideas which tend so much to correct as well as to encourage. The lonely worker finds his energies flag, and is drawn away by the pressure of more popular pursuits, while his notions become one-sided and inaccurate through want of friendly conflict with men of like powers and pursuits. Even if this Society can meet but once a year, something may be done to remedy the evils of isolation.

Again, means are lacking for the adequate publication of results. True we have the reports of the Geological Survey, and Transactions are published by some of the local societies, but the resources at the disposal of these bodies are altogether inadequate, and for anything extensive or costly we have to seek means of publication abroad; but this can be secured only under special circumstances; and while the published results of Canadian science become so widely scattered as to be accessible with difficulty, much that would be of scientific value fails of adequate publication, more especially in the matter of illustrations. Thus the Canadian naturalist is often obliged to be content with the publication of his work in an inferior style and poorly illustrated, so that it has an aspect of inferiority to work really no better, which in the United States or the mother country has the benefit of sumptuous publication and illustration. On this account he has often the added mortification of finding his work overlooked or neglected, and not infrequently while he is looking in vain for means of publication, that which he has attained by long and diligent labour is taken away from him by its previous issue abroad. In this way also it very often happens that collectors who have amassed important material of great scientific value are induced to place it in the hands of specialists in other countries, who have at their command means of publication not possessed by equally competent men here. The injury which Canadian science and the reputation of Canada sustain in this way is well known to many who are present and who have been personal sufferers.

Should this Society have sufficient means placed at its disposal to publish Transactions—I shall not say equal to those of the Royal Society of London or the Smithsonian Institution at Washington—but to those of such bodies as the Philadelphia Academy or the Boston Society of Natural History, an incalculable stimulus would be given to science in Canada, by promoting research, by securing to this country the credit of the work done in it, by collecting the information now widely scattered, and by enabling scientific men abroad to learn what is being done here. It is not intended that such means of publication should be limited to the works of members of the Society. In this respect it will constitute a judicial body to decide as to what may deserve publication. Its Transactions should be open to good papers from any source, and should in this way enable the younger and less known men of science to add to their own reputation and that of the country, and to prepare the way for admission to membership of this Society.

Few expenditures of public money are more profitable to the State than that which promotes scientific publication. The actual researches made imply much individual labour and expense, no part of which falls on the public funds; and by the comparatively small cost of publication, the country obtains the benefit of the results obtained, its mental and industrial progress is stimulated, and it acquires reputation abroad. This is now so well understood that in most countries public aid

is given to research as well as to publication. Here, we may be content in the first instance with the latter alone; but if the Society shall at first be sustained by the Government, it may be hoped that, as in older countries, private benefactions and bequests will flow in to it, so that eventually it may be able not merely to afford means of publication but to extend substantial aid to young and struggling men of science who are following out, under difficulties, important investigations.

In return for aid given to this Society, the Government may also have the benefit of its advice as a body of experts in any case of need. The most insignificant natural agencies sometimes attain to national importance. A locust, a midge, or a parasitic fungus, may suddenly reduce to naught the calculations of a finance-minister. The great natural resources of the land and of the sea are alike under the control of laws known to science. We are occasionally called on to take our part in the observation of astronomical or atmospheric phenomena of world-wide interest. In such cases it is the practice of all civilized governments to have recourse to scientific advice, and in a Society like this our Government can command a body of men free from the distracting influence of private and local interests and able to warn against the schemes of charlatans and pretenders.

Another object which we should have in view is that of concentrating the benefits of the several local societies scattered through the Dominion. Some of these are of long standing and have done much original work. The Literary and Historical Society of Quebec is, I believe, the oldest of these bodies, and its Transactions include not merely literature and history but much that is of great value in natural science, while it has been more successful than any of our other societies in the accumulation of a library. The Natural History Society of Montreal, of which I have had the honour to be a member for 27 years, is now in its 53rd year. It has published seventeen volumes of Proceedings, including probably a larger mass of original information respecting the natural history of Canada than is to be found in any other publication. It has accumulated a valuable museum, and has done much to popularize science. It has twice induced the American Association for the Advancement of Science to hold its meetings in Canada, and was the first body to propose the establishment of a Geological Survey. The Canadian Institute of Toronto, occupying the field of literature as well as science, though a younger has been a more vigorous society; and its Transactions are equally voluminous and valuable. The Natural History Society of St. John, New Brunswick, though it has not published so much, has carried out some very important researches in local geology, which are known and valued throughout the world. The Nova Scotian Institute of Natural Science is a flourishing body and publishes valuable Transactions. The Institut Canadien of Quebec, and the Ottawa Natural History Society, are also flourishing and useful institutions. The new Natural History Society of Manitoba has entered on a vigorous and hopeful career. There are also in the Dominion some societies of great value cultivating more restricted fields than those above referred to, and of a character rather special than local. As examples of these I may mention the Entomological Society of Canada, the Historical Society and the Numismatic Society of Montreal.

Did I suppose that this Society would interfere with the prosperity of such local bodies, I should be slow to favour its establishment. I believe, however, that the contrary effect will be produced. They are sustained by the subscriptions and donations of local members and of the provincial legislatures, while this Society must depend on the Dominion Parliament, from which they draw no aid. They will find abundant scope for their more frequent meetings in the contributions of local labourers, while this will collect and compare these and publish such portions as may be of wider interest. This Society will also furnish means of publication of memoirs too bulky and expensive to appear in local Transactions. There should however be a closer association than this. It is probable that nearly all of the local societies are already represented among our members by gentlemen who can inform us as to their work and wishes. We should therefore be prepared at once to offer terms of friendly union. For this purpose it would be well to give to each of them an associate membership for its president and one or two of its officers, nominated by itself and approved by our council. Such representatives would be required to report to us for our Transactions the authors and subjects of all their original papers, and would be empowered to transmit to us for publication such papers as might seem deserving of this, and to make suggestions as to any subjects of research which might be developed by local investigation. The details of such association may, I think, readily be arranged, and on terms mutually advantageous, and conducive to the attainment of the objects we all have in view.

It would be a mistake to suppose that this Society should include all our literary and scientific men, or even all those of some local standing. It must consist of selected and representative men who have themselves done original work of at least Canadian celebrity. Beyond this it would have no resting place short of that of a great popular assemblage whose members should be characterised rather by mere receptivity than by productiveness. In this sense it must be exclusive in its member-

ship, but inclusive in that it offers its benefits to all. It is somewhat surprising, at first sight, and indicative of the crude state of public opinion in such matters, that we sometimes find it stated that a society so small in its membership will prove too select and exclusive for such a country as this; or find the suggestion thrown out that the Society would become a professional one by including the more eminent members of the learned professions. If we compare ourselves with other countries, I rather think the wonder should be that so many names should have been proposed for membership of this Society. Not to mention the strict limitations in this respect placed on such societies in the mother country and on the Continent of Europe, we have a more recent example in the National Academy of Sciences in the United States. That country is probably nearly as democratic in its social and public institutions as Canada, and its scientific workers are certainly in the proportion of forty to one of ours. Yet the original members of the Academy were limited to 50, and though subsequently the maximum was raised to 100, this number has not as yet been attained. Yet public opinion in the United States would not have tolerated a much wider selection, which would have descended to a lower grade of eminence, and so would have lowered the scientific prestige of the country.

Science and literature are at once among the most democratic and the most select of the institutions of society. They throw themselves freely into the struggle of the world, recognise its social grades, submit to the criticism of all, and stand or fall by the vote of the majority; but they absolutely refuse to recognize as entitled to places of importance any but those who have earned their titles for themselves. Thus it happens that the great scientific and literary societies must consist of few members, even in the oldest and most populous countries, while on the other hand their benefits are for all, they diffuse knowledge through the medium of larger and more popular bodies whose membership implies capacity for receiving information though not for doing original work, and the younger men of science and literature must be content to earn their admission into the higher rank, but have in the fact that such higher rank is accessible to them, an encouragement to persevere, and in the meantime may have all their worthy productions treated in precisely the same manner with those of their seniors.

Finally, we who have been honoured with the invitation to be the original members of this Society have a great responsibility and a high duty laid upon us. We owe it to the large and liberal plan conceived by His Excellency the Governor-General to carry out this plan in the most perfect manner possible, and with a regard not to personal, party or class views, but to the great interests of Canada and its reputation before the world. We should approve ourselves first unselfish and zealous literary and scientific men, and next Canadians in that widest sense of the word in which we shall desire, at any personal sacrifice, to promote the best interests of our country, and this in connection with a pure and elevated literature and a true, profound and practical science.

We aspire to a great name. The title of "Royal Society," which, with the consent of Her Gracious Majesty the Queen, we hope to assume, is one dignified in the mother country by a long line of distinguished men who have been fellows of its Royal Society. The name may provoke comparisons not favourable to us; and though we may hope to shelter ourselves from criticism by pleading the relatively new and crude condition of science and literature in this country, we must endeavour, with God's blessing on earnest and united effort, to produce by our cultivation of the almost boundless resources of the territory which has fallen to us as our inheritance, works which shall entitle us, without fear of criticism, to take to ourselves the proud name of the Royal Society of Canada.

The Vice-President, Hon. Dr. Chauveau, then spoke as follows:—

Excellence, mes chers confrères, Mesdames et Messieurs,—Il ne s'est pas encore écoulé un demi-siècle depuis qu'à la suite d'événements politiques, qui furent alors regardés comme désastreux, les deux provinces que la constitution de 1791 avait créées furent réunies en une seule: à peine trois lustres ont passé sur l'union fédérale des colonies anglaises de l'Amérique du Nord, qui succéda à l'union législative du Haut-Canada et du Bas-Canada: cependant si j'entreprenais d'exposer, en détail, tous les progrès qui se sont accomplis dans les deux périodes que je viens d'indiquer, il me resterait à peine le temps de parler de notre passé littéraire et de la nouvelle institution que nous inaugurons aujourd'hui et qui, tout nous porte à l'espérer, est elle-même un grand progrès, le complément de tous les autres.

Le pays s'est couvert en tous sens de canaux et de chemins de fer, d'immenses et lointaines régions ont été rapprochées de nous et livrées à la colonisation, les communications postales et télégraphiques ont été multipliées, des mines de toute espèce ont été découvertes et exploitées, notre

marine, nos industries, notre commerce ont pris d'énormes proportions, de nouveaux rapports ont été établis avec les pays étrangers, leurs capitaux ont été attirés vers nous, de nouvelles institutions financières ont été créées, enfin notre population, malgré un exode continué vers les États-Unis, s'est accrue d'une manière presque prodigieuse : voilà pour le mouvement matériel !

Le véritable système de gouvernement constitutionnel, dont nous n'avions jusque-là qu'un vain simulacre, s'est établi ; il fonctionne en ce moment et dans l'ordre fédéral et dans l'ordre provincial ; le régime municipal s'est perfectionné, et s'il est la source de bien des abus, il est aussi la cause de bien des progrès ; les institutions destinées à soulager les misères de l'humanité se sont multipliées, grâce à l'initiative des communautés religieuses, des sociétés charitables et de nos gouvernements ; la plus ancienne province s'est fait un code de lois civiles que l'on commence à lui envier ; des questions que les intérêts religieux et sociaux des diverses sections de la population rendaient très difficiles ont été résolues ; enfin la sphère d'action de nos hommes publics s'est agrandie, et les deux carrières fédérale et locale, qui leur sont ouvertes et dont il est difficile d'apprécier l'importance relative, tant chacune est utile, ne manquent ni l'une ni l'autre de sujets habiles et dévoués ; voilà pour le mouvement politique et social !

L'instruction du peuple a fait partout de véritables et solides progrès ; les institutions de haute éducation se sont développées et ont augmenté leur utilité ; les institutions spéciales et scientifiques ont été créées ; les associations littéraires, le journalisme ont pris un vaste essor, les revues et les recueils littéraires ou scientifiques, malgré les grandes difficultés qui s'opposent à leur succès, se sont établis, de nouvelles publications remplaçant bravement celles qui étaient mortes à la peine ; les bibliothèques, les musées, les conférences populaires se sont multipliées ; les travaux historiques ont pris une très grande importance ; enfin une littérature nationale dans chacune des deux langues, qui sont aux temps modernes ce que le grec et le latin étaient aux temps anciens, a vu le jour et commence à attirer les regards des Européens : voilà pour le mouvement intellectuel !

Je sais qu'il y a des ombres à ce tableau, et si je le présente sous son meilleur aspect, ce n'est pas que je veuille excuser ceux qui avaient donné un caractère d'injustice marquée à la grande évolution politique qui fut le point de départ de tous ces progrès, ni encore bien moins blâmer les hommes de la nationalité à laquelle j'appartiens, qui ont fait dans le principe une si noble et si énergique résistance à la législation impériale de 1840. C'est grâce à cette résistance qu'ils ont obtenu pour eux-mêmes et pour nous tous, messieurs, les libertés dont nous jouissons en commun et dont nous sommes si fiers. Sans la lutte qui en résulta, les deux grandes races qui forment la plus grande partie du peuple de notre vaste confédération, n'auraient pas été mises sur un pied d'égalité et ne fraterniseraient point comme elles le font aujourd'hui.

Du reste, aux moments les plus critiques de notre histoire, il s'est toujours trouvé des hommes d'État anglais qui ont compris le rôle que les deux races avaient à jouer sur cette partie du continent américain. Je n'en veux pour exemple que ces nobles paroles de lord Grenville dans la discussion du projet de constitution de 1791 :

“ On a appelé préjugé, dit cet homme éminent, l'attachement des Canadiens à leurs coutumes, à leurs lois, à leurs usages, qu'ils préfèrent à ceux de l'Angleterre. Je crois qu'un pareil attachement mérite un autre nom que celui de préjugé, selon moi cet attachement est fondé sur la raison et sur quelque chose de mieux que la raison, il est fondé sur les sentiments les plus nobles du cœur humain.”

Ne trouvez-vous pas, messieurs, une frappante ressemblance entre cette loyale déclaration et les paroles qui, après bien des vicissitudes, bien des malentendus, bien des luttes, sont tombées à diverses reprises de la bouche de plusieurs représentants de Sa Majesté ; et en particulier de la bouche de sir Charles Bagot, de celles de lord Elgin, et de lord Dufferin, et dans une occasion plus récente de celle du haut personnage qui préside cette réunion ?

George III régnait lorsque nos deux premières constitutions—1774 et 1791—nous furent données, et notre historien, M. Garneau, dont le témoignage ne saurait être suspect, rend hommage aux efforts que fit ce monarque pour vaincre les préjugés, les ressentiments et les craintes qui s'opposaient à toute mesure de libéralité ou même de justice à l'égard des nouveaux sujets, comme on appelait alors les Canadiens d'origine française. Il attribue à la reconnaissance de nos pères l'accueil enthousiaste fait au prince William Henry, qui visita ce pays en 1787, et au prince Édouard, père de notre gracieuse souveraine qui se trouva présent au début de la constitution de 1791.

La période de temps qui s'est écoulée sous nos deux autres constitutions (1840 et 1867) n'a pas vu dans ce pays, moins de cinq des descendants de George III, parmi lesquels l'héritier présomptif de la Couronne, qui inaugura le gigantesque pont tubulaire Victoria, une des merveilles de l'Amérique

et du monde entier, et qui posa la première pierre de l'édifice où se tiennent nos séances. N'est-il point permis de croire que la bienveillance dont cette grande colonie a été ainsi l'objet est une tradition de famille, tradition qui n'est pas tout-à-fait étrangère à la sollicitude que Son Excellence le Gouverneur-Général montre en ce moment pour tout ce qui a trait à notre progrès intellectuel?

Déjà les Beaux-Arts ont eu sous le patronage de S. A. R. la Princesse Louise et de Son Excellence le Gouverneur-Général l'établissement d'une Académie dont les premières expositions ont fait naître les plus belles espérances : c'est aujourd'hui le tour des Sciences et des Lettres.

Sciences et Lettres, cela est bientôt dit, et cependant, que de choses dans ces deux mots ! Ce qu'ils représentent n'est, cependant, ni aussi nouveau, ni aussi incomplet dans ce pays qu'on le pense généralement. Il y a longtemps, bien longtemps que de nobles efforts pour la culture de l'esprit humain ont été faits, sur les rives du Saint-Laurent.

Il en est un peu de notre histoire ancienne, toute proportion gardée, comme de celle du moyen-âge si longtemps ignorée ou travestie. Celui qui a lu les pages enchanteuses d'Ozanam ou de Montalembert éprouve un sentiment d'indignation, lorsqu'il entend appeler siècles de ténèbres et d'ignorance, ceux où non-seulement brillèrent des docteurs qui n'ont pas été surpassés ni même égalés depuis : mais où les cloîtres étaient des académies, des musées et des bibliothèques, où des milliers d'élèves encombraient les bancs des universités, où étudiants comme professeurs faisaient les plus grands sacrifices pour la science, où la même abnégation, le même courage, la même persévérance qu'avaient montrés des générations entières d'artistes et d'ouvriers pour bâtir ces grandes cathédrales qui s'élèvent comme des géants au-dessus des constructions de l'Europe moderne, faisaient aussi que des légions de maîtres et de disciples travaillaient sans cesse à conserver et à étendre le domaine de l'intelligence.

Eh bien, dès les premiers établissements faits dans ce pays, non-seulement on s'est occupé d'y faire briller les vérités de la Religion, d'y établir la pratique de la plus belle des vertus qu'elle enseigne, la charité à laquelle tant de monuments, dont quelques-uns existent encore, furent élevés, mais on a travaillé avec beaucoup de zèle et d'activité à tout ce qui pouvait contribuer à transplanter et à faire fleurir ici les sciences et les arts, qui à cette époque jetaient un si vif éclat sur le continent de l'Europe.

Il est constaté que la plupart des premiers colons savaient lire et écrire—plusieurs étaient même des hommes doués d'une éducation classique ou professionnelle—que des écoles furent ouvertes en plusieurs endroits et cela indépendamment des institutions des Jésuites, du Séminaire fondé par Mgr de Laval, et de celui des Messieurs de St. Sulpice. Une éducation littéraire et domestique des plus saines, et plus élevée qu'on ne serait tenté de le croire, se donnait aux jeunes filles aux Ursulines à Québec et aux Trois-Rivières et chez les Sœurs de la Congrégation de Notre-Dame à Montréal. Les amateurs du beau, de l'esthétique comme on dit aujourd'hui pourraient admirer encore avec avantage les riches travaux que l'on conserve dans quelques-uns de nos monastères.

Le collège des Jésuites à Québec, l'école des arts fondée par Mgr de Laval à St. Joachim, formaient des sujets précieux dont quelques-uns ont rendu à la colonie d'importants services. On soutenait des thèses publiques à l'imitation de ce qui se faisait dans l'ancien monde : les gouverneurs et les intendants y assistaient et prenaient part à la dispute. Ces fonctionnaires comme l'évêque étaient presque toujours des lettrés. Frontenac était un ami des lettres, sa femme était du cercle intime de Madame de Sévigné. M. de la Galissonnière était un savant. Talot, était un homme de la plus belle éducation, M. Dupuy, un de ses successeurs, transporta au pays sa bibliothèque qui était considérable. M. Boucher, gouverneur des Trois-Rivières écrivit une Histoire naturelle du pays. Les missionnaires étaient le plus souvent en même temps que des apôtres et des diplomates, des explorateurs dans le champ de la science. Le Père Charlevoix, le Père Lafiteau ont fait des études ethnologiques, des découvertes précieuses en botanique.

Les grands voyageurs ne s'aventuraient point dans les vastes régions de l'Ouest sans avoir la plupart, les connaissances astronomiques et géométriques nécessaires pour leurs explorations. On a trouvé dernièrement ce que l'on croit être un instrument d'observation perdu par Champlain dans son voyage de l'Ottawa au lac Nipissingne. Ce grand homme que l'on peut appeler le père de la patrie était aussi un savant et un vigoureux et solide écrivain. A part l'histoire de ses voyages au Canada, il a laissé un traité sur l'art de la navigation et une magnifique description des pays du Golfe du Mexique, dans laquelle ses connaissances dans l'art du dessin et dans toutes les branches de l'histoire naturelle se font remarquer. Plus que cela, il a, le premier conçu le projet d'unir par un canal les deux Océans que sépare l'Isthme de Panama, projet qu'après plus de deux siècles et demi un de ses compatriotes est en voie d'exécuter.

Les Nicolet, les Joliet, les Marquette, les Gauthier de la Veyrenderie durent se fonder dans leurs découvertes sur les données de la science. Joliet était un élève du collège des Jésuites et il y avait

soutenu une thèse publique qui avait attiré sur lui l'attention. Plus d'un botaniste à cette époque a parcouru nos forêts, et avant que le suédois Kalm, élève de Linnée, ne fût venu au château St. Louis accepter l'hospitalité de M. de la Galissonnière, ami des sciences comme on l'est aujourd'hui à Rideau Hall, Sarrasin et Gauthier avaient déjà donné leurs noms à des plantes utiles. M. Talon fit étudier les ressources minérales et la géographie du pays sur une grande étendue de territoire ; il devait avoir pour cela des hommes de la science à son service.

Du reste, dans ce petit monde, si isolé pendant nos longs hivers, agité de préoccupations matérielles qui s'imposaient de la manière la plus irrésistible, toujours en proie aux émotions de quelque nouvelle guerre, de quelque nouvelle invasion, c'était merveille de voir encore quelque science et quelque littérature se conserver. Et cependant quel charme dans les *Relations* du temps, quel style enjoué et élégant, et surtout quelle ardeur, quelle élévation, quelle philosophie profonde dans les lettres de cette célèbre mystique, qui a prédit la grandeur de notre pays, et que Bossuet a appelé la Sainte-Thérèse du Canada !

Le goût du beau, l'idéal, le sentiment de la nature, c'est-à-dire la poésie ; la recherche de la vérité c'est-à-dire la philosophie : l'étude du monde et de ses lois, c'est-à-dire la science ne se rencontrent pas seulement dans les livres. Les livres ne sont que les archives de la pensée humaine, archives incomplètes et surchargées de pages très inutiles pour ne rien dire de plus. Les plus belles choses qu'on y trouve souvent n'ont pas été faites pour eux. Les lettres de M^{de} de Sévigné, celles de Lord Chesterfield, les pensées de Pascal n'ont pas été écrites pour la foule. Racine composait timidement pour quelques petites pensionnaires deux tragédies dont l'une est devenue un des plus grands chefs-d'œuvre du théâtre français.

On me dira que rien de ce qui se passait alors dans notre pays ne justifie un pareil rapprochement. Tout ce que je veux dire, c'est qu'il y avait ici—et je crois l'avoir prouvé—une activité intellectuelle qui se faisait jour de mille manières et si elle n'a laissé de trace écrite que dans un petit nombre d'ouvrages, imprimés en France et se vendant aujourd'hui au poids de l'or, elle n'en a pas moins fait triompher la civilisation de la barbarie.

N'était-ce pas un spectacle admirable, que celui de cette petite société, concentrée dans trois petites villes, une partie s'éparpillant à des distances immenses, revenant avec des récits vrais, mais à peine croyables de tout ce qu'elle avait vu et souffert—hélas, le plus souvent ne revenant jamais !—n'était-ce pas un merveilleux spectacle, celui qui donnait au monde cette vaillante avant-garde de la civilisation, dont le rôle était précisément, à certains égards, l'inverse de celui de la société chrétienne au moyen-âge ? Celle-ci refoulait en la transformant, la barbarie qui envahissait le vieux monde ; celle-là venait envahir dans le nouveau monde une autre barbarie plus terrible encore, et lutter contre elle à des milliers de lieues de distance, à travers un océan inconnu, dans des forêts sans bornes, et la moitié de l'année couvertes d'une épaisse couche de neige.

C'était par le contact de tous ces hommes instruits, quelquefois même d'un génie supérieur, de toutes ces femmes distinguées, que l'habitant canadien, assez souvent lui-même du reste, un fils de famille, un ancien interprète, un ancien officier ou un ancien soldat de quelqu'un des meilleurs régiments de France, conservait cette intelligence éclairée, cette foi robuste, cette patience inébranlable, ces principes d'honneur, cette politesse de manières, cet heureux enjouement, en un mot, ces qualités supérieures de l'humanité qui ont fourni le nom et la désignation de la littérature elle-même chez les anciens : *humaniores litteræ*.

La population de la colonie fut longtemps peu nombreuse ; la classe instruite y était dans une proportion considérable : elle était par nécessité, intimement mêlée à la classe moins favorisée sous le rapport des lumières ; il devait y avoir, il y avait un rayonnement nécessaire de l'une à l'autre. Les missionnaires—et tous les curés, étaient à cette époque des missionnaires—les ordres religieux eux-mêmes, n'évangélisaient point que les sauvages. Ils maintenaient partout la civilisation et un certain degré d'instruction par leurs rapports constants avec les populations rurales même les plus éloignées et les plus isolées.

Deux des ordres les plus célèbres s'étaient dévoués à notre pays. L'un d'eux est fameux dans le monde entier et le Canada lui a fourni quelques-unes des plus belles pages de ses annales. Moins connus que ceux des Jésuites, les travaux des Franciscains n'ont pas peu contribué à la grande œuvre de la civilisation. Ils ont été les premiers à la peine ; mais ils sont loin d'avoir été les premiers à l'honneur.

Du reste, le doux et humble solitaire d'Assise était bien le type de ces apôtres, d'hommes qui devaient passer leur vie au milieu de la nature la plus primitive, on colporter les premiers rudiments des lettres humaines d'habitation en habitation le long de notre grand fleuve. C'était—n'en déplaise aux savants qui sont ici—c'était le plus parfait des naturalistes que ce bon St. François, car

suivant la légende non seulement il aimait tous les êtres de la création, mais il s'en faisait aimer ; il charmait les poissons, les oiseaux, même les bêtes féroces ; il ne disait pas seulement comme tout le monde : mon ami le chien ; il disait aussi : mon ami le loup. Châteaubriand a, dans son *Genie du Christianisme*, une charmante peinture des pérégrinations des pères Franciscains dans les hameaux et dans les châteaux de France ; M. de Gaspé nous a donné une idée de ce qu'ils étaient ici encore de son temps ; mais combien plus intéressant serait le tableau de leurs premières missions ! Tandis que les Jésuites, le séminaire de Québec, les Sulpiciens, et les religieuses Ursulines travaillaient à la haute éducation, ces pieux mendiants avec les filles de la sœur Bourgeois et quelques instituteurs laïques—le premier de Vaudreuil en fit établir un certain nombre—répandirent l'instruction primaire.

Si, comme Charlevoix et Kalm le lui reprochent, la jeunesse était quelque peu frivole dans ses goûts et ses habitudes, comme les mœurs de l'époque où ils visitèrent la colonie le feraient penser, il n'en est pas moins vrai que des centres de lumière et de science existaient alors comme aujourd'hui, et c'est bien à tort que l'on représente la masse de la population comme plongée dans les ténèbres épaisses de l'ignorance.

J'avoue qu'après la conquête il y eut presque une lacune.

Je le dis sans amertume, mais non pas sans émotion, il y eut une assez longue période de temps où nous fûmes les déshérités de deux nations : notre ancienne mère-patrie nous avait abandonnés, notre nouvelle mère-patrie ne nous avait pas encore adoptés.

Presque toute la classe instruite, à l'exception du clergé, de quelques seigneurs et de quelques hommes de loi, repassa en France ; les deux ordres religieux dont je viens de parler furent supprimés, toutes les écoles qu'ils avaient furent fermées.

Plus de rapports avec la France, plus de livres. Heureusement que l'imprimerie ne tarda pas à s'établir : nos premières éditions, nos incunables Canadiens furent des livres d'école, des livres de prières ou des livres de loi. Ils répondaient aux besoins les plus pressants. La presse périodique mit du temps à se fonder ; dans le principe elle fut d'un bien faible secours au point de vue littéraire ainsi qu'au point de vue politique.

Cependant, deux foyers de lumière étaient restés ; nos deux séminaires de Québec et de Montréal ! Grâce à ces deux institutions, lors que le gouvernement constitutionnel fut établi, il y avait parmi les Canadiens-Français, autant et plus encore peut-être que parmi ceux d'origine britannique des hommes préparés aux luttes parlementaires. Panet, Papineau, père, Pierre Bedard, de Lotbinière, Taschereau, Blanchet, furent nos premières gloires politiques. Plus tard, Papineau, fils, Vallières, Viger, LaFontaine, Morin et une foule d'autres, marchèrent sur leur traces. La politique nous a aussi donné nos premiers écrivains : Bedard et Blanchet dans le *Canadien* de 1810—plus tard Morin et Parent. La poésie, timide à l'origine, se bornait à des sujets bucoliques ou didactiques ; telles furent les œuvres de Quesnel, de Mermet et de Bibaud. Plus tard la muse patriotique se leva pleine de tristesse ou de colère ; nous eûmes les dithyrambes d'Angers, de Barthe, de Turcotte et de Garneau. Puis vinrent Lenoir et Crémazie, précurseurs de la pléiade qui brille aujourd'hui. Bibaud, Garneau, Ferland et Faillon, bientôt firent connaître notre histoire. Garneau fit époque ; son livre est le point de départ des études historiques.

La science se cultivait dans nos collèges, MM. Bedard, Demers et plusieurs autres en étaient de dignes adeptes. Je ne mentionnerai que pour mémoire, le lycée de M. Wilkie, où se formèrent des hommes comme Andrew Stuart et Thomas Aylwin, aussi l'institution royale et l'université projetée avant cela, qui n'eurent point de résultats appréciables. La législation et les fabriques avaient établi des écoles de paroisse qui étaient déjà nombreuses en 1836, lorsque l'octroi nécessaire fut supprimé par le conseil législatif ; enfin plusieurs nouveaux collèges avaient surgi pour aider à ceux de Québec et de Montréal. Il y eut donc encore en 1837, un temps d'arrêt dans les progrès de l'instruction primaire ; mais l'instruction secondaire ou classique, dont lord Durham, dans son rapport, avait déjà signalé les résultats trop abondants selon lui, continuait à se répandre.

Si j'en viens aux institutions de la nature de celle que nous inaugurons aujourd'hui, je trouve que la première tentative de ce genre, fut faite en 1809. La société Littéraire établie à Québec cette année-là, prit pour devise *Floramus in nemoribus*, devise bien trouvée, puisque à cette époque, le territoire du lac Saint-Jean, n'étant point colonisé, on pouvait voir des murs de Québec, la forêt qui s'étendait jusqu'à la baie d'Hudson.

La société, la veille de la fête du roi George III, dont j'ai parlé au commencement de ce discours, donnait les prix d'un concours de poésie, ouvert pour célébrer les vertus du monarque. Une pièce anglaise composée par M. Flemming, et une pièce française par un poète qui avait pris le pseudonyme de *Canadensis* furent couronnées. Des discours furent prononcés par M. Romain, président de la société et par M. Louis Plamondon, une des gloires du barreau Canadien et qui dirigeait un de nos premiers journaux littéraires *Le Courrier de Québec*.

L'existence de cette première société ne fut pas de longue durée. Il en est de premières publications, des premières revues, des premières associations de ce genre comme des soldats qui montent les premiers à l'assaut ; ceux qui les suivent et qui triomphent ont à passer sur leur corps.

La société littéraire et historique de Québec fondée par lord Dalhousie en 1824 et qui existe encore aujourd'hui succéda après un assez long intervalle à la *Société Littéraire* de 1809. Elle a publié de nombreux Mémoires et les noms de quelques-uns des hommes les plus marquants des deux origines figurent parmi ceux de ses membres actifs. Elle a eu pour rivale depuis 1848 l'*Institut Canadien de Québec* vers lequel s'est portée de préférence la jeunesse instruite parlant la langue française.

La Société d'Histoire Naturelle, la Société Historique, la Société Numismatique et Archéologique établies à Montréal, le *Canadian Institute* de Toronto, la société de Géographie de Québec, l'Institut Canadien-Français d'Ottawa et plusieurs autres sociétés du même genre établies dans les autres Provinces de la Confédération auxquelles le Président vient de rendre un hommage bien mérité ont travaillé et travaillent encore à la propagation des sciences et des lettres.

La tâche qui appartient à de telles institutions est difficile dans un pays comparativement nouveau. Elle se compose de deux choses très différentes, le progrès des sciences et des lettres, en elles-mêmes, et leur vulgarisation. Il y a nécessairement là un peu de l'académie et beaucoup de la salle de conférence et de la bibliothèque publique. A mesure que l'instruction fait des progrès, que la littérature se forme et s'élève à de plus hautes régions, à mesure que les hautes carrières scientifiques se créent et se développent, les deux fonctions que je viens d'indiquer peuvent se séparer et des institutions ayant un caractère plus exclusif et plus élevé peuvent avec l'aide des gouvernements s'établir et prospérer.

Sommes-nous arrivés à ce point ? Il n'est plus temps de poser la question ; elle a été décidée par une autorité supérieure et impartiale qui a porté sur notre mouvement intellectuel et littéraire un jugement plus favorable que celui que nous oserions porter nous-mêmes.

J'ai fait une bien rapide et bien insuffisante esquisse de ce mouvement dans le passé pour la plus ancienne des Provinces de la Confédération. Dans ces dernières années combien ne s'est-il pas accéléré ? Les grandes universités Laval, McGill, Toronto, Lennoxville, Dalhousie, de nombreux collèges, des écoles normales, une organisation plus complète de l'instruction publique ont partout répandu le goût des sciences et des lettres. Les publications littéraires et scientifiques sont devenues nombreuses, les œuvres de nos écrivains sont connues maintenant en dehors de notre pays.

Pour nous, descendants des premiers colons, les temps sont bien changés depuis cette époque néfaste où nous étions comme je l'ai dit les déshérités de deux nations ! Aujourd'hui, notre nouvelle mère-patrie nous accorde une protection éclairée et nous ouvre la voie d'une prospérité et d'une importance sociale à laquelle il est difficile d'assigner des limites. D'un autre côté notre ancienne mère-patrie s'est souvenue de nous, elle a pour nous les procédés les plus gracieux et les rapports les plus avantageux s'établissent entre l'Ancienne et la Nouvelle-France comme aux jours de Colbert et de Talon.

La littérature n'a pas été étrangère à ce rapprochement, et si les sciences et l'industrie, par les trois grandes expositions de Paris, y ont eu une large part, on peut dire que nos historiens et nos poètes ont été les premiers à nous révéler à notre ancienne mère-patrie en même temps qu'ils lui montraient une des pages les plus glorieuses et les plus touchantes de son histoire, page, demeurée jusque-là dans l'ombre et dans l'oubli. Il se trouve du reste, ici, un de nos collègues qui est une preuve vivante de ce que j'affirme.

D'un autre côté, il semble que depuis quelques années les œuvres canadiennes en langue française sont mieux connues des populations anglaises du Canada, et qu'en revanche les poètes, les écrivains et les savants anglo-canadiens sont mieux appréciés de la population française.

Le moment était donc bien choisi pour convoquer, dans l'enceinte du parlement d'Ottawa, cet autre parlement littéraire et scientifique, moins bruyant que celui qui y siège d'habitude ; mais dont les débats sans passionner autant les esprits ne seront pas tout à fait sans importance et sans utilité.

Ici se rencontreront des hommes des deux nationalités, des hommes de toutes les nuances d'opinion, de toutes les parties du pays. Toutes les sciences fraterniseront entre elles, et la littérature et l'histoire donneront la main à la science.

La science a, dans ces jours d'épreuves pour l'humanité, une mission plus difficile que jamais ; sa responsabilité est aussi plus grande. On lui a reproché d'être entrée en guerre ouverte avec la religion révélée, de saper par un matérialisme destructeur toute idée de moralité, de nier enfin et l'action divine et la conscience humaine. D'un autre côté, les puissants agents physiques qu'elle a découverts et mis à la portée du vulgaire ont déjà donné à ces pernicieuses doctrines une sanction redoutable ; si on n'y prenait garde, les ruines morales que ces doctrines feraient dans les âmes seraient suivies de ruines matérielles bien terribles !

A ce point de vue, c'est une garantie bien rassurante que d'avoir à la tête de notre nouvelle institution un homme qui a lutté si longtemps, et avec tant de succès pour l'idée religieuse dans le domaine des sciences, et qui s'est acquis sous ce rapport une réputation bien méritée aux États-Unis et en Europe.

Dans l'ancien monde une réaction semble se faire en faveur de l'idée chrétienne. La dernière séance de réception à l'Académie Française vient de nous en donner une preuve. Cette grande compagnie couronne le talent littéraire partout où il se trouve; au barreau, dans la chaire chrétienne, à la tribune et dans les autres sections de l'Institut. Elle enferme dans sa vaste juridiction toutes les branches des connaissances humaines, car en toutes choses la science de bien dire et de bien écrire trouve son application. Biot et plusieurs autres savants ont été admis au nombre de ses membres, et tout dernièrement, M. Pasteur, si célèbre par ses découvertes sur les virus et les microzoaires, prononçait son discours de réception et faisait l'éloge de son prédécesseur, Littré, qui disciple du positiviste Comte, est mort cependant dans des idées toutes différentes.

Le discours du nouvel académicien est une revendication habile et éloquentes des droits que les vérités enseignées par l'école chrétienne ont à notre respect et à notre reconnaissance. Il fait voir à quelles ténèbres affreuses peut conduire la négation de tout ce que les siècles qui ont précédé le nôtre ont cru et vénéré. Tout, dit-il, dans la nature nous révèle l'existence d'un Dieu créateur et de l'âme humaine faite à son image. Il cite ces paroles de Littré: "Il faut un lien spirituel à l'humanité, faute de quoi il n'y aurait dans la société que des familles isolées, des hordes et point de société véritable."

Après avoir prouvé que la métaphysique, tant dédaignée par l'école positiviste, ne fait que traduire en nous la notion dominatrice de l'Infini, il proclame en termes éloquentes et de la plus grande élévation philosophique, l'existence de cette image de la puissance divine, qui est au dedans de l'homme, qui à certains égards est l'homme lui-même.

"Les Grecs, dit-il, nous ont légué un des plus beaux mots de notre langue, le mot enthousiasme, *en theos*—un dieu intérieur!

"La grandeur des actions humaines se mesure à l'inspiration qui les fait naître. Heureux celui qui porte en soi un dieu, un idéal de beauté et qui lui obéit: idéal de l'art, idéal de la science, idéal des vertus de l'Évangile! Ce sont là les sources vives des grandes pensées et des grandes actions. Toutes s'éclaircissent du reflet de l'infini."

J'ai peut-être trop longtemps abusé de la bienveillance de cet auditoire distingué. Dans tous les cas, j'aime à le laisser sous le charme des belles paroles que je viens de citer.

Je terminerai donc en remerciant Son Excellence le Gouverneur-général, au nom de tous, de l'intérêt qu'il prend aux sciences et aux lettres, et plus particulièrement de la part de la première section à laquelle j'appartiens, je le remercie de la place distinguée qu'il a si gracieusement donnée à la littérature française et à l'histoire du Canada, dans l'organisation de cette société.

PROCEEDINGS OF SECTIONS.

ADDRESSES AND PAPERS.

SECT. I.—French Literature, History and Allied Subjects.

- M. FAUCHER DE ST. MAURICE. "Discours d'inauguration."
 M. LE MOINE. "Nos quatre historiens modernes: Bibaud, Garneau, Ferland, Faillon."
 M. CHAUVEAU. "Coup d'œil sur les commencements de la poésie française au Canada et en particulier sur les poésies de F. X. Garneau."
 M. L'ABBÉ CASGRAIN. "Notre passé littéraire et nos historiens."
 M. MARCHAND. "Scènes d'une comédie inédite."
 M. LE MAY. "Politique et Religion." Poème.
 M. FRÉCHETTE. "Pensées de l'heure présente."
 M. L'ABBÉ TANGUAY. "Origines des familles Canadiennes."
 M. L'ABBÉ VERREAU. "Les commencements de Montréal."
 M. DE CAZES. "Quelques unes de nos sociétés littéraires."
 M. SULTE. "Les interprètes du Canada au temps de Champlain."
 M. DUNN. "Québec en 1900."
 M. L'ABBÉ BÉGIN. "Port-Royal."

SECT. II.—English Literature, History and Allied Subjects.

- New World Beginnings. (President's Address.) By Dr. DANIEL WILSON.
 The Establishment of Free Public Libraries in Canada. By Dr. A. TODD.
 The Last Defender of Jerusalem; a Poem in heroic verse. By Rev. ÆNEAS MCD. DAWSON.
 The Growth of the Intellect. By Dr. BUCKE.
 A Memoir of a U. E. Loyalist Family. By Mr. W. KIRBY.
 Language and Conquest. By Mr. J. READE.

SECT. III.—Mathematical, Physical and Chemical Sciences.

- Address by Dr. T. STERRY HUNT, President.
 Note on Zinc Sulphide. By Mr. MACFARLANE.
 Notes on Hydrodynamics. By Prof. LOUDON.
 Note on Jænisch's "Analyse Mathématique du jeu des échecs." By Prof. CHERRIMAN.
 On the Measurement of the Electrical Resistance of Electrolytes by means of the Wheatstone's bridge.
 By Prof. MACGREGOR.
 On the Transition Resistance to the Electric current at the bounding surface between amalgamated
 Zinc Electrodes and solution of Zinc Sulphate. By Prof. MACGREGOR.
 On Molecular Contraction in natural Sulphides. By Prof. CHAPMAN.
 On the law of facility of error in the Sum of n Independent Quantities, each accurate to the nearest
 unit. By Mr. CARPMAEL.
 A Symmetrical investigation of the Curvature of Surfaces. By Prof. JOHNSON.
 On the Motion of a Chain on a fixed Curve. By Prof. CHERRIMAN.
 On an Application of a certain determinant. By Prof. CHERRIMAN.
 On a Question of Probabilities. By Prof. CHERRIMAN.
 On the General Regulation of Civil Time. By Mr. SANDFORD FLEMING.
 The Utility of Geometry as applied to the Arts and Sciences. By M. BAILLARGÉ.

*SECT. IV.—Geological and Biological Sciences.**(A.—Papers actually read.)*

- Address by the President, Dr. A. R. C. SELWYN.
 Address by the Vice-President, Prof. G. LAWSON.
 On the Distribution of Northern, Southern and Saline Plants in Canada. By Prof. J. MACOUN.
 Descriptive Notes of a General Section from the Laurentian Axis to the Rocky Mountains, north of
 the 49th parallel. By Dr. G. M. DAWSON.
 On the Physical and Geological Features of the St. John River Valley. By Prof. L. W. BAILEY.
 Observations on the Anatomy and Development of the Cestodes. By Prof. A. RAMSAY WRIGHT.
 On Lacustrine Concretions from Grand Lake, Nova Scotia. By Rev. Dr. HONEYMAN.
 Illustrations of the Fauna of the St. John Group. By Mr. G. F. MATTHEW.
 Notes on the Birds of Hudson's Bay. By Dr. ROBERT BELL.
 On a New Classification of Crinoids. By Prof. E. J. CHAPMAN.
 On the Lower Cretaceous Rocks of British Columbia. By Mr. J. F. WHITEAVES.
 On Fossil Plants from the Cretaceous and Tertiary Rocks of British Columbia and the North West
 Territory. By Principal DAWSON.
 On the Importance of Economizing and Preserving our Forests. By Mr. W. SAUNDERS.
 The Life-history and Development of *Botrydium granulatum*. By Prof. G. LAWSON.
 On the Introduction and Dissemination of certain Noxious Insects. By Mr. W. SAUNDERS.
 On the "Quebec Group." By Dr. A. R. C. SELWYN.

(B.—Papers presented and taken as read.)

- On the Present Condition of the Mining Industry in Canada. By Dr. R. BELL.
 On the Recent Discovery of large Deposits of Zinc Blende on the North Side of Lake Superior.
 By Dr. R. BELL.
 On some supposed Annelid Tracks from the Gaspé Sandstones. By Mr. J. F. WHITEAVES.
 On the Glaciation of Newfoundland. By Mr. A. MURRAY.

Presented by Prof. A. Ramsay Wright :

1. Note on Segmentation of the ovum in *Thalassema*.
2. Note on Cranium of Pipe-Fish. (*Syngnathus*.)
By Prof. PLAVFAIR McMURRICH. (Ont. Agricul. Coll.)
1. Preliminary notice of Microscopic Organisms found in the tap-water of Toronto. By Mr. G. ACHESON. (Toronto Collegiate Institute.)

CONCLUDING GENERAL SESSION.

Saturday, 27th May, 1882.

In accordance with the arrangements made on Thursday morning last, the Society assembled in general session at 12 o'clock, in the Railway Committee-room—the President in the chair. All the members of the Provisional Council were present, with the exception of Mr. Goldwin Smith.

The minutes of the session of Thursday last were read by the Honorary Secretary and confirmed.

The Hon. Secretary was then called upon by the President to read the following Report of the Council, prepared since the last general meeting.

The Council beg leave to submit to the Royal Society in general session the following recommendations :—

1. That a letter be prepared conveying the friendly greeting of the Society to the several Scientific and Literary Societies in the Dominion, and inviting each of them to elect annually one of its members as a delegate to any meeting of this Society, such delegate to have, during his term of office, the privilege of taking part in section meetings for reading and discussion of papers; and asking also that such delegate be empowered to communicate annually a short statement of original work done and papers published, and to report on any matters in which the Society may usefully aid in publication or otherwise. That copies of the transactions of this Society be sent to all local societies so associated. That such circulars be sent to the following :—

Literary and Historical Society of Quebec.
Natural History Society of Montreal.
Canadian Institute, Toronto.
Natural History Society of New Brunswick.
Nova Scotia Institute of Natural Science.
Literary and Scientific Society, Ottawa.
Historical and Scientific Society of Manitoba.
Entomological Society of Ontario.
Institut Canadien, Quebec.
Historical Society of Montreal.
Numismatic Society of Montreal.
Historical Society of Halifax.
Geographical Society of Quebec.
Institut Canadien-Française, Ottawa.

And such other societies as the Council, on inquiry, may deem deserving of such distinction.

2. That so soon as the Society shall be in possession of funds available for such purposes, the Council may offer prizes or other inducements for valuable papers, or may aid researches already begun and carried so far as to render their ultimate value probable.

3. That the Council be empowered to fix the next place of meeting for either Toronto, Quebec or Halifax, provided that an invitation from either city and contributions towards expenses of the Society can be secured. That the time of meeting be in September, 1883.

4. That His Excellency the Governor-General be respectfully requested to continue the correspondence with the Council of the British Association, and to invite a delegation to meet with this Society at its meeting in 1883, and that invitations be extended through His Excellency to the Institute of France, and to the Association Française, the Association of Naturalists of Germany, and to the American Association.

5. That communication be opened with the Hudson's Bay Company and with the Pacific Railway Company, with reference to obtaining specimens for the contemplated Canadian Museum, and

that a circular be prepared setting forth the wants of the Society in this respect, and with suggestions as to collecting and transmitting specimens, and that it be addressed to all persons able to aid in the matter in the North-Western and North-Eastern Territories and British Columbia.

6. That the Council ascertain as soon as possible the number and extent of the papers presented to this meeting which deserve publication, and the probable expense of properly illustrating the same; that communication of the facts be made to H.E. the Governor-General, with reference to obtaining a parliamentary grant, and that printing be commenced so soon as assurance can be obtained of such grant.

7. That the following shall be entitled to receive, *ex officio*, copies of the transactions of the Society:—

- The Lieutenant-Governors of the Province of the Dominion and Newfoundland.
- The Members of the Privy Council of Canada.
- The Chief Justice and Judges of the Supreme Court of Canada.
- The Speakers of the Senate and House of Commons.
- The Chief Justice of each of the Provinces.
- The Premier of each Province.
- The Speakers of the Legislatures of the Provinces.
- The Minister or Superintendent of Education in each Province.
- The Universities, Library of Parliament and Libraries of Provincial Legislatures.

8. That the 24th of May, being the anniversary of the founding of the Royal Society of Canada, under the direction of His Excellency the Marquis of Lorne, all prizes, diplomas or other honorary gifts shall be presented on that day.

The first of the foregoing recommendations having again been read, it was amended, on motion of Lieut.-Col. Denison, seconded by Mr. G. Stewart, by adding the following words to the end thereof, "subject, however, to the vote of the Society."

The second recommendation having again been read, it was amended on motion of Dr. Lawson, seconded by Mr. Macfarlane, by adding the following words to the end thereof: "but that no part of the Society's general funds shall be devoted to such purpose, without the vote of the Society."

The third recommendation having again been read, it was amended, on motion of Dr. Grant, seconded by Rev. Mr. Dawson, by providing "that the next meeting of the Society shall be held at Ottawa, in the month of May, 1883."

The fourth, fifth, sixth, seventh and eighth recommendations were then again read and adopted.

The following resolutions, sent up from the respective sections, were then formally proposed and adopted:

1. That the attention of the Society be directed to the subject of the preservation and planting of forests by public and private means, as an important object to be promoted by this Society in connection with the International Forestry Association. (From the Geological and Biological Section.)

2. That a memorial be transmitted to the Dominion Government by the Royal Society of Canada, praying that

- (1) All scientific works in foreign languages,
- (2) All scientific periodicals,
- (3) All transactions of scientific societies

be included in the list of articles admitted free of duty into this country. (From the Geological and Biological section.)

3. That in view of the general importance of the question of regulating time throughout the world, this section recommends that the Council co-operate, as far as practicable, in the movement towards that end, and that steps be taken to secure the representation of Canada in the International Conference, to determine a zero meridian, now contemplated by the Congress of the United States. (From the Mathematical, Physical and Chemical section.)

The reports of sections as to election of officers of the same having been called for,

Mr. J. M. Le Moine reported that the following gentlemen had been appointed for Section One, French Literature, etc.

<i>President,</i>	- - -	J. M. LE MOINE, Esq.
<i>Vice-President,</i>	- - -	FAUCHER DE ST. MAURICE, Esq.
<i>Secretary,</i>	- - -	B. SULTE, Esq.

Mr. George Stewart made the following report for Section Two, English Literature, &c. :

<i>President,</i>	-	-	-	Dr. DANIEL WILSON.
<i>Vice-President,</i>	-	-	-	GOLDWIN SMITH, Esq.
<i>Secretary,</i>	-	-	-	GEORGE STEWART, JR., Esq.

Dr. T. Sterry Hunt made the following report for Section Three, Mathematical, Physical and Chemical Sciences :

<i>President,</i>	-	-	-	Dr. T. STERRY HUNT.
<i>Vice-President,</i>	-	-	-	C. H. CARPMAEL, Esq.
<i>Secretary,</i>	-	-	-	Prof. CHERRIMAN.

Dr. Selwyn made the following report from Section Four, Geological and Biological Sciences :

<i>President,</i>	-	-	-	Dr. SELWYN.
<i>Vice-President,</i>	-	-	-	Prof. LAWSON.
<i>Secretary,</i>	-	-	-	J. F. WHITEAVES, Esq.

The Society then proceeded to the election of President, Vice-President, Honorary Secretary and Honorary Treasurer.

Messrs. George Stewart and G. F. Matthew were appointed Scrutineers of the said election.

It was unanimously agreed that the following gentlemen be appointed Officers of the Society for the ensuing twelve months :

<i>President,</i>	-	-	-	Dr. DAWSON.
<i>Vice-President,</i>	-	-	-	Hon. Dr. CHAUVEAU.
<i>Honorary Secretary,</i>	-	-	-	JOHN J. BOURINOT, Esq.
<i>Honorary Treasurer,</i>	-	-	-	Dr. J. A. GRANT.

The following votes of thanks were then adopted :

1. That the thanks of this Society be communicated to the Speakers of the Senate and House of Commons for the use of the Rooms occupied during its meeting, and for other arrangements which have greatly facilitated the work of the Society.

2. That the thanks of this Society be communicated to the Hon. Minister of Railways and Canals for the courtesy he has extended to the members of the Society who have travelled by the Intercolonial Railway ; also to the Managers of the Grand Trunk, and the Quebec, Montreal, Ottawa and Occidental Railways, for the facilities which they have given members to reach Ottawa.

The thanks of the Society were then proposed and given *nemine contradicente* to the President, Vice-President, Honorary Secretary, and other members of the Council, who respectively returned their grateful acknowledgments.

The President then submitted the following draft of an Address to His Excellency the Governor General :

To His Excellency the Right Honorable Sir JOHN DOUGLAS SUTHERLAND CAMPBELL, (commonly called the Marquis of Lorne,) Knight of the Most Ancient and Most Noble Order of the Thistle, Knight Grand Cross of the Most Distinguished Order of St. Michael and St. George, Governor-General of Canada and Vice Admiral of the same, &c., &c.

May it please Your Excellency,—The members of the Royal Society of Canada, before separating, are desirous respectfully to express to Your Excellency their gratitude for the patronage extended to this Society, the action of Your Excellency in its origination, the interest taken in its proceedings and the generous hospitality extended to it during the meeting.

We have the honour to be Your Excellency's humble servants.

The Address was adopted *nemine contradicente*, ordered to be engrossed, and signed and presented by the Council on behalf of the Society.

The President then formally declared the Society adjourned until the month of May, 1883.

THE ROYAL SOCIETY OF CANADA.

HONORARY PRESIDENT AND PATRON :

His Excellency THE GOVERNOR-GENERAL, MARQUIS OF LORNE, K.T., G.C.M.G., P.C., etc. etc.

OFFICERS--1882-83.

PRESIDENT . . . J. W. DAWSON, C.M.G., LL.D., F.R.S.
 VICE-PRESIDENT . . . HON. P. J. O. CHAUVEAU, LL.D., Docteur ès Lettres.

OFFICERS OF SECTIONS.

SECT. I.—French Literature, History and Allied Subjects.

PRESIDENT . . . J. M. LEMOINE, Membre de la Société Américaine de France.
 VICE-PRESIDENT . FAUCHER DE ST. MAURICE, Membre de la Société des Gens de Lettres de France.
 SECRETARY—B. SULTE, Esq.

SECT. II.—English Literature, History and Allied Subjects.

PRESIDENT . . . DANIEL WILSON, LL.D., F.R.S.E.
 VICE-PRESIDENT . . . GOLDWIN SMITH, D.C.L.
 SECRETARY—GEO. STEWART, Jr., Esq.

SECT. III.—Mathematical, Physical and Chemical Sciences.

PRESIDENT . . . T. STERRY HUNT, LL.D., F.R.S.
 VICE-PRESIDENT . CHARLES CARPMAEL, M.A.
 SECRETARY—PROF. CHERRIMAN, M.A.

SECT. IV.—Geological and Biological Sciences.

PRESIDENT . . . A. R. C. SELWYN, LL.D., F.R.S.
 VICE-PRESIDENT . . . GEORGE LAWSON, Ph.D., LL.D.
 SECRETARY—J. F. WHITEAVES, F.G.S.

HONORARY SECRETARY J. G. BOURINOT, B.A., F.S.S.

HONORARY TREASURER J. A. GRANT, M.D., F.G.S.

The Council for 1882-83 comprises the President and Vice-President, the Presidents and Vice-Presidents of Sections, the Honorary Secretary and the Honorary Treasurer.

