

Council:

THE PRESIDENT & VICE-PRESIDENTS.

E. CULL, ESQ.
F. W. CUMBERLAND, ESQ.
SANDFORD FLEMING, ESQ.
H. MELVILLE, ESQ., M.D.
WILLIAM THOMAS, ESQ.

Secretary:

S. FLEMING, ESQ.

Corresponding Secretary:

F. W. CUMBERLAND, ESQ.

Treasurer:

DALRYMPLE CRAWFORD, ESQ.

Curator:

F. F. PASMORE, ESQ.

In the absence of the President, Captain Lefroy occupied the Chair. The Secretary read the following

REPORT.

GENTLEMEN,—Your Committee have much pleasure in reporting the continued successful progress of your Institution. A Royal charter has been obtained, by means of which, the objects and interests of the Society have been extended, and its powers established and increased.

Many new members have been admitted during the past session, and your committee are convinced that a more extensive publication of the Transactions of the Society alone is wanted to insure for it that substantial support which is necessary for its success, and they are strengthened in this belief by the expressions of favour and interest which have been accorded to it generally by men of education and scientific pursuits in the Province.

A focus around which the many individual efforts of practical science may be drawn is much needed in a country where communication and co-operation have not as yet been easy of attainment.

Your Committee are of opinion that the time has now come when every effort should be made to embrace as broad a field of practical science, in the future operations of the Society, as possible. They trust that the Canadian Institute may be made in practice, as well as in principle, to comprehend the various objects, which, in older and more populous communities, are commonly appropriated by distinct associations, under the title of Societies of Art, Academies of Science, and Literary or Historical Societies, in order that by facilitating an exchange of knowledge, and inducing a community of purpose and feeling between Scientific, Literary, and Practical men, and by uniting their efforts in promoting the purposes of the Charter, the capabilities of the Province may be more speedily developed, and its interests promoted on a sound and enduring basis.

The Committee in giving utterance to these aspirations desire to bring to your notice the encouraging overtures which have been made by parties connected with the Toronto Athenæum, in view of an union of the two bodies—and would recommend that they be met in such a liberal spirit as may result in the future co-operation of both Societies.

Several papers upon subjects of general and local interest, have been communicated during the two first sessions;—Amongst them, a review of the several clauses in the Surveyor's Act of 1849, by Mr. J. Stoughton Dennis.

On the use of the Telescope, as applied to field practice, by Mr. J. O. Brown.

Upon the ameliorating influences of the climate of Canada, by Mr. F. F. Pasmore.

On the formation of the Peninsula and Harbour of Toronto, by Mr. S. A. Fleming.

On Lake Harbours, &c., by Mr. Edward L. Cull.

On the Mineral Productions and Geology of Canada, illustrated by the Map and Models of his Official Survey, by Mr. Logan.

On the effects of Tides, by Mr. Ellis.

On the application of wire to the construction of Bow String Bridges, by Mr. Hanvey.

On the Geology of the Niagara Falls, by Mr. Ridout.

On the Ebb and Flow of water in American Lakes, by Mr. Brunel.

On the management of Engineering works, by Mr. Ellis.

On Piling, as practised and applicable to works upon our lakes and navigable waters, by Mr. Kivas Tully.

On the supply of water to Toronto, by Mr. Cull.

On Crib work, as applied for foundations and piers, by Mr. Brunel.

On the works at Portsmouth dock yards, by Mr. Cumberland.

On Tubular bridges, by Mr. Brunel.

On the effects of different grades upon the economical working of railways, by Mr. J. O. Brown.

Amongst others promised and in preparation, are—

A paper upon Concrete, as applied in foundations under water, by Mr. Cumberland.

On the economical application of native materials of construction, by Mr. Thomas.

On the varieties of native timber with specimens, by Mr. J. S. Dennis.

On the application of screw piles and moorings, by Mr. Brunel.

Your Committee recommend that so soon as the present session shall have terminated; active measures be taken to determine a programme of the papers to be read before the Institute, and of its general proceedings during the session of 1853 and 1854.

The Chairman, then said, had the philosopher who first uttered the aphorism about big books, applied his remark to *long speeches*, I fancy a still more universal assent of mankind would have immortalized his wisdom. I do not rise now to inflict that '*great evil*' upon you, but as occupying, unworthily, this evening, in the absence of our President, the Chair which I earnestly desire to see hereafter filled by some gentleman of far superior claims; it seems impossible to allow the Annual Meeting of this Institute, especially when it is the first Annual Meeting held under our recently-acquired Charter, to pass, without offering some remarks in relation to the report which has just been read, and to the present and future prospects of the Institute. Indeed, if the custom of those societies in whose steps we hope to follow, had not prescribed this course, the presence of the many visitors we have the pleasure of seeing here to-night, would have made the temptation irresistible to take this opportunity of making better known what this Society is, and what it aspires to become. Here I cannot do better than quote the exact words of the Act of Incorporation:—"A Society for the encouragement and general advancement of the Physical Sciences, the Arts and the Manufactures in this part of our dominions, and more particularly for promoting the acquisition of those branches of Knowledge which are connected with the professions of Surveying, Engineering, and Architecture, being the Arts of opening up the wilderness and preparing the country for the pursuits of the Agriculturist, of adjusting with accuracy the boundaries of Properties, of improving and adorning our cities and the habitations of our fellow subjects, and otherwise smoothing the path of civilization, and also being the Arts of directing the great resources of power in Nature for the use and convenience of man as the means of production and of traffic both for external and internal trade, and materially advancing the development of the Resources and Commerce of the Country; and have commenced the formation of a Museum for collections of Models and Drawings of Machines and Constructions, New Inventions and Improvements, Geological and Minera-

logical Specimens, and whatever may be calculated, either as Natural Productions or Specimens of Art, to promote the purposes of Science and the general interests of society." It is to be regretted, I think, that general Literature is rather implied than expressed, in the enumeration of objects whose cultivation, it is hoped to encourage, by the powers conferred by this Charter. It is as possibly considered, that even as the "king himself is served by the field," so must every special department of knowledge derive its support from this which is the common parent of all. At all events, since no one now esteems it a "kind of dishonour upon learning to descend to enquiry or meditation upon matters mechanical," so neither (to borrow another quotation from the same author,) does any one now doubt that the men, (and we have such among us,) who could obey the counsel of the alchemist, "to sell their books and to build *surgeons* omitting and forsaking Minerva and the Muses, as *barren* vaines, and relying upon *Vulcan*," are on that account unwilling, unworthy, or indisposed, to listen to those of other tastes and other habits, when they offer them the fruit of their studies. Such then, is the character and the ambition of the Canadian Institute. It aspires, as the Report just read informs us, to supply to Upper Canada, the place of those societies, which every other civilized country possesses under the denominations of literary, or philosophical, or professional societies or academies, or whatever title they may prefer, to express ends which are essentially the same in all; but it aims to do this modestly and gradually, availing itself first, and principally, of those elements which offer themselves spontaneously in the progress of the country. Does any one here question that this populous Province, with its skilled and learned professions, its universities, its halls of education, possesses the intellectual resources upon which such a thing can be based, or believe that, possessing them, there is not spirit, energy or unanimity to turn those advantages to account? I cannot think so. It is surely time that what the sister capitals, Quebec and Montreal, have now possessed for many years should come into being here. That there should be in Upper Canada, a centre to which the treasures of experience, observation and discovery, of this generation should naturally flow—in which, as in a focus, the attainments of her most gifted sons, may, by degrees, be brought to bear on objects of universal interest, and by whose example and influence those pursuits may be encouraged, which extend the bounds of human knowledge, while they promote, in a high degree, the happiness of all who follow them. It is the distinctive character of this Institute, and in my opinion, the best pledge for its healthy and vigorous progress, that its commencement has been eminently practical. The gentlemen who founded it, satisfied a want of their own before they extended their thoughts to a provision for a public want, and for posterity. I may refer to the second clause of the 5th section of the bye-laws, for the best proof which can be given of the spirit in which it has been formed. To disdain the day of small things,—to reject the seed pearls that are within our reach, because the pearls of price lie deeper than we can yet dive for them.—this is no design of the founders of this association, neither is it intended that the papers read here shall be laid by in the Secretary's desk, to be published in the Greek Calends, but on the contrary, by timely publication, to secure to all the members, absent or present, their share of instruction, their interest in its proceedings, and to the authors of papers, that pleasure, which like the charms of *Desdemona*, "age cannot wither, or custom stale" of seeing them in print as soon as possible. Every year the plough is obliterating the last traces of our predecessors upon this soil. Every year the axe lays low some invaluable witness to the ages which have elapsed since populous villages of another race were scattered far and wide through our now lifeless forests. We are fast forgetting that the bygone ages even of the new world were filled by living men, and fast losing by neglect, all