

pardoned for dwelling a moment upon the claims of that publication to our active and zealous support. The advantages of a ready medium of publication, its tendency to encourage the preparation of papers; to elicit, and to attract as it were to itself, by degrees, the information and knowledge which is afloat in the community, are so great that it may seem superfluous to insist upon them, but it may be scarcely less valuable, I conceive, as an index of the life that is in us; a criterion of the actual state of scientific knowledge in Upper Canada, and a permanent evidence of the widening basis, the expansive growth of those pursuits, which it is the object of this Institute to combine and strengthen. Let us hope, that while in the practical departments of the mechanic, the engineer and the architect, it witnesses the treatment of greater, more important, and more various subjects every year, as the industrial progress of the country will cause it to do; so also there may appear the necessity for such an improvement in the standard of the original and selected articles on scientific subjects, as may shew increasing strength, and a higher faculty, in that class of readers. It is greatly desirable at present that our individual endeavours be given to extend its circulation, and to put it upon a footing to yield some just remuneration for the editorial labour at present bestowed gratuitously upon it.

It is with great pleasure, Gentlemen, that I am permitted to announce that the Council has decided to offer two medals for competition in the session of 1853-4.

One medal of the value of £10, for the best comprehensive essay or paper on the Public Works of Canada, their commercial value and relations to a general system of American Public Works; their characteristics in an engineering point of view, cost and other particulars, to be illustrated by all necessary maps, plans, or drawings.

And, one medal of the value of £10, for the best essay or paper upon the physical formation, climate, soil, and natural productions of Upper Canada, to be also illustrated by all necessary maps or diagrams.

The amalgamation of the Toronto Athenæum with this Society, a subject referred to in the Annual Report of the Council, promises, I am most gratified to be enabled to state, to be speedily carried into effect. It will give us the advantage of the Library, which that institution owes in great measure to the persevering and indefatigable exertions of its most efficient Secretary, Mr. S. Thompson, and remove all appearance of rivalry or division of forces in a cause in which all should combine.

It would be doing an injustice to this Society were I to omit, on this occasion, to mention, on any false grounds of delicacy, a circumstance which cannot be regarded as unimportant, in reference to the progress of the physical sciences in Canada. I allude to the intention, officially expressed by the authorities under whom I have the honour to be employed here, of withdrawing at an early period the military detachment by which a series of observations in Magnetism and Meteorology has been maintained in this neighbourhood, since the year 1840. Naturally deeply

interested in the continuance of enquiries which have absorbed the best years of my own life, and in whatever can bring credit to a country to which I am bound by very strong ties, I cannot but hope that means may be devised in the Colony for maintaining a Physical Observatory at Toronto, upon a scale fully adequate to the continued investigation of the numerous and interesting subjects of enquiry, which it has hitherto cultivated; and with such additions as in abler hands may make it an honour to the country. It is not for me, on the point of resuming a purely military position, to concern myself unduly in a civil and colonial question; but, neither, on the other hand, is it for me, in the office to which you have been pleased to call me, to neglect to call your attention to a question in which the public opinion will probably have its due weight, and to which the Canadian Institute, as a body, cannot be indifferent.

I have now, Gentlemen, trespassed sufficiently long upon your patience. This Society has a dignified, an honourable and a patriotic object before it; the field is wide, and ready for the harvest; if the labourers are still few, and if much of that knowledge, contingent upon a thousand advantages never as yet brought within our reach, which alone can truly appreciate or encourage their exertions, is at a low point among us, let us not doubt that it will gain ground with rapidity, and receive new impulses, and new rewards, from every endeavour we make to carry into effect the objects of our incorporation. The talent and the energies which can overcome disadvantages, can unquestionably be looked for as confidently in our body, as in any similar society. I think it might be said, are as unquestionably present—but this will be best shewn by the event. With harmony and mutual respect among ourselves; with a liberal disposition, as a body, to encourage whatever may justly claim our countenance, and as individuals to listen to whatever has a just claim to respectful attention, although, as will often happen, the subject may be of little interest, perhaps scarcely intelligible, to ourselves; we shall see the Canadian Institute more respected, because more useful, every year, and have the reward of witnessing our society, grow with the growth, and strengthen with the strength, of a country whose progress in every element of material prosperity, will bear comparison favourably with that of any other in the world.

**On the Rocks of Canada: by W. E. Logan, F.R.S., and G.S.,
Director of the Geological Survey.**

(Communicated to the Geological Section of the British Association, at the Meeting at Ipswich in 1851, and ordered to be printed in full in the Report.)

In the present paper it is my purpose to place before the Association, in as condensed a form as possible, one or two of the main features of the physical structure of Canada, ascertained in the progress of the geological survey now carried on in the country, under my direction, by the authority of the provincial government.

With the exception of the drift, the country is composed of rocks, none of which are newer than the carboniferous epoch. The general geographical distribution of these rocks, as far as ascertained, and as connected with the physical structure of the bordering States of the American Union, on the one hand, and the sister British Provinces on the other, is represented on the map which is displayed to view.