

of the higher work of pure science in various departments, without neglecting those immediate practical results which the country reasonably looks for as evidence of the enlistment of science in the service of the people.

The volume of Transactions now issuing from the press will, I believe, be found in some respects in advance of its predecessors, and do no discredit to the representatives of Canadian letters and science. I have already referred to some of the contributions embodied in the work of Sections I. and II., when inviting to a line of research, in which the biologist, no less than the philologist and the *littérateur*, will find a legitimate field. The contribution to Section III. will also be found to include valuable work, alike in pure physics and mathematics, and in their practical application. The council of the society had occasion during the past year to press on the Government the desirableness, in the interest of our commercial navy, of carrying out a systematic hydrographic survey, not only in the Gulf of the St. Lawrence, but along our whole Atlantic and Pacific coasts, so as to follow up the work already so efficiently executed by the United States Geodetic and Coast Survey. In connection with this, attention may be fitly directed now to a valuable paper on "Tidal Observations in Canadian Waters." I may also be permitted, without invidious distinction, to note in Section IV. the continuance, by Mr. Matthew of St. John, of his description of the Cambrian fossils, adding considerably to our knowledge, and keeping Canada in advance of other parts of the continent on this subject. A contribution by Prof. Ramsay Wright on the anatomy of an interesting group of fishes, will, I believe, be found to introduce a style of work of which little has hitherto been done in

Canada. The catalogue of Canadian butterflies, by Mr. Saunders, renders our knowledge more complete and systematic; and gives information as to their local distribution, which may be of practical significance in relation to a branch of animal life, which, however beautiful, is regarded with well-grounded disfavour by the agriculturist. Sir William Dawson's paper on the latest Cretaceous discoveries of fossil plants in the North-West, adds to North American geology a new horizon of Lower Cretaceous plants not previously known, including a number of novel and interesting species. I may also refer here to the contribution by Professor Chapman of a piece of local economic geology in his account of the Wallbridge hematite mine, in order to note in passing that this was, I believe, one of the deposits resorted to by the aborigines, and used as a pigment. Among the primitive native implements in the Redpath Museum, at Montreal, may be seen the antler picks and shells used by the Indians in collecting the hematite for their own purposes.

In this slight and very partial glance at some among the subjects treated of in the new volume, my notice is necessarily meagre, as I have only had access to some of its detached sheets; and therefore cannot pretend to aim at any exhaustive review of the work embraced in its varied contents. By our very constitution, as a Society, alike scientific and literary, the range of themes is necessarily comprehensive and diversified. In all alike, we shall ever, I trust, set before ourselves a lofty standard; finding in literature a stimulus to the highest culture, and in science the motive to a reverent, yet fearless search for all truth.—*From advance sheets of Proceedings of Canadian Royal Society.*