

In January, 1886, a large deputation representing the British Association, and the Royal Society of Canada, with representatives of the Board of Trade of Montreal, waited on the new Minister of Marine, the Hon. G. E. Foster, and also on the Premier, Sir John Macdonald. The matter was favourably received and fully discussed; and in the official answer it was stated that while the Government was fully sensible of the importance of establishing stations for continuous tidal observations in Canadian waters, it did not propose at that time, owing to the large expenditure on surveys and explorations in other directions, to undertake the additional expense involved; it was, however, fully alive to the importance of the matter, and hoped in the near future to be able to carry out a work so necessary and useful to the commercial interests of the country.

On the return of the Hudson's Bay expedition, a new source of expenditure arose; as the Government undertook to pay half the cost of a re-survey, by the British Admiralty, of part of the Lower St. Lawrence. In the summer of 1887, however, Lieut. Gordon, R.N., who had been in command of the expedition to Hudson's Bay, was authorized to make some test observations at a few points by means of the tide-staff, with a view to ascertaining how far the accepted tidal 'Establishments' were to be relied upon. These observations were taken at Georgetown, P.E.I., at Louisburg, O.B., at Pictou, N.S., and at Port Hawkesbury in the Strait of Canso. In his report on this work, Lieut. Gordon explains that the object of these observations was to show to what extent the means now in the hands of navigators for the prediction of the tides on the coasts of Canada were in error; and he finds the results to show, as far as they go, that the means of prediction are very imperfect, and in some cases (such as the Strait of Canso) actually misleading. While admitting that these observations were too few in number and too rough in their nature to found any conclusions upon, Lieut. Gordon considers that the results certainly strengthen the opinion that the whole question of the determination of tidal constants should be taken up in Canada, and a number of stations established for taking tidal observations; as these would be of the greatest practical value to seamen. He further points out the special value which this work will have when completed, as it will enable an intelligent ship master not only to see at what time the tide will be high or low, but also to see at once how the tidal current is setting his ship, when once the currents are charted for the waters of the Gulf.

As Staff Commander Maxwell, R.N., was at that time carrying on the re-survey in the Lower St. Lawrence, his attention was called to the memorial of the committee of the British Association, and he was asked by the department to state the nature and extent of such tidal observations as he was making. His reply is to the effect that he was doing what he could to observe the tides and currents with the means at his disposal; but that they were confessedly imperfect, and were confined to a limited area, and did not necessarily establish any comparison with any other portion of the river. To do this work in a comprehensive way, he considers the most trustworthy method to be the establishment of self-registering tide gauges at various points in the River and Gulf of St. Lawrence; with one or more vessels from which to observe day by day the condition of the tidal streams under varying states of wind and weather.

Up to the time of the accession to office of Sir C. Hibbert Tupper, K.C.M.G., as Minister of Marine in the autumn of 1888, no steps had been taken to carry out the