APR J BII

## REPORT

OF.

## W. BELL DAWSON, C.E.

## SURVEY

OF

## TIDES AND CURRENTS IN CANADIAN WATERS.

OTTAWA, 13th January, 1894.

W. P. Anderson, Esq., C.E., Chief Engineer, Department of Marine and Fisheries.

Sir,—I have the honour to submit the following report with regard to the Survey of Tides and Currents in Canadian waters.

At the present stage which this work has reached, it may be well to begin by reviewing concisely the representations that have been made during the past years in bringing this matter before the notice of the Government, and the steps that have already been taken.

As long ago as the meeting of the British Association held in Montreal in 1884, the importance of publishing tide tables for Canadian waters, and the necessity of establishing stations for tidal observations was discussed. The Association adopted a resolution drawing the attention of the Government of the Dominion to the matter, and also appointed a committee to collect information and make representations to the Government regarding it. The committee consisted of Dr. A. Johnson, chairman; Professor J. G. MacGregor, of Halifax; J. B. Cherriman, of Toronto; H. T. Bovey, of Montreal; and C. Carpmael, Director of the Meteorological Service. The Montreal Board of Trade were at the same time considering the question independently, and they concurred addressing a strong memorial on the subject to the Dominion Government. Ship owners and masters of ships were also practically unanimous as to the pressing need for knowledge on the subject of the tides and currents.

During the following sessions of Parliament, petitions and representations were made through the then Minister of Marine. In reply, this Minister stated that owing to the outlay on the Georgian Bay Survey, and the expedition to Hudson's Bay during the summer of 1885, the Government did not propose to take action in the matter of tidal observations at that time.

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