

EARLY REPRESENTATIONS, AND COMMENCEMENT MADE.

The importance of publishing tide tables for Canadian waters and the necessity for tidal observations was discussed as early as 1884. The question was taken up at a meeting of the British Association held in Montreal in that year; and the Montreal Board of Trade were also considering the matter independently. Ship owners and masters of vessels were practically unanimous as to the pressing need for knowledge on the subject of tides and currents; and they united with other bodies in addressing a strong memorial on the subject to the Dominion Government. During the re-survey of the St. Lawrence, in 1887 and 1888, the matter received some attention. Various representations were made and petitions addressed to the Minister of Marine and Fisheries until 1889, in which attention was drawn to the average marine loss of \$2,782,000 per annum, as well as 239 lives; a certain proportion of this loss of life and property being undoubtedly due to imperfect knowledge of the currents. It was also urged that if the number of narrow escapes of vessels from disaster or wreck were known, this would add a powerful argument in favour of proceeding with the work forthwith.

A practical commencement was made in the following season of 1890, under the supervision of the Director of the Meteorological Service. By 1893, gauges had been placed at St. John, N.B., Quebec and South-west point, Anticosti; as well as a trial station on the Magdalen islands in the middle of the Gulf of St. Lawrence. The preliminary steps above referred to, and the early attempts made, are fully described in the first Report of Progress (1).

GENERAL METHODS EMPLOYED.

At the outset the chief desire of the shipping interests was to obtain information regarding the tidal streams and currents on the leading steamship routes. Many wrecks were attributed to unknown currents, and definite information on the subject was of primary importance. The preliminary information collected served to show that extremely little was known regarding the tides and currents of Canada, beyond the "Establishment" at a certain number of ports, and an approximation to the range of the tide; such data having been determined during the early Admiralty surveys of these coasts. There was also a crude attempt to publish tide tables for Quebec, by a difference of time from London Bridge. Some early tidal observations were found at Halifax in the archives at the Dock yard. The gathering of this fragmentary information, and the beginning of regular observations at a few places in a somewhat tentative way, was all that had been done