

Careful attention was also given to ascertain the levels of extreme high water in previous years at the more important localities; good values for extreme low water being obtained during this season itself. When these levels are fully worked out, much information of permanent value will result.

Observations of Currents.—Observations of the more important currents were secured in the regions in which the tidal observations were taken. In Northumberland Strait the current was observed on the north side of Pictou Island during three months, by noting the turn of a spar buoy anchored $\frac{1}{2}$ mile from shore in four fathoms of water. This will give the time of the turn of this current in the open Strait with relation to the tide at Pictou, the port of reference.

The turn of the current in First Narrows, Vancouver, was observed during 6½ months by the lightkeeper at Prospect Point; which will serve to make known the time of slack water by referring to the tide tables now issued. A preliminary result from one month's observations, was worked out in time for publication in the tide tables for 1902.

I have, Sir, the honour to remain,
Your obedient servant,

W. BELL DAWSON,
In charge of Tidal Survey.

*Note on the relation of the Range of the Tide in the Two Arms of the Bay of Fundy;
at Noel Bay in Minas Basin, and in Cumberland Basin.*

Observations have just been received through the courtesy of the Hydrographer to the Admiralty, taken at Noel Bay for 21 days in June, 1859; and from a careful comparison of these with the observations at Cumberland Basin, for an equal period in which the moon's phases and distance were in close correspondence, it appears that the range of the tide at Noel Bay, is from 12 to 19 per cent greater than in Cumberland Basin. An average value of 15 per cent is probably as good a result as can be obtained from so short a period of observation in different years.

W. B. D.