value of this is evident, as the observations are simultaneous, and they are reduced to the same datum level in both Cumberland Basin and Baie Verte. The original observations could not be procured in the form of notes; but as the diagram is on so large a scale, the elevations of the tide, day by day, can be very closely scaled. The observations extend from 13th August to 31st December for Cumberland Basin; and at Baie Verte from 11th August to 16th November, with a good many omissions, however, in September. The year of the observations is not stated; but it must be 1893, from the recollection of the officer at present on the works, and from comparison of the spring tides with the moon's phases in that year.

These tide levels furnish the best means available for obtaining the elevation of Mean Sea Level at the head of the Bay of Fundy as compared with the Gulf of St. Lawrence. It is to be noted, however, that from such observations, the value obtained for mean sea level is based upon the average half-range from low water to high water, while the form of the tide is ignored. The tidal curve at the head of the Bay of Fundy, as usual in estuaries, is wider and flatter at low water and sharper at high water, instead of being symmetrical; which it still is as far up as St. John. It is therefore to be assumed that the elevation of mean sea level in Cumberland Basin, as obtained in this way, will be higher than the true elevation which would be found by hourly observations, or by the bisection of the area of the tide curve. In Baie Verte, any difference from this cause is probably quite inappreciable, as the range of the tide is more moderate, and its form presumably symmetrical. Although the period of the observa-tions at Baie Verte is shorter, the result for these reasons will be quite as accurate in proportion as in Cumberland Basin. Mean sea level in Baie Verte is in all probability the same as in the Atlantic. If there is any difference, it should be higher than in the Atlantic, as the lighter density of the water of the Gulf of St. Lawrence should make the water surface stand a few inches higher than in the ocean.

We add also a table taken from these observations, to show the range at springs and neaps in Cumberland Basin. It appears probable that these observations are day itdes only; and this would help to account for the apparent irregularities in the intervals of time between the spring and neap tides. According to the Admiralty tide tables the range in Cumberland Basin is the highest in the Bay of Fundy, with the exception of Noel Bay and Horton Bluff in Minas Basin. The range at spring tides and the rise at neap tides, as given in the Admiralty list, are as follows :—Noel Bay : springs $50\frac{1}{3}$, neaps $43\frac{1}{2}$ feet ; Horton Bluff : springs 48, neaps 40 feet ; Cumberland Basin at Sackville ; springs $45\frac{1}{2}$, neaps 38 feet.

I. Mean Sea Level at the head of the Bay of Fundy and on the Gulf of St. Lawrence, being the average elevation of half-tide above the datum of the Chignecto Ship Railway.

At Fort Lawrence dock, Cumberland Bazin, Bay of Fundy: Mean Sea Level from observations on 116 consecutive days, divided into lunar months, or periods of 29 days.

29th Aug. to 26th SeptEle	evation e	of Mean	n Sea L	evel	70.26
27th Sept. to 25th Oct	н,				70.67
26th Oct. to 23rd Nov		"		· · · · · · · · · · · · · · · · · · ·	71.12
24th Nov. to 22nd Dec			"		71.01
Mean Elevation					70.76

At Tidnish, Baie Verte, Gulf of St. Lawrence: Average elevation of half-tide on 78 days on which both high water and low water were obtained, between 11th August and 16th November.

 II. elevation

Neap tides

Spring

Neap

Spring

Neap

Spring

Neap

Spring

Neap

Neap

Spring

Neap

Spring

Neap

Spring

Neap

Spring

Spring "

For coi occurred on dock. This between An Peticodiac 1 on the other makes it pro alone, apart : the highest in elevation of 1 118.91, or 1 planes at the

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