

Greenwood's Almanac and now including the Father Point tables, has been widely distributed. The various newspapers have also done something in the way of re-publishing these tide tables, or in giving the time of high water daily, much in the same way as in former years.

*Charlottetown, Pictou and St. Paul Island.*—These tide tables are of the same character as last year, and they again include the whole twelve months. An improvement in them will be obtained, when the observations taken in Northumberland Strait during this season, are worked out. The tidal relation of Charlottetown to Pictou, and of Pictou to St. Paul Island, will thus be more accurately determined; and also when the tabulation of the tidal record from St. Paul Island itself, is submitted to analysis, the improvement secured will benefit this set of tables which are dependent upon it as a principal station.

The time of high water for Charlottetown, taken from these tables, has been published a month at a time by the *Patriot*, the *Examiner* and the *Guardian*. The tide tables for Pictou have also been published in full by the *Advocate* one month at a time, and accompanied by the tidal differences for the dependent places in Northumberland Strait.

*Ste. Croix bar.*—Tide tables were again computed for this locality, and with them the difference in time for St. Augustin Bar is given. These tide tables are published in company with the tide tables for Quebec, by the Montreal Harbour Commissioners, in the publication they prepare annually for the information of the St. Lawrence pilots. The new information regarding the tides and currents of the Lower St. Lawrence, was also supplied in a condensed form for this publication.

*Tadoussac, Cacouna and Little Métis.*—Tide tables for the months of July, August and September were again computed for these seaside resorts to meet the demand of the summer residents and tourists. This was done by a little extra work, without expense; as the tide tables were prepared in manuscript only, and posted at the leading hotels.

#### THE TIDAL ST. LAWRENCE AND ESTUARY.

In the season of 1900 an important series of simultaneous observations was secured, from Quebec to Point de Monts, 260 miles below; this being properly to be considered as the mouth of the St. Lawrence estuary. The tidal stations established and the record secured were:—

|                 |                     |
|-----------------|---------------------|
| Quebec          | Continuous record   |
| Grosse Isle     | May 4 to Oct. 15    |
| L'Islet         | " 12 to " 15        |
| Orignaux Pt.    | June 22 to Sept. 11 |
| Rivière du Loup | " 30 to Oct. 17     |
| Tadoussac       | July 6 to Sept. 15  |
| Father Point    | Continuous record   |
| Cape Chatte     | July 17 to Oct. 1   |

The two principal tidal stations in this region are Quebec and Father Point, and the first endeavour in reducing the observations was to find in what part of this region the tides could best be referred to Quebec, and in what part to Father Point. To ascertain this, trial comparisons were made for L'Islet and Orignaux Point, the time of the tide at these places being compared with Quebec on the one hand, and Father Point on the other. Without giving the resulting differences in detail, it was found that the upper part of the estuary as far as L'Islet could best be referred to Quebec, and that Orignaux Point and the Traverse and all points below, to the mouth of the estuary, could be referred to Father Point with greater accuracy than to Quebec. This corresponds with the natural features of the estuary; as the deep-water channel, which is 100 fathoms off Father Point, extends uninterruptedly to Orignaux Point, where it still has a depth of 20 fathoms. Above this the river becomes relatively shallower.