

The instrument of either type made its record by a pencil line, which is afterwards inked in, with a series of coloured inks to represent the different days of the week. The observers were instructed to change the tide-sheets twice a week to avoid confusion of the tide curves. They also made a comparison each day, between the height of the tide as shown on the tide scale and the reading of the recording instrument. From these comparisons a base line is obtained as a uniform datum for the true height of the tide, which avoids placing dependence upon the correct setting of the tide sheet for height on the instrument. When this comparison was made, the time as shown on the instrument was also compared with the true time; and the error, fast or slow, carefully noted. (All time errors can thus be allowed for, in reducing the observations. As the tide sheet is changed twice a week, and the clock cylinder is then set correctly to time, the time error cannot become very large in the half week, and is usually inappreciable if the clock-work is well regulated.)

A list of the stations established, with the length of the record obtained, and the height of the tide recorded, is given below:—

*Yarmouth, N.S.*—Gauge situated in the town of Yarmouth, at a wharf belonging to the Yarmouth Steamship Company, known as Baker's Wharf. Gauge placed in the south west corner of a freight shed, which stands across the front of the wharf. The wharf is built on piles, and the gauge column is braced in between them.

Tidal record from June 24th to date. The total range of the tide is recorded to low water. Observer, Captain J. E. Murphy, Meteorological observer.

*Westport, Bryer Island, N.S.*—Gauge placed at the end of Captain Payson's wharf, immediately in front of the Central House; which is situated on Water Street, 620 feet north-eastward from a cross street running inland past the Baptist Church.

Tidal record, from July 7th till the end of December, with some weeks interruption. The total range of the tide is obtained, except at the lowest spring tides. Observer, Frank Morrell, Signal officer.

*Digby, N.S.*—Gauge placed at the north side of the Digby pier about 40 feet from the end.

Tidal record, from June 30th till December 18th. Total range of tide is recorded. Observer, N. A. Turnbull, Meteorological observer and station agent.

*Campobello, N.B.*—Gauge placed at the back of the "L" at the head of the steamboat wharf at Welchpool, Campobello Island.

Tidal record, from July 15th till November 15th. Total range of tide is recorded. Observer, A. J. Clark, Customs officer.

*Parrsboro, N.S.*—Gauge at Parrsboro pier, near to Partridge Island. Attached to the east side of the pier, at about one-third of the distance from the shore end, where the side is most vertical.

Tidal record, from July 22nd till October 14th. Height of tide recorded, 21 feet below extreme high water, nearly down to mean sea level. Observer, Dr. W. H. Magee, Meteorological observer.

*Windsor, N.S.*—Gauge placed at the west corner of the railway wharf; forming part of the property which extends to the water front from the railway station.

Tidal record, from August 16th till November 18th. Height of tide recorded, 13 feet below ordinary high water at spring tides. When the tide falls to this level, the wharves at Windsor are left dry. Observer, Charles Cook, Midland railway office.

*Hopewell Cape, N.B.*—Gauge placed in the angle, behind the head of the pier, for protection, the foot of the tide column being set three feet into the clay. Inlet for the tide obtained by an iron pipe led around the corner of the wharf to the front.

Tidal record, July 30th till November 15th. Height of tide recorded, 14 feet below high water. Observer, Captain J. L. Pye, Customs officer.

*Moncton, N.B.*—Gauge placed at the upper corner of Dunlap's wharf, at the foot of Pleasant street. Tide column attached to the side of the wharf, and continued down 12 feet into the ground as a tide-well, made of 12-inch iron pipe. The tide empties and fills this tide-well by siphoning, as already described.