

of St. Lawrence and the Atlantic. This means that the heavy tidal pulsation at the head of the bay, is equally above and below the true standing level of the sea, if there were no tide. It would appear also that in storms, the level falls as much below ordinary Low Water as it raised above ordinary High Water. It is estimated that the Saxby tide fell to elevation 42.50, which from the extreme high of 100.00 would make its mean level 71.25; which compares closely with true half tide.

Level of the top of the dykes.—The dykes are built to reclaim the extensive 'marshes' or hay lands between Amherst and Sackville on Cumberland basin, Bay of Fundy. The elevation given in each case is the average level of several points on the dyke. The relation of the dyke level to extreme High Water will be seen on comparing these levels with the elevations already given.

We may note with regard to these dykes the great uniformity in level throughout the stretch of nine miles in extent. This can only have been arrived at from the level of the water itself when standing at high tide. The level as now determined will be valuable for future reference, and also in establishing the relation of the dyke level to extreme High Water.

	Elevation.
Dyke on east side of Missiquash river, at its mouth.....	97.26
Dyke on west side of Missiquash river, at crossing of Intercolonial railway.....	97.14
Dyke on east side of Aulac river, at Aulac station, Intercolonial railway	97.13
Crest of batardeau on which Intercolonial railway crosses Aulac river..	97.33
Dyke on west side of Aulac river, at same locality.....	97.11
Dyke on north side of Aulac river, about 1,000 yards from Intercolonial railway track.....	97.35
Dyke on north side of Tantramar river, half a mile east of railway bridge.....	97.64
Dyke at same locality, protecting railway track. (About nine inches higher than other dykes.).....	(98.38)
Dykes in same vicinity, general level to horizon.....	97.82
Dyke on north side Tantramar river, at crossing of Intercolonial railway.....	97.56
Dykes on Tantramar river, opposite Sackville, general level to horizon...	97.44
General average level of top of dykes (omitting the special dyke along the railway).....	97.38

Baie Verte.—Observations were obtained at the northern end of the Chignecto Marine Transport railway, at Tidiash in Baie Verte, in 1870 from August 11 to December 29, simultaneously with those in Cumberland basin. The resulting tide levels are given here; as they are reduced to the same datum, in the Report on the Baie Verte Canal, already referred to.

	Elevation.
Highest High Water in the season of 1870, on December 29	77.94
Mean level of High Water throughout the period of the observations.	74.00
Half-tide level from 48 days on which both High Water and Low Water were observed.....	71.18
Mean level of Low Water throughout the period of the observations...	68.35
Lowest Low Water in the season of 1870, on September 30.....	66.86