

ing with great force and evaporating effect when forming the dry rear semicircle of the revolving storms which pass over the lakes. An alteration in the meteorological conditions to cause for a period a preponderance of these winds in duration and force would, no doubt, have a marked effect on the water of the lakes.

The Welland Canal is an additional outlet for Lake Erie, the Sault Canal for Lake Superior, the lower canals for the River St. Lawrence, and the deepening of St. Clair River for Lake Huron. But I leave it to hydraulic engineers to calculate the additional quantity of water carried off in this artificial way.

Another interesting calculation would be the wearing effect of continual running water at the various rapid outlets. It is possible the rocky outlets of these lakes are wearing deeper by this natural means.

It is not necessary to say much about the reported subterranean passage from Lake Huron to the Gulf of St. Lawrence, because, if it exist, it is probably of very ancient origin, and may be considered a constant factor affecting equally both sides of the equation, the future and the past.

Should any member of the Society have made a survey of this passage at any time, a few words from him about it might be interesting. This tradition has some value, however, on account of its being handed down by seamen whose veracity on all matters maritime has *never yet been impugned*.

In 1838 there seems to have been the highest stage of water of which we have any authentic record. This high water has been used by the United States authorities as the plane of reference for the soundings on their charts, and for the records of the oscillations to which I have alluded.

From 1859 to 1887 the mean water-surface of Lake Ontario was 2.1 feet below the high water of 1838. There has been, on the whole, a gradual fall from 1859 to 1872, and a similar rise to 1888. I have not the records from 1888 to date, but have reason to believe the fall has been similar to that in Lakes Huron and Michigan, for which there are records to the end of last year. In Lake Ontario during this period