

the neighbourhood of Toronto must doubtless be influenced by the prodigious body of water poured out from the mouth of the Niagara River, it may be questionable whether its surface temperature is not higher rather than lower in summer than the mean temperature of its northern shore: and in effect it appears by a monthly observation made for eleven years from the extremity of the Queen's wharf, at the entrance of Toronto bay, and about 500 feet from the shore, that the surface water *alongside the wharf* has a mean temperature of 70° , in July, that of the air being only $66^{\circ}3$. I am not satisfied however with this evidence; to get the temperature of the water correctly, it should be observed at a greater distance from any radiating surface than circumstances have hitherto permitted; in fact from a boat at some distance from the shore: the point is worth the attention of persons residing near the shore. I am inclined to attribute the difference in summer to the great care with which the thermometer at the observatory is protected from direct and indirect radiation, and placed in an artificial shade more complete than is usually thought requisite, although admitting a free circulation of air from W. N. and E.: in the winter in addition to this cause it may be partly due to extreme temperatures sometimes falling on the Sunday mornings, which have been recorded in the one case not in the other.* To whatever cause due the *average* difference is not sufficiently large to preclude comparison, and the observations in the earlier years of the series, to which alone I shall have to recur, having been taken at the Upper Canada College in Toronto, would probably differ considerably less than these.

Mr. Dade's observations are given for 8 A. M. only; to reduce them to the true mean of the 24th. We must apply the following corrections derived from ten years observations:—

In January, add 2.02.	In July, subtract 0.14.
February, " 3.08.	August, add 0.18.
March, " 2.09.	September " 0.77.
April, " 1.15.	October, " 1.55.
May, " 0.30.	November, " 1.65.
June, " 0.21.	December, " 1.98.

The exceptional character of the diurnal curve of temperature for the month of February, or more probably that of January, which instead of being colder than February is in Canada slightly warmer, is a peculiarity worth notice, but is established by every year of the series, with one exception. The following are the mean temperatures for each of the winter months, in the whole series.

* An instance of the narrow limits within which considerable differences of actual temperature may occur, is given by Mr. Glaisher, who noted at temperature of zero at his own house, at Lewisham, on the 11th Feb., 1845, at 7.25, A. M., that it had been — 1.5, while at the Royal Observatory, Greenwich, two or three miles distant, at the same hour, the temperature was 8 S., and on the Thames — 10.5. Upon this occasion, a thermometer placed on the snow, and freely exposed to the open sky, fell to — 11.2, a temperature which few Canadian readers are prepared to hear of, as occurring in the neighbourhood of London, under any circumstances.