173 Physique Nº 8

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## ON THE CHANGES OF BAROMETRIC PRESSURE, AND PRESSURE OF VAPOUR THAT ACCOMPANY DIFFERENT WINDS, AT TORONTO,

FROM OBSERVATIONS IN THE SEVEN YEARS, 1860-66 INCLUSIVE.

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The object in the following paper is to shew the connection which subsists between the direction of the wind and the rapidity of the changes, whether of increase or diminution, which take place in the pressure of air and of vapour.

The changes considered in the investigation are limited to those in which the direction of the wind did not vary between two consecutivo observations by more than 22<sup>1</sup>/<sub>2</sub>° on each side of one of the eight principal points; and as such comparative constancy in direction will usually occur only when the interval is short, it was found convenient to employ only the differences between 6 a.m. and 8 a.m., between 2 p.m. and 4 p.m., and between 10 p.m. and midnight.

The total change in the reading between two consecutive observations being first diminished by the change due to diurnal variation, the remainders were then classed according to the direction of the wind in the interval, and their averages in each class taken, for the year cohectively as well as separately for the two half-years:

The average changes of barometric pressure which take place in wo hours, and found in the manner just described, are given below for each of the principal eight point of the wind's direction.

