THE METEOROLOGY OF CLIFTON

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THE METEOROLOGY OF CLIFTON

Trieste

THE

METEOROLOGY

OF

CLIFTON,

BEING THE

RESULTS OF TEN YEARS' OBSERVATIONS OF THE BAROMETER, THERMOMETER, RAIN, &c. &c.,

RECORDED AT

No. 7, SOUTH PARADE, CLIFTON, BRISTOL,

BY

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BIBLIOTHECA BODLEIANA

THE

METEOROLOGY OF CLIFTON.

LATITUDE, 51° 27′ 47″. LONGITUDE, 2° 36′ 30″.

The Science of Meteorology may well be said to be in its infancy. It is much to be regretted that, owing to the want of accurate instruments, the labours of many zealous workers in years past have been completely thrown away. Indeed, much of what has been done has been productive of harm rather than good, as far as the advancement of the Science is concerned. The last twenty years have witnessed a wonderful change in this respect, and, owing to the energy of some of our scientific men, accurate instruments are now pretty generally scattered over our island, and those who take an interest in this subject are now generally aware that, in order to make observations in Meteorology, such as shall conduce to the real advancement of the Science, certain conditions are necessary to be observed in regard to the choice of instruments, their position, and the times of reading, &c., &c.

The formation of the "British Meteorological Society" has had a great deal to do with the bringing about of this improvement, and there is every reason to hope that the next twenty years, say, will see a mass of trustworthy observations made in a great number of different parts of the country, capable, when discussed, of yielding most important results.

It seems to us obvious that in the present state of the Science, a work on the Meteorology of a particular spot should be little more than a collection of Tables. With this view, the following work is offered to the public. Ten years, although not a sufficiently long term to ensure mean results of perfect accuracy, may, notwithstanding, be regarded as a useful period for making up averages, and our own experience proves that a very considerable approximation to the truth may be so obtained, such as in regard to the mean temperature, &c., of the place. This will be seen best by laying down the mean results on squared paper, when, on drawing a line through the points representing the different temperatures of the Months, a curve of very considerable regularity is obtained.

In regard to the locality where the observations here recorded have been made, it should be stated that care has been taken that the Thermometers should be placed away from the influence of houses, &c., so as to enable the observer to obtain the true temperature of the air. Owing to the want of precaution in this respect, a vast number of observations in many places have been thrown away, and results otherwise trustworthy have been rendered useless. In order to obtain a fair comparison of the temperature, &c., of one place with another, too much stress cannot be laid on the placing of the instruments as nearly as possible under similar conditions.

Our own locality represents a very fair average, being tolerably open, and nearly on the same level as the principal part of Clifton. The fact of its being at the Eastern extremity

of Clifton makes no sort of difference in this respect. In order to prove this (which from theory we felt certain of) the writer has made experiments and comparisons from time to time, the result of which proves what is stated above. It needs hardly to be stated that those parts of Clifton where there is a decided incline in the ground towards the South, are somewhat warmer than our own. A similar result is true in all hilly places, and where the ground rises precipitously, as at Torquay, the climate in those parts which face the South must of necessity be milder than the average temperature of the air in the neighbourhood. The latter has been the object sought to be obtained in regard to the observations which form the present work.

MEAN TEMPERATURE OF THE AIR.

TABLE I.—This Table shows the Mean Temperature of the Air, approximately, for each Month of the series of Ten Years ending December, 1862. The observations upon which the results are founded, are four daily readings of the thermometer, two of which are actual readings at the hours of observation, and two are the readings of self-registering thermometers, maximum and minimum.

The morning readings have been taken, with very few exceptions, at 9 a.m., *local* time (which is uniformly observed in reference to the readings, the results of which are given in this work), and the afternoon observations have been taken at different hours from 3 to 6 p.m., according to the convenience of the observer; but for each Month one uniform hour has been adhered to, and the alteration of hours has usually referred to groups of Months and not to individual ones. The results of both a.m. and p.m. readings, as also of the readings of the maximum and minimum thermometers have been corrected for diurnal range by Glaisher's Tables.

The usually close agreement between the two independent results is very satisfactory, as showing that the observations have been carefully made, and also that the Diurnal Range Tables, founded on results of observations at Greenwich, are applicable to Clifton. It is rather probable that the mean of a large number of observations may prove that the Diurnal Curve at Clifton, may require a slight alteration from that adapted to Greenwich, but the similarity between the climates of the two places is sufficiently evident to prove that the results would scarcely be altered to the extent of one degree, even if the observations at Clifton were numerous enough to enable us to draw our own local curve with the same precision as that with which Mr. Glaisher has drawn the Greenwich one.

TABLE I.

Showing the Mean Temperature of the Air at 4 feet above the Ground, during each Month of the Ten Years ending 1862.

Years	January	February	March	April	May	June	July	August	September	October	November	December	Years
1853	41·6	33·4	38·0	45·3	51·2	55·8	57·8	57·7	54·3	49·9	41·2	35·0	46·8
1854	39·0	40·0	43·2	48·6	49·6	54·0	59·0	59·1	58·1	49·0	41·0	42·3	48·6
1855	36·2	29·3	37·9	44·5	48·2	55·1	62·0	60·5	55·8	50·0	41 1	37·6	46·5
1856	40·0	41·7	39·6	46·0	48·3	56·2	60·0	61·8	54·0	51·0	41·9	41·5	48·5
1857	37·3	39·5	41·3	45·0	51·9	60·7	61·1	63·2	58·4	52·4	44·9	46·7	50·2
1858	38·5	36·0	41·2	46·9	51·3	61·5	58·6	60·7	59·0	49·9	39·6	42·5	48·8
1859	41·3	42·9	45·5	45·5	53·0	59·0	66·0	61·7	55·3	50·4	42·3	35·8	49·9
1860	39·9	36·1	40·8	42·5	53·4	53·0	58·1	56·9	52·1	50·5	40·5	36·0	46·6
1861	35·0	41·6	43·2	45·9	51·5	58·4	58·7	60·7	55·6	54·0	40·5	40·2	48·8
1862	39·9	41·1	42·5	47·7	54·0	54·9	57·0	58·6	56·3	51·2	38·5	44·6	48·9

In the above Table, it will be seen that the Warmest Month was July, 1859 (66·0), *and the Coldest February,* 1855 (29·3) *giving a range in Mean Monthly Temperatures of* 36·7 *degrees.*