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RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL

OBSERVATIONS

MADE AT

THE ROYAL ALFRED OBSERVATORY, MAURITIUS,

IN THE YEAR

1897:

UNDER THE DIRECTION OF

T. F. CLAXTON, F.R.A.S

QC
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1897

MAURITIUS.

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MAURITIUS MAGNETICAL

AND

METEOROLOGICAL OBSERVATIONS

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INTRODUCTION.

I. Position of the Observatory and Instruments.

The Observatory is about three miles from the west coast and stands on a plain which is 179 feet above the sea-level. From West-South-West through West to North, there is an uninterrupted view of the sea; and from North, through East to South-East, the ground generally slopes from the Piton, the summit of which bears about four miles East by South and is 917 feet above the sea-level. Between South-East and South-West, there is a chain of mountains the highest peak of which, the Pieterboth, bears nearly six miles due South, and has an altitude of 2,874 feet above the sea. The nearest extremities of two spurs which run North and North West from the Pieterboth, are at distances of three to four miles, and have an elevation of about 560 feet.

The Island is of volcanic origin, and the rocks are more or less magnetic. Around the Observatory the soil has a depth of three to fourteen feet, below which is solid basalt.

Main Building.—The main building is a stone structure of rectangular base 56 feet by 38 feet. On the ground-floor are three rooms; one, the principal computing room, on the eastern side of the entrance hall, and two on the western side. On the first floor are four rooms, two on either side of the staircase. On the second floor is an attic, in which are three doors opening into domes, and a staircase leading to the roof.

The Magnetic Observatory.—The Magnetic Observatory, containing the magnetographs and barograph, bears 58 yards North by West of the Main Building; its floor is twelve feet below the surface of the ground. This building is constructed with inner walls, leaving an air-space of 30 inches between them and the outer walls which are in contact with the surrounding earth. At about 35 yards to the eastward is a stone-capped ventilator which communicates with the building by means of an underground pipe. The roof is thickly thatched, and every precaution has been taken to keep the daily range of temperature as small as possible, though there is an annual range of 8 degrees. The photographic operations are carried on in an anteroom adjoining the magnetic chamber.

Pavilion for Absolute Magnetic Observations.—The small pavilion for absolute magnetic observations is distant 88 yards to the North West of the Main Building, and 60 yards to the West of the Magnetic Observatory; three pillars of brick rise from substantial foundations below the floor; they are placed at equal distances apart and lie in a direction nearly at right angles to the Astronomical Meridian. On the western pillar is placed the Dip Circle (Dover No. 89); and on the central, the instrument used for observations of Absolute Horizontal Force and Declination (Kew pattern, Elliott No. 24).

Thermograph Screen, &c.—The thermograph screen adjoins the photoheliograph dome on its southern side and bears 80 yards North East from the main building; about midway between it and the Magnetic Observatory is the electrometer room, 16 yards to the South of which is the hut for actinometric observations.

Enclosure for Thermometers, &c.—At a distance of about 40 yards to the East of the main building is a circular enclosure 11 yards in diameter; in it are placed:—I. A Stevenson-Screen containing self-registering maximum and minimum thermometers (Negretti and Zambra Nos. 40,450 and 40,467):—II. A Stevenson-Screen containing a Mason's Hygrometer by Casella (Thermometers Nos. 81,524 and 81,525):—III. A wooden stand 4 feet high, carrying two solar radiation thermometers (Hicks Nos. 211,682 and 508,310):—IV. A terrestrial radiation thermometer (Casella No. 89,833):—V. An evaporometer by Negretti and Zambra, consisting of a cylindrical brass vessel 8 inches in diameter surrounded by wirework:—VI. A Symon's Earth Thermometer (Casella No. 46,235) for registering the temperature of the soil at a depth of 5 feet 2 inches below the surface:—VII. A Symon's Earth Thermometer (Negretti and Zambra No. C 3,955) for registering the temperature of the soil at a depth of 10 feet below the surface.

In addition to the above are two thermometer screens of different constructions, not at present in use.

Raingauges.—At a distance of 10 yards South by West from the enclosure for thermometers, is the Beckley Self-registering Raingauge. The Glaisher Raingauge bears 32 yards North by West from the main building.

Standard Barometer, &c.—The Observatory Standard Barometer (Newman No. 128) is placed in the principal computing room; it is mounted on a wooden stand firmly bolted to a slab of stone 6 feet from the southern, and 9 feet from the eastern wall, and has no error. Its tube is 0.^{in}564 in diameter and the cistern is considered to be 180.86 feet above the sea-level.

In the south-east corner of the room are self-registering maximum and minimum thermometers, dry bulb (Casella Nos. 15,447 and 1,470) and wet bulb (Casella Nos. 958 and 1,464). They are between two open windows, one facing the East and the other the South.

A mean solar clock by Dent is fixed to the northern wall and there are three solar chronometers, Kullberg No. 3,400, Webster No. 925 and Gartner No. 290, for magnetic and actinometric observations and for use with the photoheliograph, and one sidereal chronometer, Muirhead No. 450, for use with the portable transit instrument and theodolite. There is also a self-recording barometer (Richard Frères, Grand Modèle No. 11,378).

Old Transit Instrument, Equatorial and Anemometer.—The old transit instrument, the equatorial telescope and the registering part of the Kew anemometer, are in domes rising from the roof of the main building, and the sunshine instrument is placed on a stand on the roof, 42.5 feet above the ground.

Portable Transit Instrument.—The portable transit instrument is mounted in a room partitioned off from the servant's quarters and distant 10 yards to the South West of that corner of the main-building.

II. Routine work of the Observatory.

Absolute values of magnetic declination, horizontal force and dip are determined once a week; continuous photographic records showing the variations of magnetic declination, horizontal force and vertical force, barometric pressure, temperature of the air and of evaporation; also automatic records of the direction and velocity of the wind, and of the amount of rain, have been obtained with instruments of the Kew pattern. The registration of the duration of bright sunshine has been obtained by an "Improved Campbell Sunshine Recorder."

Eye-observations of the principal meteorological elements are taken daily at 6^h, 9^h, 13^h and 15^h. Mauritius civil time has been used throughout; the day commencing at midnight and counting from 0^h to 23^h.

The minimum thermometers are read at 9^h, and the maximum at 15^h.

Daily readings are taken of solar and terrestrial radiation thermometers; of thermometers the bulbs of which are respectively 5 feet 2 inches and 10 feet below the surface of the ground, and of a Mason's hygrometer exposed in a Stevenson-Screen on the lawn, the bulbs of the thermometers being 4 feet above the ground.

Actinometric observations are taken on those days on which the sky, in the neighbourhood of the sun, is free from cloud at, or near, apparent noon.

Photographs of the sun are taken daily, weather permitting; the negatives and one print of each are forwarded to the Secretary of the Solar Physics Committee, London; one print is retained.

Observations for time are taken daily with few exceptions. The time-ball on the signal-mountain is dropped by hand three times a week at 1 p.m., Observatory mean time.

The log books of ships touching at Mauritius are copied at the Port Office, and the results forwarded to the Observatory, where daily synoptic weather charts are prepared, and the tracks of cyclones laid down.

Meteorological Bulletins are prepared daily and forwarded to the local papers, and copies of the principal results for each month are forwarded to England, India and Australia.

Rainfall observations are collected from 72 stations in different parts of the Island, and the results tabulated.

The Meteorological Observations made at Seychelles; Rodrigues; the Botanical Gardens (Pamplemousses); the Nursery Gardens (Curepipe); Lynnwood (Moka); Marton (Vacoas); Clairfond (Phœnix); and the Manse (Beau Bassin) are all systematically reduced at the Observatory.

Observations of Luminous Meteors were made on November 13 and 14.

During the year 1897 the staff consisted of Mr. A. Walter, 1st. assistant, Mr. A. N. Figon, 2nd. assistant, with Messrs. N. V. Olivier, F. V. Agathe, E. Gourdin, R. Rassoo and L. Bertrand, extra assistants.

III. Magnetic Reductions.

From measurements made in February 1877, and again in August 1885, the value of 1 centimetre of Declination ordinate was found to be 11'.10".

The Scale Values of the Horizontal and Vertical Force magnets are determined by the method of deflections as described by the late Dr. Balfour Stewart in the last edition of the Encyclopædia Britannica, under the heading "Terrestrial Magnetism."

The values given in tables *a* to *f* are derived from tabulations of the magnetograms; the ordinates are measured out at every hour, the day commencing at 0^h and ending at 23^h, mean daily and hourly values of declination and horizontal force are then formed for each month of the year. The vertical force registers are not sufficiently trustworthy to admit of reliable daily values being formed for any length of time.

In table *c*, *Mean Diurnal Variation of Vertical Force*, by inadvertence, the values represent the increase and decrease of ordinate; to obtain the corresponding increase

and decrease of Vertical Force the signs should be changed. This applies also to the year 1896.

The tabulated values are standardized by the absolute determinations of declination, horizontal force, and dip.

As the daily range of temperature, within the glass shades of the magnetographs has usually been less than 0°.2 (Fah.), no correction for temperature has been applied to the values given in tables *b*, *c*, *e* and *f*.

Table *g*, *Absolute Magnetic Declination* has been compiled from observations made, as a rule, four times a month with a Kew pattern declinometer (Elliott No. 24).

The " correction to mean of month " has been obtained by taking the mean of the declination ordinates at the times of observation and comparing it with the mean ordinate for the month ; the excess of the latter over the former being the correction to algebraically add to the mean of the absolute observations.

Beginning with the year 1898, however, the above process will be slightly modified, as certain irregularities occur in the monthly means which are due to error of observation.

The azimuth of the fixed reference mark was determined occasionally with a 12 inch theodolite by Troughton and Simms mounted on the declinometer pier.

The mean result for the year 1897 was :—1.'14.''5 West of South.

Table *h*, *Absolute Magnetic Horizontal Force*, has been compiled from observations made, as a rule, four times a month with the Kew unifilar instrument (Elliott No. 24).

The constants, as determined at the Kew Observatory are as follows :—

Vibration Magnet (No. 24 A.) C. G. S. measure.

Induction Coefficient=5.20210.

Moment of Inertia=K ; log K=2.43255 at temperature 0° Centigrade.

In the expression, Temperature Correction $= q\ (t-0°) + q'\ (t-0°)^2$: $q = 0.000306$ and $q' = 0.00000148$.

In the expression $P = \dfrac{A_1 - A_2}{\dfrac{A_1}{r_1^2} - \dfrac{A_2}{r_2^2}}$, the mean value of P for 1897 = 5.0063.

The value of log K has recently been redetermined and found to be 2.43143 ± .00008 at temperature 26° C (mean of seven observations) or, reduced to the gravity at Kew, 2.43250 : while the Kew determination in the year 1889 was 2.43281 ; no correction has been applied to the results for this small difference. To obtain mean monthly values of Horizontal Force the observations have been treated in a manner similar to that adopted with the Declination.

The Values of Magnetic Dip given in table *i* have been obtained from observations made with the Kew Dip Circle (Dover No. 89).

The needles employed were 3½ inches long and were numbered 2, 3 and 4, respectively ; as a rule two observations a month were made with each. They have not been reduced to mean of month.

In table *j*, *Mean Monthly values of the Declination, Dip and Intensity for* 1897, the values given in columns 1, 2 and 3, have been taken from tables *g*, *h* and *i* respectively, and the values in columns 4 and 5 have been computed from those in columns 2 and 3.

Determination of the Temperature Coefficients of the Vertical Force and Horizontal Force Magnets.

During the month of August 1897 the Temperature Coefficient of the Vertical Force Magnet was determined by means of alternately heating and cooling the magnet.

An india-rubber hot-water bottle was placed on the outside of the glass shade and the temperature rose from 76° F. to 83° or 86° F. Unfortunately it has been found impossible to maintain even a partial vacuum within the glass-shade; the accuracy of the experiment is therefore impaired by convection currents. However, the results given in the following table show as close an agreement as can be expected.

The initial temperature in each case was 76° F.

Table giving the decrease of Vertical Force in scale divisions, for each degree (Fahrenheit) rise of temperature.

Date.	Degrees of Temperature.									
	1.0°	2.0°	3.0°	4.0°	5.0°	6.0°	7.0°	8.0°	9.0°	10.0°
August 7...	0.7	1.6	2.3	3.1	3.8	4.6	6.9	8.6	10.2	11.7
„ 9...	1.2	1.9	2.7	3.4	4.1	5.0	5.8	7.1	8.6	10.3
„ 13...	0.7	1.4	2.5	4.0	5.2	6.8	9.5	10.1	11.0	...
„ 18...	0.8	1.9	3.2	4.7	5.5	6.6	8.3	...	...	...
Means ...	0.8	1.7	2.7	3.8	4.7	5.8	7.6	8.6	9.9	11.0

The value of 1 scale division = 0.449 millimetres, and 1 millimetre of ordinate = 0.000614 m.m.s. units.

Converting the means given in the above table into m.m.s. units, the following formula has been deduced :—

$$V = V_0 - .000228\,(t - t_0) - .0000080\,(t - t_0)^2$$

where V = Vertical Force in m.m.s. units at any temperature t

and V_0 = Vertical force in m.m.s. units at the standard temperature t_0 = 76° F.

Comparing now the temperature correction derived from this formula and the observed decrease of Force for each degree rise of temperature we have :—

Degrees of Temperature.	Decrease of Force.		Difference (C—O.)
	Calculated (C.)	Observed (O.)	
°			
1.0	.00024	.00022	+.00002
2.0	.00049	.00047	+.00002
3.0	.00076	.00075	+.00001
4.0	.00104	.00105	—.00001
5.0	.00134	.00130	+.00004
6.0	.00166	.00160	+.00006
7.0	.00199	.00210	—.00011
8.0	.00234	.00237	—.00003
9.0	.00270	.00273	—.00003
10.0	.00308	.00304	+.00004

On August 13th., 18th. and 26th., experimental deflections were made at different temperatures with the following results :—

Vertical Force Deflections at different temperatures.

Distance of Deflector from Magnet.	3.0 feet.				2.7 feet.			
Date. 1897.	Amount of Deflection.	At Temperature.	Difference. Deflection.	Difference. Temperature.	Amount of Deflection.	At Temperature.	Difference. Deflection.	Difference. Temperature.
	mills.	°	mills.	°	mills.	°	mills.	°
August 13	10.00	83.0	0.45	6.0	13.50	83.0	0.50	6.0
	10.45	77.0			14.00	77.0		
„ 18	9.25	82.6	0.35	7.0	12.90	82.6	0.35	7.0
	9.60	75.6			13.25	75.6		
„ 26	10.30	81.0	0.45	5.2	14.35	81.0	0.35	5.2
	10.75	75.8			14.70	75.8		
Means ...	...	...	0.425	6.07	...	...	0.400	6.07

$D = D_0 - .068\ (t - t_0)$: where D = the amount of deflection (in millimetres) produced by a small deflecting magnet on the Vertical Force Magnet, at any temperature t, and D_0 = the corresponding deflection at temperature t_0 = 76° F.

It was found that the sensibility of the magnet varied at different scale readings *i.e.*, as the level of the magnet was altered, and therefore as different parts of the agate knife-edge were brought into play.

The experiments were made with the Deflecting Magnet at 3.0 ft. to the North of the Vertical Force Magnet, the North end of the deflector being alternately up and down. The different scale readings were obtained by carefully turning the horizontal screw, till the magnet took up any desired position.

In the following table are given the mean results of the experiments :—

1897 August 23.		1898 March 23.		1898 March 24.		1898 March 28.	
Scale Reading.	Observed Deflection.	Scale Reading.	Observed Deflection.	Scale Reading.	Observed Deflection.	Scale Reading.	Observed Deflection.
224.7	22.47	180.0	24.25	218.9	21.30	192.2	23.17
244.4	22.55	238.4	22.30	229.3	20.70	248.8	22.23
427.7	28.12	248.7	22.52	265.4	23.70	...	...
...	...	269.6	24.47	...	...	...	...
...	...	324.7	26.55	...	...	...	...
...	...	345.1	27.12	...	...	...	...
...	...	474.5	29.50	...	...	...	...

From the above numbers a curve has been formed (and afterwards smoothed) with scale-readings for abscissae and observed deflections for ordinates, giving the following results.

Vertical Force Scale Values at different Scale Readings.

Scale Readings	180.0	200.0	220.0	240.0	260.0	280.0	300.0
Amount of Deflection	24.2	22.5	21.4	21.8	23.5	25.0	25.9
Consequent value of 1 millimetre of ordinate in m.m.s. units ...	.00058	.00062	.00065	.00064	.00059	.00056	.00054
Scale Readings	320.0	340.0	360.0	380.0	400.0	420.0	440.0
Amount of Deflection	26.5	26.9	27.3	27.6	27.9	28.2	28.6
Consequent value of 1 millimetre of ordinate in m.m.s. units ...	.00053	.00052	.00051	.00050	.00050	.00049	.00049

There are discrepancies among the observations which render the above results somewhat uncertain it has therefore been the practice to determine the Vertical Force scale-value once a month rather than deduce monthly scale-values from the above formulae &c., seeing that temperature, scale-reading and magnetic moment

vary but little during one month ; and though it seems advisable to investigate the behaviour of the magnet under different conditions, yet in practice it is preferable to use the scale-value determined under certain conditions (until those conditions alter) rather than use a value deduced from observations made under certain other conditions.

The temperature coefficient of the Horizontal Force magnet was determined in September in a manner similar to that adopted in the Vertical Force experiments, though glass bottles were used in place of the india-rubber hot water bottle mentioned above, on account of the greater height of the Horizontal Force glass shade, around which the bottles were secured by means of common cord. The temperature rose generally from 76° to 83° F.

In the following table are given the results of the experiments :—

Table showing the decrease of Horizontal Force (in millimetres) for each degree (Fahrenheit) rise of temperature.

Date.	Degrees of Temperature.							end.
	° 1.0	° 2.0	° 3.0	° 4.0	° 5.0	° 6.0	° 7.0	
September 2	0.5	1.4	2.0	3.1	4.5	6.8	9.5	...
„ 6	0.5	1.5	2.2	3.9	4.8	6.8	10.3	11.9
„ 8	0.5	1.5	2.3	3.3	4.8	6.4	9.2	11.8
„ 15	0.5	1.1	2.3	4.0	5.8	7.9	9.8	10.5
Means	0.5	1.4	2.2	3.6	5.0	7.0	9.7	11.4

The value of 1 millimetre of ordinate is .000439 m.m.s. units.

It appears that the magnet does not take up the effect of temperature instantaneously ; at 83° the effect continues to increase from 9.7 millimetres to 11.4 millimetres, therefore a fair approximation to the truth would be obtained by multiplying the mean effect for each increase of temperature by $\frac{11.4}{9.7}$ or 1.18.

After performing this operation and converting the numbers into m.m.s. units the following formula was deduced :—

$$H = H_0 - .000144\ (t - t_0) - .000079\ (t - t_0)^2.$$

Comparing the temperature correction derived from this formula and the observed decrease of Force for each degree rise of temperature we have :—

Degrees of Temperature.	° 1.0	° 2.0	° 3.0	° 4.0	° 5.0	° 6.0	° 7.0
Decrease of Horizontal Force. *C.* = Calculated.	.00022	.00061	.00115	.00185	.00271	.00353	.00490
Decrease of Horizontal Force. *O.* = Observed.	.00026	.00073	.00114	.00186	.00259	.00363	.00502
Difference (*C* − *O*)	−.00004	−.00012	+.00001	−.00001	+.00012	−.00010	−.00012

IV. Meteorological Reductions.

All the thermometers have been verified at the Kew Observatory. They have been frequently compared with the Observatory Standard (Kew Standard No. 107) and, when necessary, corrections have been applied for their respective errors.

The values given in Tables I and II are derived from the hourly tabulations of the barograms; they have been corrected for temperature and capillarity, and the monthly means and extremes have been reduced to sea-level. No correction has been applied for the influence of gravity on the barometric readings; for a pressure of 30 inches, the correction for the latitude of the Observatory is—0.060 inches.

In forming the hourly means for the month of December 1897, the low barometer readings on the 5th. and 6th. have been rejected.

The following table gives the mean readings of the Standard barometer at 9h. and 15h. for each month of the year 1897 with the corresponding barograph readings :—

Months. 1897.	Corrected Barometer Readings.			Barograph Readings.		
	9h.	15h.	Means.	9h.	15h.	Means.
	ins.	ins.	ins.	ins.	ins.	ins.
January	29.763	29.709	29.736	29.763	29.709	29.736
February	29.750	29.691	29.720	29.750	29.691	29.720
March	29.789	29.728	29.759	29.790	29.728	29.759
April	29.902	29.825	29.864	29.901	29.826	29.864
May	29.944	29.872	29.908	29.944	29.872	29.908
June	29.977	29.912	29.944	29.977	29.911	29.944
July	30.025	29.952	29.988	30.026	29.953	29.989
August	30.045	29.973	30.009	30.046	29.974	30.010
September	30.038	29.962	30.000	30.038	29.962	30.000
October	29.979	29.907	29.943	29.980	29.906	29.943
November	29.877	29.808	29.842	29.877	29.809	29.843
December	29.798	29.736	29.767	29.797	29.735	29.766
For the year	29.907	29.840	29.873	29.907	29.840	29.873

The values given in Tables IV to X have been derived from the hourly tabulations of the thermograms.

The following Table gives, for each month of the year 1897, the excess of the tabulated readings of the thermograms over the corresponding standard thermometer readings :—

1897.	Excess of Tabulated over Standard Readings.							
	Dry Bulb.				Wet Bulb.			
	9h.	13h.	15h.	Mean.	9h.	13h.	15h.	Mean.
	°	°	°	°	°	°	°	°
January	+.08	+.07	+.08	+.08	−.16	−.09	−.09	−.11
February	+.03	−.05	+.05	+.01	−.21	−.19	−.18	−.19
March	+.08	+.02	+.01	+.04	−.07	−.18	−.09	−.11
April	+.06	+.03	−.04	+.02	−.07	−.07	−.13	−.09
May	+.06	+.04	−.02	+.03	−.03	−.08	−.08	−.06
June	+.08	+.02	−.02	+.03	−.07	−.11	−.10	−.09
July	+.05	+.08	+.06	+.06	−.09	−.07	−.08	−.08
August	+.11	+.09	+.07	+.09	.00	+.02	−.03	.00
September	+.06	+.07	+.08	+.07	−.01	−.02	−.04	−.02
October	+.11	+.11	+.09	+.10	+.03	+.07	+.04	+.05
November	+.08	+.06	+.07	+.07	+.03	+.09	+.08	+.07
December	+.12	+.12	+.07	+.10	+.05	+.02	.00	+.02
For the year ...	+.08	+.06	+.04	+.06	−.05	−.05	−.06	−.05

The thermogram tabulations have been standardized by the application of the above corrections.

The daily and hourly values of the dew point, vapour tension, and relative humidity (Tables XI-XVI) have been computed from the corresponding dry and wet bulb temperatures (Tables IV, V, IX, and X,) by means of Glaisher's Hygrometrical Tables (8th. edition).

The values given in Tables XVII and XVIII have been derived from observations, taken at 6h., 9h., 13h. and 15h. of thermometers in a lofty room within a few feet of two open windows, one facing the East and the other the South, so that the thermometers are generally in a current of air. From these observations, the values given in Tables XIX to XXI have been deduced.

The monthly and yearly means of the amount of upper and lower clouds are given in Table XXII.

The mean daily amounts of cloud (upper and lower combined) given in Table XXIII are the means of observations taken daily at 6h., 9h., 13h. and 15h..

The minimum temperature on the grass (Table XXIV) is derived from the readings of a self-registering minimum thermometer mounted horizontally at a distance of 6 inches above the ground. On 1895 November 1, Casella No. 89,833 was substituted for Hicks No. 175,616 which had been in use up to that date.

The monthly mean temperature of the dew point, vapour tension and relative humidity, given in Tables XXV, LI and LIII are computed directly from the monthly mean temperature of the air and of evaporation, and are not the means of daily values.

The values given in Table XXVII have been derived from the readings of two solar radiation thermometers by Hicks, apparently of the same construction ; the bulb and one inch of the stem being coated with lamp-black.

Hicks No. 211,682 was brought into use on 1885 February 5, and Hicks No. 508,310 on 1890 October 1. The thermometers are mounted on a wooden stand 4 feet above the ground, with their bulbs pointing towards the North.

In the year 1884, from comparisons made at the Kew Observatory with the reference standard thermometer, it was found that Hicks No. 211,682 had an error of +0°.9, at a temperature of 100°, when mounted in its jacket. From similar comparisons made in June 1890 with Kew Standard No. 6, it was found that Hicks No. 508,310 had the following errors :—

At 80°	90°	100°	110°	120°	130°	140°
+3.5	+5.0	+5.5	+5.0	+6.0	+6.5	+8.0

From observations made during the years 1885-89 with Hicks No. 211,682 and Negretti and Zambra, No. 5,999 it would appear that the positive error of the former at temperatures ranging from 125° to 155° gradually decreased. The Kew certificate did not give the error at a higher temperature than 100°.

It was therefore decided to send this thermometer to England for comparison at high temperatures with the standard solar radiation thermometer of the Kew Observatory ; unfortunately, it was broken on March 13 ; however, numerous comparisons had recently been made between it and Hicks No. 508,310, and from these observations the following table of corrections has been formed.

Corrections applicable to Hicks' Solar Radiation Thermometer No. 508.310 to reduce to Hicks No. 211.682.

Temperature by Hicks No. 508.310.	Correction to reduce to Hicks No. 211.682.	Temperature by Hicks No. 508.310.	Correction to reduce to Hicks No. 211.682.	Temperature by Hicks No. 508.310.	Correction to Hicks No. 211.682.
° °	°	° °	°	° °	°
96— 97	—2.0	118—119	—4.5	140—141	—7.0
98— 99	—2.2	120—121	—4.8	142—143	—6.9
100—101	—2.4	122—123	—5.1	144—145	—6.8
102—103	—2.6	124—125	—5.6	146—147	—6.7
104—105	—2.7	126—127	—6.1	148—149	—6.6
106—107	—2.8	128—129	—6.6	150—151	—6.5
108—109	—3.0	130—131	—7.0	152—153	—6.4
110—111	—3.3	132—133	—7.3	154—155	—6.3
112—113	—3.6	134—135	—7.3	156—157	—6.1
114—115	—4.0	136—137	—7.2	158—159	—5.9
116—117	—4.3	138—139	—7.1	160—161	—5.8

To preserve the continuity of the series, the above corrections have been applied to the readings of Hicks No. 508,310, from 1897 March 13.

The amount of Solar Radiation (Table XXVIII) is taken to be the difference between the readings thus obtained and the readings of Negretti and Zambra's self registering maximum thermometer No. 40,450, mounted in a Stevenson-Screen on the lawn.

The amount of bright sunshine (Tables XXIX—XXX), has been derived from the daily records of an " Improved Campbell Sunshine Recorder " by Negretti and Zambra. In general no trace is obtained when the Sun's altitude is less than 5° and when it shines through cloud or mist.

The daily and hourly measures of rainfall &c., Tables XXXI—XXXIII and also XXXIV—XXXVI have been derived from the records of Beckley's self-recording raingauge by Hicks. The amount of rainfall placed opposite to any given hour, is that which has fallen since the previous hour.

As, until the end of the year 1896, in computing the daily falls, the hours have been counted from 0h. to 23h., the amount set down to each day is not the true daily fall, but the fall from 23h. to 23h..

Commencing with the year 1897 the true daily fall has been computed, i.e.—the fall from midnight to midnight.

The amount of evaporation (Table XXXVII) has been derived from observations made with an evaporometer by Negretti and Zambra. The amount of evaporation on December 5 was not determined as the instrument overflowed, therefore the amount of rainfall on that day has not been included in the total monthly fall.

The amount of ozone (Table XXXVIII) is determined by the discoloration of Negretti and Zambra's ozone test papers, exposed in a Clark's wire-gauze ozone cage ; the papers are changed each day at 9h., and compared with a scale of graduated tints numbered from 0 to 10.

Tables XXXIX to XLIII have been compiled from the hourly tabulations of the anemograms. The north and east components of the wind have been computed for each hour of the day from the direction and velocity, as shown by the anemograms.

The mean radiation result given in Table XLIV, is the mean rise in temperature as shown by a Balfour Stewart Actinometer, due to an exposure of the thermometer bulb to the concentrated rays of the sun, for the space of two minutes, at or near apparent noon ; the sky, in the neighbourhood of the sun, being free from cloud.

The means and extremes of the temperature of the air, evaporation and of the dew point ; of vapour tension and relative humidity (Table XLVI) have been derived from the hourly tabulations of the thermograms and not, as in former years, from observations made with thermometers in a lofty room.

The results given in Tables XLIX—LIV have been obtained from observations made with verified thermometers.

At the Botanical Gardens, Pamplemousses, and at the Nursery Gardens, Curepipe, the thermometers are exposed in large Stevenson-Screens ; and at the other stations under open verandahs.

The observations of solar radiation at Curepipe, given in Table LII, have been made with a maximum solar radiation thermometer (Negretti and Zambra No. 65,011) which was found to read 3°.6 higher than Hicks No. 211,682, in use at the Observatory : this correction should be deducted from the results to make them comparable with the observations taken at the Observatory.

The observations of gales and hurricanes (Table LVIII) have been extracted from the logs of ships touching at Mauritius.

T. F. CLAXTON,

March 1898. Director.

ROYAL ALFRED OBSERVATORY

MAURITIUS

RESULTS

OF

MAGNETICAL OBSERVATIONS

1897.

TABLE *a*.

Mean Diurnal Variation of Magnetic Declination for each month of the year 1897.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the year.	Hours.
	′	′	′	′	′	′	′	′	′	′	′	′	′	
0h	+0.12	+0.09	+0.14	−0.05	+0.07	+0.09	+0.11	−0.05	−0.02	+0.07	+0.25	+0.11	+0.08	... ... 0h
1	+0.21	+0.11	+0.31	0.00	−0.03	−0.02	+0.06	−0.14	+0.01	+0.13	+0.39	+0.29	+0.11	 1
2	+0.37	+0.40	+0.47	+0.13	−0.05	−0.23	−0.04	−0.19	−0.08	+0.11	+0.26	+0.30	+0.12	 2
3	+0.47	+0.52	+0.52	+0.07	−0.15	−0.29	−0.03	−0.21	−0.06	+0.11	+0.56	+0.45	+0.16	 3
4	+0.76	+0.71	+0.47	−0.14	−0.26	−0.33	−0.10	−0.29	−0.21	+0.16	+0.72	+0.73	+0.19	 4
5	+1.08	+1.00	+0.51	−0.05	−0.36	−0.50	−0.14	−0.29	−0.34	+0.34	+1.05	+1.17	+0.29	 5
6	+1.59	+1.30	+0.37	−0.02	−0.40	−0.56	−0.36	−0.68	−0.85	+0.28	+1.99	+2.01	+0.39	 6
7	+2.45	+2.47	+1.24	+0.12	−0.79	−1.15	−1.02	−1.45	−0.91	+0.99	+3.33	+3.15	+0.70	 7
8	+3.26	+3.40	+2.65	+1.21	−0.04	−0.97	−0.67	−0.71	+0.29	+2.05	+3.20	+3.39	+1.42	 8
9	+3.72	+3.64	+3.10	+2.29	+1.45	−0.07	+0.42	+1.10	+2.22	+2.83	+1.99	+2.58	+2.10	 9
10	+3.06	+2.70	+2.40	+2.34	+1.95	+0.62	+1.56	+2.75	+3.71	+2.88	+0.54	+1.21	+2.14	 10
11	+1.32	+1.32	+1.25	+1.12	+1.38	+0.92	+1.95	+3.10	+3.92	+2.20	−0.83	−0.24	+1.45	 11
12	−0.76	−0.64	−0.65	−0.65	+0.44	+0.71	+1.05	+2.19	+2.50	+0.15	−2.29	−2.11	0.00	 12
13	−2.57	−2.75	−2.22	−1.58	−0.41	+0.21	−0.48	+0.73	+0.19	−1.91	−3.29	−3.22	−1.44	 13
14	−3.59	−4.05	−3.11	−2.02	−1.21	−0.54	−1.82	−1.18	−2.05	−3.21	−3.43	−3.35	−2.46	 14
15	−3.91	−4.04	−3.02	−2.13	−1.72	−1.05	−2.44	−2.57	−3.21	−3.04	−2.78	−2.76	−2.72	 15
16	−3.15	−3.10	−2.24	−1.48	−1.44	−1.06	−1.85	−2.46	−3.09	−2.14	−1.60	−1.91	−2.13	 16
17	−1.88	−1.68	−1.26	−0.56	−0.56	−0.06	−0.34	−1.19	−1.73	−1.04	−0.52	−1.07	−0.99	 17
18	−0.99	−0.68	−0.38	−0.06	+0.21	+0.79	+0.73	+0.11	−0.41	−0.41	−0.10	−0.42	−0.13	 18
19	−0.50	−0.39	−0.18	+0.21	+0.48	+0.91	+0.94	+0.38	−0.03	−0.17	+0.05	−0.17	+0.13	 19
20	−0.35	−0.27	−0.18	+0.47	+0.52	+0.85	+0.92	+0.43	+0.07	−0.22	+0.02	−0.32	+0.16	 20
21	−0.49	−0.15	−0.18	+0.37	+0.39	+0.73	+0.80	+0.36	+0.13	−0.06	+0.16	−0.05	+0.17	 21
22	−0.24	+0.05	−0.07	+0.31	+0.28	+0.57	+0.52	+0.19	+0.06	−0.07	+0.15	0.00	+0.15	 22
23	−0.06	+0.03	+0.01	+0.20	+0.23	+0.36	+0.35	+0.02	+0.09	+0.07	+0.23	+0.20	+0.14	 23

TABLE 5.

Mean Diurnal Variation of Horizontal Force for each month of the year 1897.

(In m.m.s. units).

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the year.	Hours.
0^h	−.00087	−.00060	−.00071	−.00075	−.00089	−.00095	−.00076	−.00072	−.00046	−.00037	−.00011	−.00001	−.00060	... ... 0^h
1	−.00069	−.00040	−.00040	−.00051	−.00077	−.00076	−.00060	−.00055	−.00035	−.00038	−.00006	+.00001	−.00045	 1
2	−.00059	−.00041	−.00018	−.00046	−.00068	−.00050	−.00052	−.00023	−.00008	−.00019	+.00021	−.00001	−.00030	 2
3	−.00033	−.00025	−.00003	−.00029	−.00034	−.00037	−.00042	−.00025	−.00004	.00000	+.00021	+.00010	−.00017	 3
4	−.00024	−.00020	−.00003	−.00026	−.00037	−.00020	−.00028	−.00001	+.00018	+.00005	+.00017	+.00018	−.00008	 4
5	−.00006	−.00009	+.00007	−.00003	+.00006	−.00003	−.00010	+.00009	+.00030	+.00015	+.00019	+.00018	+.00006	 5
6	+.00016	+.00009	+.00018	−.00005	+.00017	+.00016	+.00022	+.00019	+.00034	+.00017	+.00029	+.00041	+.00019	 6
7	+.00031	+.00024	+.00014	+.00020	+.00045	+.00053	+.00044	+.00051	+.00044	+.00011	−.00004	+.00048	+.00032	 7
8	+.00048	+.00018	+.00018	+.00070	+.00070	+.00101	+.00078	+.00110	+.00064	+.00032	+.00003	+.00055	+.00056	 8
9	+.00058	+.00032	+.00013	+.00108	+.00091	+.00117	+.00090	+.00123	+.00058	+.00062	+.00011	+.00062	+.00069	 9
10	+.00096	+.00063	+.00058	+.00121	+.00094	+.00141	+.00100	+.00099	+.00070	+.00119	+.00048	+.00109	+.00093	 10
11	+.00079	+.00085	+.00094	+.00147	+.00100	+.00140	+.00084	+.00075	+.00051	+.00118	+.00073	+.00115	+.00097	 11
12	+.00048	+.00092	+.00107	+.00167	+.00082	+.00117	+.00071	+.00066	+.00037	+.00102	+.00065	+.00055	+.00084	 12
13	+.00044	+.00078	+.00065	+.00114	+.00053	+.00079	+.00054	+.00063	+.00036	+.00051	+.00040	+.00005	+.00057	 13
14	+.00031	+.00071	+.00032	+.00034	+.00024	+.00024	+.00021	+.00033	+.00008	+.00021	+.00014	−.00023	+.00023	 14
15	+.00010	+.00048	−.00002	−.00037	−.00007	−.00023	−.00021	−.00024	−.00030	−.00020	−.00006	−.00049	−.00013	 15
16	+.00029	+.00011	−.00029	−.00051	−.00050	−.00067	−.00048	−.00064	−.00047	−.00037	−.00016	−.00076	−.00037	 16
17	+.00035	−.00015	−.00036	−.00058	−.00039	−.00058	−.00040	−.00075	−.00051	−.00054	−.00039	−.00090	−.00043	 17
18	−.00013	−.00034	−.00030	−.00066	−.00032	−.00029	−.00009	−.00045	−.00033	−.00063	−.00058	−.00078	−.00041	 18
19	−.00041	−.00055	−.00034	−.00081	−.00034	−.00044	−.00022	−.00044	−.00030	−.00062	−.00063	−.00060	−.00047	 19
20	−.00057	−.00051	−.00033	−.00080	−.00036	−.00061	−.00030	−.00054	−.00039	−.00067	−.00053	−.00064	−.00052	 20
21	−.00053	−.00065	−.00046	−.00082	−.00033	−.00073	−.00039	−.00052	−.00041	−.00066	−.00048	−.00063	−.00055	 21
22	−.00049	−.00062	−.00039	−.00040	−.00022	−.00076	−.00041	−.00058	−.00040	−.00053	−.00037	−.00028	−.00045	 22
23	−.00036	−.00056	−.00046	−.00052	−.00029	−.00076	−.00051	−.00058	−.00045	−.00038	−.00018	+.00002	−.00042	 23

TABLE *c*.

Mean Diurnal Variation of Vertical Force for each month of the year 1897.

(In m.m.s. units).

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the year.	Hours.
0h	−.00050	−.00074	−.00019	−.00022	−.00006	−.00013	−.00019	−.00019	−.00037	−.00019	−.00031	−.00038	−.00029	... ... 0h
1	−.00049	−.00064	−.00016	−.00015	−.00003	−.00009	−.00016	−.00014	−.00032	−.00014	−.00027	−.00035	−.00024	 1
2	−.00050	−.00062	−.00016	−.00014	+.00001	−.00008	−.00016	−.00011	−.00031	−.00014	−.00027	−.00035	−.00024	 2
3	−.00047	−.00054	−.00011	−.00010	+.00004	−.00005	−.00012	−.00010	−.00024	−.00012	−.00026	−.00032	−.00020	 3
4	−.00049	−.00055	−.00010	−.00010	.00000	−.00006	−.00017	−.00010	−.00024	−.00016	−.00032	−.00035	−.00022	 4
5	−.00048	−.00050	−.00010	−.00009	+.00001	−.00004	−.00017	−.00011	−.00022	−.00017	−.00034	−.00036	−.00021	 5
6	−.00056	−.00056	−.00010	−.00011	−.00003	−.00004	−.00018	−.00010	−.00020	−.00024	−.00055	−.00052	−.00027	 6
7	−.00065	−.00065	−.00034	−.00011	+.00004	+.00007	−.00004	−.00004	−.00025	−.00035	−.00067	−.00062	−.00030	 7
8	−.00065	−.00071	−.00062	−.00029	−.00027	−.00006	−.00019	−.00044	−.00064	−.00064	−.00049	−.00057	−.00046	 8
9	−.00066	−.00041	−.00052	−.00034	−.00046	−.00025	−.00048	−.00082	−.00093	−.00067	−.00007	−.00025	−.00049	 9
10	−.00028	−.00001	−.00023	−.00018	−.00032	−.00028	−.00055	−.00087	−.00103	−.00057	+.00019	+.00003	−.00034	 10
11	+.00031	+.00052	+.00018	+.00024	+.00014	−.00017	−.00024	−.00049	−.00064	−.00017	+.00050	+.00052	+.00006	 11
12	+.00080	+.00092	+.00066	+.00060	+.00045	+.00004	+.00028	+.00004	+.00016	+.00042	+.00072	+.00086	+.00050	 12
13	+.00118	+.00125	+.00095	+.00071	+.00060	+.00038	+.00092	+.00076	+.00107	+.00095	+.00086	+.00096	+.00088	 13
14	+.00130	+.00129	+.00093	+.00063	+.00071	+.00055	+.00117	+.00128	+.00153	+.00103	+.00076	+.00078	+.00100	 14
15	+.00113	+.00105	+.00071	+.00054	+.00071	+.00062	+.00103	+.00137	+.00152	+.00079	+.00053	+.00056	+.00088	 15
16	+.00079	+.00060	+.00037	+.00028	+.00042	+.00043	+.00063	+.00101	+.00117	+.00045	+.00024	+.00030	+.00056	 16
17	+.00046	+.00030	+.00012	+.00005	.00000	+.00005	+.00009	+.00043	+.00064	+.00022	+.00009	+.00018	+.00022	 17
18	+.00022	+.00010	−.00004	−.00010	−.00027	−.00015	−.00019	−.00001	+.00014	+.00006	.00000	+.00007	−.00001	 18
19	+.00005	+.00006	−.00013	−.00016	−.00032	−.00016	−.00022	−.00014	.00000	+.00002	−.00001	+.00003	−.00008	 19
20	−.00004	+.00001	−.00017	−.00025	−.00040	−.00019	−.00027	−.00025	−.00014	−.00006	−.00008	+.00002	−.00015	 20
21	−.00006	−.00001	−.00026	−.00025	−.00035	−.00016	−.00026	−.00029	−.00022	−.00009	−.00009	−.00005	−.00017	 21
22	−.00014	−.00010	−.00033	−.00024	−.00035	−.00015	−.00027	−.00035	−.00027	−.00012	−.00008	−.00009	−.00021	 22
23	−.00022	−.00008	−.00032	−.00018	−.00032	−.00009	−.00022	−.00034	−.00027	−.00010	−.00007	−.00009	−.00019	 23

TABLE *d*,

Diurnal Range of Magnetic Declination for each month of the year 1897.

Days.	January.	February.	March.	April	May.	June.	July.	August.	September.	October.	November.	December.	Days.
	′	′	′	′	′	′	′	′	′	′	′	′	
1d	7.0	15.9	6.1	7.1	4.7	4.1	3.4	3.6	7.2	9.3	5.6	7.7	... ... 1d
2	13.9	17.0	6.6	5.4	6.0	3.4	3.1	5.4	7.1	5.6	3.3	6.6	 2
3	10.5	16.4	5.8	4.4	3.8	3.9	3.0	5.8	9.8	4.4	7.7	5.6	 3
4	8.0	9.5	6.3	5.0	5.1	4.5	2.6	5.0	9.6	4.9	6.9	7.5	 4
5	9.3	10.0	6.0	5.4	5.5	3.3	4.8	6.1	7.8	7.6	6.9	8.7	 5
6	14.6	12.1	6.0	4.5	6.3	2.1	5.1	7.0	7.2	7.6	3.8	8.2	 6
7	14.1	9.8	8.1	6.2	4.8	2.3	4.8	5.4	10.4	7.4	8.1	7.6	 7
8	8.0	8.2	7.7	5.1	5.4	2.2	4.0	7.4	8.8	7.1	10.6	9.5	 8
9	9.5	7.5	6.3	5.2	4.8	2.2	3.0	5.3	6.3	8.6	6.3	12.2	 9
10	12.3	7.0	7.0	6.8	5.5	4.9	5.5	4.3	7.4	6.3	8.0	9.6	 10
11	7.9	7.2	6.3	5.9	4.1	4.0	7.0	6.1	4.8	7.3	8.8	11.1	 11
12	9.0	7.1	6.6	5.0	4.3	2.7	6.2	6.7	6.5	7.5	8.0	14.6	 12
13	8.3	5.6	5.6	7.9	4.9	3.2	6.8	7.0	6.2	6.0	8.1	9.8	 13
14	6.3	5.0	8.4	3.2	3.0	3.9	7.5	5.5	8.7	5.4	12.7	8.1	 14
15	3.5	4.0	7.0	4.4	2.2	2.3	6.3	3.7	7.9	6.3	9.4	4.1	 15
16	5.4	5.8	6.2	5.3	2.4	4.8	7.2	4.5	5.6	5.9	6.9	7.8	 16
17	6.6	6.4	7.1	3.9	3.0	6.4	6.7	6.0	7.7	8.5	6.0	5.5	 17
18	8.4	7.7	6.6	5.7	3.0	4.7	4.6	5.8	6.9	7.0	2.7	2.5	 18
19	8.6	6.4	8.1	5.7	3.2	2.6	5.6	4.0	7.7	6.0	3.9	3.8	 19
20	8.4	7.5	7.4	8.9	3.0	3.8	3.8	4.0	6.8	5.2	4.5	7.0	 20
21	9.4	9.8	7.0	4.1	5.9	3.0	5.6	7.2	10.0	5.5	8.0	9.0	 21
22	13.6	9.0	8.9	7.4	4.9	4.1	5.2	8.3	9.5	7.6	4.8	6.4	 22
23	11.8	8.9	8.3	6.6	3.8	3.1	3.7	8.0	9.0	5.4	8.5	4.7	 23
24	8.8	8.7	7.6	7.6	3.2	4.9	4.3	6.6	6.1	4.4	9.4	8.0	 24
25	11.3	6.0	5.7	6.5	3.9	3.0	4.2	7.9	6.5	7.3	6.9	6.6	 25
26	10.7	9.4	6.3	4.2	4.5	2.5	5.0	5.3	5.3	6.4	8.8	6.4	 26
27	6.6	8.3	7.0	3.3	3.9	2.1	4.1	8.0	10.2	6.7	10.3	7.8	 27
28	5.5	5.4	6.9	2.6	3.6	3.3	4.3	8.6	9.6	8.0	5.8	5.9	 28
29	7.4		6.4	6.2	4.1	3.5	4.6	7.6	8.6	9.2	7.9	8.7	 29
30	11.0		4.9	4.2	4.6	3.7	6.0	7.1	8.0	7.2	7.5	5.0	 30
31	12.7		6.2		4.0		5.8	6.6		6.7		...	 31
Means	9.3	8.6	6.8	5.5	4.2	3.5	5.0	6.1	7.8	6.7	7.2	7.5	Means.

TABLE e.

Diurnal Range of Horizontal Force for each month of the year 1897.

(In m.m.s. units.)

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Days.
1d	...	0.00119	...	0.00462	0.00180	0.00370	0.00370	0.00713	0.00405	0.00374	0.00365	0.00524	... ... 1d
2	...	0.00180	0.00452	0.00594	0.00550	0.00493	0.00374	0.00264	0.00361	0.00312	0.00330	0.00400	 2
3	...	0.00664	0.00469	0.00326	0.00396	0.00713	0.00290	0.00295	0.00361	0.00233	0.00242	0.00308	 3
4	0.00216	0.00471	0.00697	0.00603	0.00268	0.00418	0.00119	0.00176	0.00774	0.00220	0.00158	0.00475	 4
5	0.00288	0.00224	0.00447	0.00524	0.00304	0.00440	0.00216	0.00207	0.00568	0.00286	0.00264	0.00277	 5
6	0.00225	0.00198	0.00172	0.00814	0.00308	0.00268	0.00343	0.00264	0.00220	0.00444	0.00334	0.00480	 6
7	0.00257	0.00422	0.00361	0.00449	0.00238	0.00387	0.00224	0.00291	0.00229	0.00304	0.00220	0.00185	 7
8	0.00423	...	0.00705	0.00268	0.00172	0.00246	0.00268	0.00268	0.00172	0.00233	0.00132	0.00202	 8
9	0.00229	...	0.00426	0.00154	0.00119	0.00255	0.00189	0.00660	0.00299	0.00224	0.00268	0.00392	 9
10	0.00445	0.00440	0.00344	0.00682	0.00480	0.00220	0.00132	0.00242	0.00158	0.00462	0.00216	0.00695	 10
11	0.00837	0.00172	0.00494	0.00220	0.00554	0.00299	0.00286	0.00194	0.00673	0.00220	0.00409	***0.01448***	 11
12	0.00441	0.00326	0.00172	0.00365	0.00260	0.00238	0.00180	0.00229	0.00374	0.00392	0.00176	0.00475	 12
13	0.00225	0.00387	0.00383	0.00506	0.00484	0.00220	0.00317	0.00317	0.00172	0.00189	0.00132	0.00141	 13
14	0.00360	0.00334	0.00400	0.00449	0.00906	0.00216	0.00678	0.00304	0.00581	0.00202	0.00422	0.00224	 14
15	0.00283	0.00260	0.00219	0.00541	0.00290	0.00326	0.00409	0.00300	0.00238	0.00277	0.00264	0.00370	 15
16	0.00220	0.00273	0.00107	0.00554	0.00211	0.00867	0.00334	0.00256	0.00308	0.00211	0.00119	0.00515	 16
17	0.00297	0.00392	0.00348	0.00348	***0.01113***	0.00730	0.00202	0.00361	0.00207	0.00427	0.00515	0.00238	 17
18	0.00342	0.00242	0.00383	0.00471	0.00669	0.00409	0.00308	0.00348	0.00145	0.00581	0.00238	0.00260	 18
19	0.00211	0.00176	0.00189	0.00308	0.00207	0.00264	0.00176	0.00370	0.00290	0.00436	0.00224	0.00260	 19
20	0.00189	0.00229	0.00280	***0.01540***	0.00242	0.00374	0.00220	0.00484	0.00238	0.00211	0.00541	***0.02328***	 20
21	0.00198	0.00264	0.00150	0.00282	0.00937	0.00414	0.00220	0.00256	0.00273	0.00251	0.00304	0.00678	 21
22	0.00153	0.00141	0.00163	0.00220	0.00224	0.00409	0.00453	0.00194	0.00224	0.00295	0.00207	0.00405	 22
23	0.00382	0.00440	0.00335	***0.01104***	0.00361	0.00224	0.00436	0.00317	0.00334	0.00122	0.00180	0.00374	 23
24	0.00279	0.00370	0.00301	0.00581	0.00246	0.00229	0.00216	0.00194	0.00242	0.00238	0.00612	0.00264	 24
25	0.00391	0.00264	0.00391	0.00352	0.00374	0.00352	0.00224	0.00344	0.00211	0.00449	0.00264	0.00211	 25
26	0.00391	0.00515	0.00189	0.00334	0.00409	0.00308	0.00238	0.00361	0.00154	0.00321	0.00260	0.00176	 26
27	0.00418	0.00598	0.00430	0.00238	0.00326	0.00484	0.00348	0.00520	0.00220	0.00268	0.00229	0.00154	 27
28	...	0.00638	0.00327	0.00224	0.00211	0.00392	0.00224	0.00247	0.00392	0.00361	0.00229	0.00299	 28
29	...		0.00679	0.00330	0.00180	0.00176	0.00106	0.00247	0.00172	0.00255	0.00233	0.00845	 29
30	0.00535		0.00439	0.00207	0.00906	0.00180	0.00546	0.00251	0.00216	0.00449	0.00207	0.00422	 30
31	0.00409		0.00370		0.00334		0.00752	0.00295		0·00304		...	 31
Means.	0.00333	0.00336	0.00361	0.00407	0.00378	0.00364	0.00303	0.00315	0.00307	0.00318	0.00276	0.00366	Means.

The values printed in large type have not been included in the monthly means.

TABLE *f*.

Diurnal Range of Vertical Force for each month of the year 1897.

(In m.m.s. units.)

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Days.
1d	0.00228	0.00435	0.00221	0.00192	0.00205	0.00195	0.00143	0.00198	0.00260	0.00197	0.00093	0.00160	... ... 1d
2	0.00502	0.00585	0.00296	0.00114	0.00149	0.00189	0.00205	0.00216	0.00295	0.00145	0.00139	0.00137	 2
3	0.00331	0.00423	0.00186	0.00126	0.00248	0.00164	0.00118	0.00336	0.00395	0.00128	0.00209	0.00137	 3
4	0.00194	0.00277	0.00145	0.00138	0.00155	0.00120	0.00168	0.00132	0.00218	0.00145	0.00221	0.00182	 4
5	0.00308	0.00311	0.00267	0.00084	0.00143	0.00170	0.00124	0.00204	0.00165	0.00226	0.00163	0.00319	 5
6	0.00296	0.00363	0.00180	0.00174	0.00180	0.00076	0.00155	0.00210	0.00236	0.00221	0.00116	0.00251	 6
7	0.00389	0.00154	0.00209	0.00102	0.00124	0.00094	0.00143	0.00234	0.00295	0.00308	0.00296	0.00171	 7
8	0.00238	0.00274	0.00151	0.00156	0.00130	0.00088	0.00093	0.00246	0.00254	0.00232	0.00244	0.00313	 8
9	0.00331	0.00281	0.00157	0.00120	0.00118	0.00069	0.00236	0.00174	0.00336	0.00296	0.00157	0.00342	 9
10	0.00337	0.00252	0.00081	0.00162	0.00155	0.00183	0.00230	0.00156	0.00342	0.00261	0.00288	0.00251	 10
11	0.00209	0.00170	0.00151	0.00162	0.00087	0.00164	0.00285	0.00192	0.00224	0.00203	0.00180	0.00211	 11
12	0.00277	0.00269	0.00174	0.00138	0.00112	0.00132	0.00254	0.00300	0.00224	0.00226	0.00395	0.00245	 12
13	0.00236	0.00290	0.00192	0.00174	0.00180	0.00202	0.00354	0.00546	0.00230	0.00186	0.00157	0.00165	 13
14	0.00313	0.00224	0.00226	0.00072	0.00168	0.00189	0.00434	0.00228	0.00283	0.00122	0.00221	0.00211	 14
15	0.00130	0.00112	0.00197	0.00186	0.00093	0.00195	0.00304	0.00234	0.00366	0.00186	0.00139	0.00142	 15
16	0.00212	0.00248	0.00151	0.00216	0.00161	0.00132	0.00397	0.00294	0.00206	0.00238	0.00186	0.00194	 16
17	0.00313	0.00198	0.00244	0.00120	0.00124	0.00189	0.00149	0.00180	0.00230	0.00244	0.00116	0.00085	 17
18	0.00216	0.00223	0.00238	0.00144	0.00198	0.00101	0.00205	0.00252	0.00183	0.00087	0.00047	0.00114	 18
19	0.00318	0.00130	0.00244	0.00162	0.00112	0.00120	0.00161	0.00120	0.00271	0.00174	0.00203	0.00085	 19
20	0.00234	0.00109	0.00221	0.00330	0.00118	0.00132	0.00136	0.00126	0.00183	0.00087	0.00110	0.00308	 20
21	0.00198	0.00161	0.00151	0.00120	0.00149	0.00113	0.00205	0.00180	0.00277	0.00151	0.00163	0.00342	 21
22	0.00324	0.00241	0.00163	0.00198	0.00180	0.00113	0.00136	0.00222	0.00342	0.00325	0.00215	0.00188	 22
23	0.00312	0.00192	0.00186	0.00120	0.00205	0.00063	0.00192	0.00396	0.00301	0.00180	0.00244	0.00199	 23
24	0.00195	0.00207	0.00192	0.00120	0.00180	0.00176	0.00192	0.00156	0.00295	0.00197	0.00186	0.00234	 24
25	0.00360	0.00165	0.00180	0.00210	0.00149	0.00126	0.00236	0.00282	0.00254	0.00168	0.00151	0.00154	 25
26	0.00427	0.00188	0.00157	0.00096	0.00124	0.00145	0.00205	0.00312	0.00324	0.00197	0.00203	0.00291	 26
27	0.00177	0.00448	0.00215	0.00054	0.00143	0.00145	0.00230	0.00396	0.00478	0.00302	0.00174	0.00274	 27
28	0.00207	0.00151	0.00180	0.00096	0.00180	0.00113	0.00211	0.00360	0.00389	0.00238	0.00151	0.00182	 28
29	0.00168		0.00238	0.00210	0.00198	0.00157	0.00168	0.00414	0.00389	0.00186	0.00203	0.00177	 29
30	0.00372		0.00081	0.00120	0.00217	0.00183	0.00298	0.00258	0.00177	0.00180	0.00116	0.00103	 30
31	0.00378		0.00151		0.00118		0.00168	0.00252		0.00139		...	 31
Means	0.00282	0.00253	0.00188	0.00147	0.00155	0.00141	0.00211	0.00252	0.00281	0.00199	0.00181	0.00206	Means.

TABLE *g*.

Determinations of Absolute Magnetic Declination in the year 1897.

Mauritius Civil Time. 1897.		Uncorrected Declination.			Correction.		Reduced to mean of month.	Mean Monthly Declination West.
		Scale erect	Scale inverted	Mean.	for Torsion.	to mean of month.		
	d. h. m.	° ′ ″	° ′ ″	° ′ ″	′ ″	′ ″	° ′ ″	° ′ ″
January	7. 6. 50	10. 5.12.2	9.33. 2.2	9.49. 7.2	− 0.30.1	− 3.38.4	9.44.58.7	9.44.42.8
„	12. 8. 50	10. 3. 2.2	9.29.38.8	9.46.20.5	− 1. 5.8	− 1.17.4	9.43.57.3	
„	20. 8. 15	10. 6.48.8	9.34.28.8	9.50.38.8	− 1.43.4	− 3.44.4	9.45.11.0	
„	25. 11. 28	10. 2.52.2	9.30.28.8	9.46.40.5	0. 0.0	− 1.56.4	9.44.44.1	
February	1. 8. 50	10.12. 2.2	9.40.15.5	9.56. 8.8	− 1.21.4	− 3. 2.4	9.46.45.0	9.44.38.1
„	8. 8. 28	10. 2.12.2	9.29. 2.2	9.45.37.2	0. 0.0	− 2.53.4	9.42.43.8	
„	14. 11. 10	10. 2.18.8	9.28.18.8	9.45.18.8	− 0.29.8	− 0.23.4	9.44.25.6	
March	1. 8. 29	10. 4. 2.2	9.31.28.8	9.47.45.5	+ 1. 2.1	− 3.57.0	9.44.50.6	9.46.42.6
„	16. 9. 48	10. 7.22.2	9.36.15.5	9.51.48.8	− 2.29.3	− 2.48.0	9.46.31.5	
„	22. 8. 14	10. 8.52.2	9.35.15.5	9.52. 3.8	− 0.39.2	− 4.39.0	9.46.45.6	
April	2. 11. 4	9.57.28.8	9.25.38.8	9.41.33.8	+ 0.31.5	+ 2.19.8	9.44.25.1	9.43.59.2
„	6. 8. 48	10. 0.52.2	9.28.18.8	9.44.35.5	− 1.10.6	− 1.10.2	9.42.14.7	
„	13. 7. 39	10. 2.18.8	9.30.28.8	9.46.23.8	+ 0.27.3	− 0.49.2	9.46. 1.9	
„	22. 10. 27	10. 3.48.8	9.30.58.8	9.47.23.8	0. 0.0	− 3.43.2	9.43.40.6	
„	27. 8. 52	10. 2.38.8	9.30.45.5	9.46.42.2	− 2.22.3	− 0.46.2	9.43.33.7	
May	10. 10. 46	10. 1.12.2	9.29.48.8	9.45.30.5	− 0.20.0	− 1.57.0	9.43.13.5	9.42.42.6
„	18. 10. 52	9.58.35.5	9.25.45.5	9.42.10.5	0. 0.0	− 0.18.0	9.41.52.5	
„	19. 8. 46	10. 2.38.8	9.29.18.8	9.45.58.8	− 0.48.4	− 1. 0.0	9.44.10.4	
„	24. 11. 14	9.58.22.2	9.26. 8.8	9.42.15.5	− 0.46.2	+ 0.15.0	9.41.44.3	
„	27. 10. 48	10. 0.32.2	9.28.32.2	9.44.32.2	0. 0.0	− 2. 0.0	9.42.32.2	
June	2. 11. 27	9.59.10.5	9.28.13.8	9.43.42.1	− 0.15.9	− 1.31.8	9.41.54.4	9.42.53.8
„	8. 9. 27	10. 2 18.8	9.27.55.5	9.45. 7.1	+ 0.35.7	− 1. 7.8	9.44.35.0	
„	17. 9. 51	9.57.12.2	9.26.22.2	9.41.47.2	+ 0.45.5	− 0.55.8	9.41.36.9	
„	23. 14. 27	9.59.25.5	9.27.28.8	9.43.27.2	− 0.24.9	+ 0.10.2	9.43.12.5	
„	28. 13. 13	9.56.35.5	9.24.48.8	9.40.42.2	0. 0.0	+ 2.28.2	9.43.10.4	

TABLE 9.—*Concluded.*

Determinations of Absolute Magnetic Declination in the year 1897.—*Concluded.*

Mauritius Civil Time. 1897.		Uncorrected Declination. Scale erect	Scale inverted	Mean.	Correction. for Torsion.	to mean of month.	Reduced to mean of month.	Mean Monthly Declination West.
	d. h m.	° ′ ″	° ′ ″	° ′ ″	′ ″	′ ″	° ′ ″	° ′ ″
July	6. 7. 57	10. 5.45.5	9.32.35.5	9.49.10.5	− 1.14.7	− 0.16.2	9.47.39.6	9.44.51.2
„	14. 11. 15	10. 5.48.8	9.31.42.2	9.48.45.5	− 0.38.4	− 4.34.2	9.43.82.9	
„	22. 9. 46	9.57.25.5	9.25. 2.2	9.41.13.8	0. 0.0	+ 1.55.8	9.43. 9.6	
„	28. 8. 17	10. 2. 8.8	9.30.32.2	9.46.20.5	− 0.55.4	− 0.22.2	9.45. 2.9	
August	2. 10. 54	10. 0.28.8	9.27.37.2	9.44. 3.0	+ 0.29.4	− 3.30.0	9.41. 2.4	9.42.25.1
„	10. 11. 3	10. 1.48.8	9.29.58.8	9.45.53.8	− 0.59.7	− 1.48.0	9.43. 6.1	
„	17. 8. 47	9.59.55.5	9.28.42.2	9.44.18.8	− 1. 1.9	+ 0. 6.0	9.43.22.9	
„	23. 14. 23	9.55.15.5	9.25.18.8	9.40.17.2	+ 0.19.3	+ 2. 6.0	9.42.42.5	
„	31. 10. 10	10. 0.22.2	9.27.58.8	9.44.10.5	+ 0.41.3	− 3. 0.0	9.41.51.8	
September	6. 8. 2	10. 1.38.8	9.28.42.2	9.45.10.5	− 0.21.7	+ 1.36.6	9.46.25.4	9.44.10.4
„	14. 8. 4	10. 2.15.5	9.30.28.8	9.46.22.2	− 0.56.8	− 0.11.4	9.45.14.0	
„	22. 11. 50	10. 4.20.5	9.32.27.2	9.48.23.9	0. 0.0	− 4.23.4	9.44. 0.5	
„	27. 8. 42	9.59.40.5	9.28.38.8	9.44. 9.7	+ 1.21.5	− 4.29.4	9.41. 1.8	
October	5. 13. 47	9.57.20.5	9.28. 2.2	9.42.41.3	0. 0.0	+ 1.44.4	9.44.25.7	9.44.11.2
„	12. 10. 0	10. 2.52.2	9.28.55.5	9.45.53.8	0. 0.0	− 2.57.6	9.42.56.2	
„	19. 9. 32	10. 3.28.8	9.31. 2.2	9.47.15.5	0. 0.0	− 2.39.6	9.44.35.9	
„	26. 8. 1	10. 4.50.5	9.32.22.2	9.48.36.3	− 1.15.8	− 2.33.6	9.44.46.9	
November	4. 10. 31	10. 1.32.2	9.28.18.8	9.44.55.5	0. 0.0	− 2. 0.6	9.42.54.9	9.42.28.6
„	12. 9. 32	10. 1.12.2	9.28. 5.5	9.44.38.9	− 0.38.5	− 0.36.6	9.43.23.8	
„	17. 14. 29	9.55.35.5	9.21.43.8	9.38.39.7	+ 0.18.1	+ 2.59.4	9.41.57.2	
„	23. 6. 43	10. 0.48.0	9.33.51.3	9.47.19.6	− 0.58.6	− 4.42.6	9.41.38.4	
December	1. 8. 2	10. 3. 5.5	9.36.32.2	9.49.48.8	− 0.55.6	− 4.24.6	9.44.28.6	9.42.10.9
„	10. 13. 52	9.53.27.2	9.25.52.2	9.39.39.7	− 0.45.6	+ 3.14.4	9.42. 8.5	
„	16. 7. 26	9.56.45.5	9.29. 5.5	9.42.55.5	0. 0.0	− 2.24.6	9.40.30.9	
„	20. 8. 12	9.58.22.2	9.31.28.8	9.44.55.5	0. 0.0	− 2. 6.6	9.42.48.9	
„	29. 9. 24	9.55.18.8	9.30.50.5	9.43. 4.7	+ 0.41.5	− 2.48.6	9.40.57.6	
Means		10. 1.21.8	9.29.42.0	9.45.31.9	− 0.21.1	− 1.33.6	9.43.37.2	

TABLE h.

Determinations of the Absolute Value of Horizontal Magnetic Force in the year 1897.

Mauritius Civil Time. 1897.	Deflecting Magnet No. 24. A			Observed Deflection.		Temperature (Cent.)	Observer.	In C. G. S. Measure.					In English Measure.
	Observed Time of one Vibration.	Effect of 90° Torsion.	Temperature (Cent.)	Distance. 1.0 ft.	Distance. 1.3 ft.			Observed Values of m.	Observed Values of X.	Correction to mean of Month.	Reduced to mean of Month.	Mean Monthly Values of X.	Mean Monthly Values of X.
d h	s	′	°	° ′ ″	° ′ ″	°							
January ... 6. 10	3.66514	4.42	29.3	14.4.25.0	6.22.45.0	29.6	C	838.5	0.23929	−.00018	0.23911	0.23911	5.1858
" ... 14. 9	3.66615	4.72	27.1	14.5.17.5	6.22.35.0	28.3	F	837.7	0.23914	−.00009	0.23905		
" ... 22. 8	3.66500	4.85	26.5	14.6.17.5	6.22.57.5	27.8	O	838.2	0.23909	.00000	0.23909		
" ... 28. 8	3.66300	5.03	25.4	14.5.32.5	6.22.47.5	27.2	C	838.1	0.23927	−.00006	0.23921		
February ... 3. 9	3.66250	4.98	25.3	14.6. 5.0	6.23.10.0	25.6	F	838.2	0.23929	−.00004	0.23925	0.23929	5.1897
" ... 10. 8	3.66385	4.72	26.8	14.6.12.5	6.23.12.5	26.8	O	838.5	0.23919	+.00011	0.23930		
" ... 16. 11	3.66540	4.62	28.3	14.3.42.5	6.21.40.0	28.7	C	837.3	0.23949	−.00014	0.23935		
" ... 25. 9	3.66195	4.98	25.6	14.6. 7.5	6.22.40.0	26.4	F	838.3	0.23937	−.00013	0.23924		
March ... 4. 8	3.66600	4.62	27.5	14.6.20.0	6.22.50.0	28.2	O	838.2	0.23907	+.00005	0.23912	0.23905	5.1845
" ... 12. 7	3.66280	4.99	23.3	14.6.16.2	6.23.10.0	24.2	C	837.5	0.23920	−.00009	0.23911		
" ... 17. 9	3.66780	4.98	26.2	14.5. 2.5	6.22.47.5	27.1	F	837.0	0.23903	−.00002	0.23901		
" ... 24. 9	3.66715	4.81	25.6	14.5.42.5	6.22.50.0	27.6	O	837.4	0.23898	−.00001	0.23897		
April ... 3. 10	3.66695	4.90	27.0	14.4.24.0	6.22.32.5	28.2	C	836.6	0.23898	−.00014	0.23884	0.23890	5.1812
" ... 8. 9	3.66615	5.12	22.9	14.5.42.5	6.22.37.5	24.1	F	836.3	0.23912	−.00014	0.23898		
" ... 15. 8	3.66385	5.46	21.9	14.6.52.5	6.22.52.5	24.6	O	837.2	0.23906	−.00016	0.23890		
" ... 26. 11	3.66770	4.90	27.0	14.5.17.5	6.22.45.0	27.1	C	837.2	0.23907	−.00011	0.23896		
" ... 29. 9	3.66685	4.44	23.8	14.7. 2.5	6.23.10.0	24.6	F	837.1	0.23892	−.00009	0.23883		
May ... 5. 9	3.66630	5.10	21.3	14.6.55.0	6.23.40.0	23.9	O	836.9	0.23879	−.00003	0.23876	0.23886	5.1804
" ... 17. 11	3.66945	4.72	25.1	14.6. 7.5	6.22.37.5	23.7	W	835.8	0.23893	−.00012	0.23881		
" ... 20. 9	3.67115	5.40	22.6	14.5. 7.5	6.22.50.0	24.6	F	835.2	0.23875	+.00011	0.23886		
" ... 25. 11	3.66955	5.25	26.0	14.3.57.5	6.21.45.0	26.2	W	835.6	0.23919	−.00019	0.23900		
June ... 2. 15	3.67000	4.99	26.9	14.4.23.7	6.21.42.5	26.1	O	835.7	0.23920	−.00010	0.23910	0.23904	5.1843
" ... 9. 9	3.66580	4.76	20.9	14.4.27.5	6.22. 0.0	22.6	F	835.2	0.23930	−.00022	0.23908		
" ... 15. 11	3.66695	5.24	21.0	14.5.20.0	6.22.10.0	21.9	W	835.1	0.23919	−.00026	0.23893		
" ... 24. 11	3.66775	5.09	22.1	14.5.18.7	6.22.37.5	23.7	O	835.7	0.23902	−.00004	0.23898		
" ... 30. 9	3.66514	5.46	20.3	14.5.10.0	6.22.45.0	22.5	W	835.8	0.23916	−.00004	0.23912		

TABLE *h.—Concluded.*

Determinations of the Absolute Value of Horizontal Magnetic Force in the year 1897.—*Concluded.*

Mauritius Civil Time. 1897.	Deflecting Magnet No. 24. A			Observed Deflection.		Temperature (Cent.)	Observer.	In C.G.S. Measure.					In English Measure.
	Observed Time of one Vibration.	Effect of 90° Torsion.	Temperature (Cent.)	Distance. 1.0 ft.	Distance. 1.3 ft.			Observed Values of m.	Observed Values of X.	Correction to mean of Month.	Reduced to mean of Month.	Mean Monthly Values of X.	Mean Monthly Values of X.
d h	s	′	°	° ′ ″	° ′ ″	°							
July ... 7. 8	3.66614	5.99	20.2	14. 5.10.0	6.22.15.0	21.9	F	835.1	0.23917	−.00013	0.23904	0.23900	5.1834
„ ... 16. 9	3.66530	6.00	19.6	14. 5.40.0	6.22.47.5	21.3	O	835.5	0.23912	−.00010	0.23902		
„ ... 19. 11	3.66729	5.70	21.5	14. 4.15.0	6.22.20.0	23.6	W	835.2	0.23913	−.00018	0.23895		
„ ... 30. 8	3.66740	6.77	20.1	14. 4.25.0	6.22. 2.5	22.3	F	834.5	0.23913	−.00014	0.23899		
August ... 5. 13	3.67015	5.81	22.7	14. 4.46.2	6.22.27.5	24.0	O	835.0	0.23893	+.00002	0.23895	0.23895	5.1823
„ ... 12. 10	3.66714	6.14	21.3	14. 3.57.5	6.22.50.0	21.9	W	835.1	0.23916	−.00006	0.23910		
„ ... 19. 8	3.66735	6.66	18.9	14. 6. 0.0	6.22.40.0	19.9	F	834.7	0.23900	−.00012	0.23888		
„ ... 28. 11	3.66935	5.83	22.7	14. 5.46.2	6.22.45.0	23.7	O	835.5	0.23888	.00000	0.23888		
September ... 4. 11	3.66778	6.14	24.0	14. 3. 7.5	6.21.34.5	24.2	W	834.9	0.23938	−.00030	0.23908	0.23901	5.1836
„ ... 10. 9	3.66940	6.29	21.0	14. 4.10.0	6.22. 7.5	22.6	F	834.3	0.23905	−.00009	0.23896		
„ ... 14. 15	3.67400	5.60	25.6	14. 5. 0.0	6.22.22.5	25.1	O	834.8	0.23876	+.00026	0.23902		
„ ... 22. 14	3.67236	5.49	27.0	14. 3. 2.5	6.21.32.5	26.2	W	834.7	0.23914	−.00003	0.23911		
„ ... 30. 9	3.68905	6.66	19.2	13.54. 3.5	6.18. 0.0	20.5	F	824.6	0.23910	−.00021	0.23889		
October ... 1. 9	3.68680	8.86	19.8	13.54.37.5	6.17.25.0	21.0	F	824.8	0.23929	−.00016	0.23913	0.23905	5.1845
„ ... 9. 8	3.68920	6.70	20.4	13.55. 5.0	6.17.55.0	21.6	O	825.0	0.23906	−.00008	0.23898		
„ ... 12. 12	3.69307	5.55	25.3	13.53.17.0	6.17.27.0	24.6	W	824.9	0.23912	−.00011	0.23901		
„ ... 20. 9	3.69050	5.78	21.8	13.53.42.5	6.16.55.0	24.3	F	824.6	0.23919	−.00009	0.23910		
„ ... 27. 14	3.69530	5.60	28.5	13.52.18.7	6.16.47.5	28.6	O	825.1	0.23909	−.00007	0.23902		
November ... 5. 14	3.69628	5.80	28.5	13.52.10.0	6.17. 7.5	27.8	W	824.8	0.23903	−.00009	0.23894	0.23889	5.1810
„ ... 10. 8	3.69793	6.15	25.6	13.53. 2.5	6.17. 2.5	26.1	F	823.8	0.23881	+.00002	0.23883		
„ ... 20. 10	3.69625	5.86	25.0	13.52.50.0	6.16.57.5	26.9	O	824.2	0.23888	−.00012	0.23876		
„ ... 23. 8	3.69571	5.70	25.5	13.53. 8.7	6.17. 7.5	25.7	W	824.3	0.23897	+.00004	0.23901		
December ... 2. 8	3.69535	5.96	26.0	13.52.10.0	6.16.52.5	27.3	F	824.4	0.23903	−.00015	0.23888	0.23884	5.1799
„ ... 11. 11	3.70050	4.97	26.0	13.52.43.7	6.16.42.5	27.7	O	823.4	0.23868	+.00018	0.23886		
„ ... 16. 8	3.69805	5.30	28.1	13.50.52.5	6.15.40.0	28.4	W	823.4	0.23920	−.00037	0.23883		
„ ... 22. 9	3.70170	5.01	26.5	13.52.15.0	6.16.42.5	26.6	F	822.9	0.23872	+.00019	0.23891		
„ ... 30. 9	3.70135	5.20	28.0	13.51.16.2	6.16.35.0	28.1	O	823.2	0.23883	−.00012	0.23871		
Means	...	...	...	...	...	...	...	...	0.239074	−0.000078	0.238996	0.23900	5.1834

TABLE *i*.

Monthly and Yearly Means of Magnetic Dip in the Year 1897.

Monthly Means of Magnetic Dip.						
Month 1897.	Needle No. 2	Number of Observations.	Needle No. 3	Number of Observations.	Needle No. 4	Number of Observations.
	° ′		° ′		° ′	
January ...	54. 25.9	2	54. 31.4	2	54. 30.1	2
February ...	54. 28.9	1	54. 30.4	2	54. 31.4	2
March ...	54. 27.9	2	54. 32.7	2	54. 31.1	2
April ...	54. 27.9	2	54. 29.4	2	54. 30.0	2
May ...	54. 25.7	2	54. 29.8	2	54. 28.7	2
June ...	54. 25.3	2	54. 28.6	2	54. 26.8	2
July ...	54. 25.6	2	54. 27.3	2	54. 25.5	2
August ...	54. 25.5	2	54. 23.3	2	54. 27.4	2
September ...	54. 23.5	3	54. 27.3	3	54. 25.3	2
October ...	54. 25.2	2	54. 27.4	2	54. 27.4	2
November ...	54. 25.6	2	54. 27.9	2	54. 25.6	2
December ...	54. 24.7	2	54. 28.1	2	54. 24.4	2
Means.	54. 25.8	Sum 24	54. 28.6	Sum 25	54. 27.8	Sum 24

TABLE *j*.

Mean Monthly values of Magnetic Declination, Dip, and Intensity in 1897.

Months.	Declination (West).	Dip (South).	Magnetic Intensity. (In English Measure).		
			Horizontal Force.	Vertical Force.	Total Force.
	° ′ ″	° ′			
January	9.44.42.8	54. 29.1	5.1858	7.2662	8.9269
February	9.44.38.1	54. 30.5	5.1897	7.2779	8.9387
March	9.46.42.6	54. 30.6	5.1845	7.2711	8.9302
April	9.43.59.2	54. 29.1	5.1812	7.2597	8.9190
May	9.42.42.6	54. 28.0	5.1804	7.2537	8.9136
June	9.42.53.8	54. 26.9	5.1843	7.2543	8.9163
July	9.44.51.2	54. 26.1	5.1834	7.2495	8.9119
August	9.42.25.1	54. 25.4	5.1823	7.2448	8.9075
September	9.44.10.4	54. 25.4	5.1836	7.2466	8.9097
October	9.44.11.2	54. 26.7	5.1845	7.2537	8.9160
November	9.42.28.6	54. 26.4	5.1810	7.2474	8.9089
December	9.42.10.9	54. 25.7	5.1799	7.2428	8.9044
For the year.	9.43.37.2	54. 27.4	5.1834	7.2552	8.9166
Column.	1	2	3	4	5

Magnetic Disturbances in 1897.

The following is a brief account of the principal magnetic disturbances.

January 1^d — 3^d. From $1^{d.}\ 8^h$ —12^h the H. F. magnet was under adjustment. After an increase of H. F. (.00396) from $1^{d.}\ 12^h$ —$14\frac{1}{2}^h$, followed by a series of undulatory movements (±.00090) till $2^{d.}\ 10^h$, a gradual decrease of force (.00495) set in taking the spot of light out of range by $15\frac{1}{4}^h$. The register again became visible by $3^{d.}\ 0^h$ the force increasing (.00405) in a series of waves (±.00112) till $3^{d.}\ 6^h$; undulations and tremors occurred occasionally from $3^{d.}\ 9^h$ —$18\frac{1}{2}^h$ and were followed by a sudden increase of force (.00373) at 19^h.

In Dec. and V. F. the movements were generally small. On January 1^d the diurnal variation in Dec. was irregular and from $2^{d.}\ 19\frac{3}{4}^h$ —20^h a sharp wave (+7.′5) occurred; shown in V. F. as a positive wave (.00171).

" 10^d — 11^d. At $10^{d.}\ 20\frac{1}{2}^h$ a sharp increase took place in H. F. (.00225); slight tremors followed till $11^{d.}\ 21^h$, the force remaining above its normal until 14^h and returning at 21^h after a long negative wave (.00360).

From $11^{d.}\ 16\frac{1}{2}^h$ —18^h a shallow wave occurred in Dec. (+1.′5) and slight tremors occurred occasionally in V. F. from $10^{d.}\ 20\frac{1}{2}^h$ —$11^{d.}\ 21^h$.

" 29^d. From $29^{d.}\ 0^h$ —7^h the H. F. registering light failed. At 7^h the force was above its normal (.00270) and after a further increase (.00171) lasting till 10^h, a gradual decrease (.00985) set in, followed from 20^h —24^h, by an increase (.00360). Throughout the disturbance small undulations occurred in H, F. and very slight tremors in Dec. and V. F.

February 3^d — 4^d. A small disturbance. After a slightly accentuated diurnal variation in H. F. on the 3rd, small though somewhat rapid undulations (±.00066) commenced at $3^{d.}\ 21^h$ lasting till $4^{d.}\ 7^h$; after this the movements were less pronounced, the disturbance ending with a positive wave (.00308) from $4^{d.}\ 21^h$ —24^h.

In Dec. and V. F. the movements were generally small: in the former the diurnal variation was unusually large on February $1^{d.}$, 2^d and 3^d and two small westerly waves occurred from $4^{d.}\ 1\frac{1}{2}^h$ —$2\frac{1}{2}^h$ (2.′4) and $21\frac{1}{2}^h$ —$22\frac{1}{2}^h$ (3.′0).

" 25^d — 28^d. This disturbance started in H. F. with a gradual decrease of force (.00220) from $25^{d.}\ 19^h$ —20^h, followed till 21^h by a positive wave (.00396), the commencement being exceptionally abrupt. Rapid undulations occurred till 23^h and were followed by a negative wave (.00132) till $26^{d.}\ 0^h$. Frequent undulations and tremors were noticeable till $27^{d.}\ 11^h$, when a decrease of force (.00594) set in, lasting till $20\frac{3}{4}^h$ with a positive wave (.00220) from 16^h —$20\frac{3}{4}^h$; the force then increased (.00321) till $28^{d.}\ 3^h$ with a double wave (—.00132 and +.00264) from $27^{d.}\ 23^h$ —$28^{d.}\ 2\frac{1}{2}^h$.

In Dec. and V. F. the movements were very slight.

March 3^d — 5^d. This disturbance commenced in H. F. with a gradual decrease of force (.00503) extending from $3^{d.}\ 8^h$ —$22\frac{3}{4}^h$; an increase (.00434) followed till $4^{d.}\ 7^h$, with a positive wave (.00254) from $4^{d.}\ 1\frac{1}{2}^h$ —$3\frac{1}{2}^h$. At $4^{d.}\ 7^h$ a second decrease of force (.00731) set in lasting till $22\frac{1}{4}^h$ and followed by a slight increase (.00125) till 23^h, with a further increase (.00430) from $5^{d.}\ 0\frac{1}{2}^h$ —$0\frac{3}{4}^h$.

In Dec. a westerly wave (1.′5) occurred from $4^{d.}\ 1\frac{1}{2}^h$ —2^h and frequent slight oscillations in V. F. from $3^{d.}\ 20^h$ —$4^{d.}\ 11^h$.

" 8^d — 11^d. Slight undulations took place in H. F. from $8^{d.}\ 3^h$ —10^h and were followed by a gradual decrease of force (.00740) which lasted till $8^{d.}\ 21\frac{1}{4}^h$, the force regaining its normal by $9^{d.}\ 3^h$. After an accentuated diurnal movement on the 9th slight undulations again commenced at $9^{d.}\ 19^h$, followed in this instance by a positive wave (.00215) from $21\frac{1}{2}^h$ —23^h. The diurnal movement was again slightly accentuated on the 10th. and the disturbance ended with an irregular positive wave (.00301) from $11^{d.}\ 1^h$ —4^h.

NOTE:—The measures given are in M.M.S. units for Horizontal Force and Vertical Force, and in Minutes of Arc for Declination.

In Dec. small undulations frequently occurred during the disturbance, and slight tremors were noticeable in V. F. from $9^{d.}19^{h}$ — 23^{h} and $10^{d.}8^{h}$ — 15^{h}.

March 24^{d} — 25^{d}. A small disturbance commenced in H. F. at $24^{d.}18\frac{1}{2}^{h}$ by a sudden increase of force (.00163) followed by a gradual decrease (.00344) till $22\frac{1}{2}^{h}$, with a small positive wave (.00129) from $21\frac{1}{4}^{h}$ — $22\frac{1}{2}^{h}$, the force regaining its normal by $25^{d.}3^{h}$.

In Dec. and V. F. slight tremors occurred occasionally.

" 29^{d} — 30^{d}. This disturbance was marked by an accentuated diurnal variation in H. F. on the 29th, the range for the day being (.00770). From $29^{d.}17^{h}$ — 19^{h} a negative wave (.00228) occurred, and from $29^{d.}23\frac{1}{2}^{h.}$ — $30^{d.}2^{h}$ a positive wave (.00378) steep at commencement.

In Dec. and V. F. slight movements occurred occasionally.

April 1^{d} — 2^{d}. This small disturbance commenced in H. F. at $1^{d.}10^{h}$ with a decrease of force (.00484) lasting till 21^{h} and bearing two shallow positive waves (.00220) from 11^{h} — 15^{h} and (.00132) from 16^{h} — 20^{h}. From $1^{d.}21^{h}$ — $2^{d.}9\frac{1}{4}^{h}$ the force increased (.00585) with two positive waves (.00220) from $1^{d.}22^{h}$ — $2^{d.}0^{h}$ and (.00176) from $2^{d.}4^{h}$ — 7^{h}; a second decrease (.00678) followed till 18^{h}, with a negative wave (.00343) from 11^{h} — $13\frac{1}{4}^{h}$, the force regaining its normal by $2^{d.}24^{h}$.

In Dec. and V. F. the movements were small.

" 5^{d} — 8^{d}. This disturbance commenced in H. F. with a small positive wave (.00132) from $5^{d.}20^{h}$ — 21^{h}; small rapid undulations occurred till 23^{h} and occasionally throughout the remainder of the disturbance: larger movements occurred as follows:— from $6^{d.}3\frac{3}{4}^{h}$ — 6^{h} a positive wave (.00299) reaching its maximum by $4\frac{1}{4}^{h}$: a sharp negative wave (.00783) from $6^{d.}18^{h}$ — 22^{h}: a series of three shallow negative waves (.00233) (.00264) and (.00132) from $7^{d.}13^{h}$ — 17^{h}, 17^{h} — 22^{h} and 22^{h} — $8^{d.}1^{h}$ respectively.

In Dec. two waves occurred (—4.'0) and (+3.'2) from $6^{d.}4^{h}$ — 5^{h} and $19\frac{1}{4}^{h}$ — $20\frac{1}{2}^{h}$ followed by occasional small undulations till $8^{d.}0^{h}$.

In V. F. the movements were very slight.

" 16^{d} — 20^{d}. This disturbance commenced with a series of small undulations in H. F. extending from $16^{d.}9^{h}$ — $20^{d.}9^{h}$, when a decrease of force (.01176) set in lasting till 19^{h}, with a positive wave (.00273) from 16^{h} — $18\frac{1}{2}^{h}$: an increase of force (.00625) followed till $20^{d.}23\frac{1}{2}^{h}$, with occasional small undulations, the disturbance ending in H. F. with a sharp-pointed negative wave (.00242).

In Dec. small undulations occurred occasionally from $16^{d.}9^{h}$ — $20^{d.}9^{h}$; on the 20th the diurnal movement was slightly accentuated and from $17\frac{1}{2}^{h}$ — $18\frac{3}{4}^{h}$ small but rapid undulations occurred, followed by a westerly wave (3.'5) till $19\frac{1}{2}^{h}$ and from $21^{d.}0\frac{1}{2}^{h}$ — 2^{h} a shallow easterly wave (3.'0) occurred.

In V. F. the movements were generally small, the most marked being a positive wave (.00104) from $20^{d.}18\frac{1}{2}^{h}$ — $19\frac{1}{4}^{h}$.

" 23^{d} — 25^{d}. The commencement of this disturbance was marked by a sudden decrease in H. F. (.00238) at $23^{d.}10\frac{1}{4}^{h}$; from $10\frac{1}{4}^{h}$ — $21\frac{3}{4}^{h}$ the force gradually decreased (.00994) then increased (.00792) till $24^{d.}12\frac{1}{4}^{h}$, with a positive wave (.00537) from $23^{d.}21\frac{3}{4}^{h}$ — $24^{d.}1\frac{1}{2}^{h}$. At $24^{d.}12\frac{1}{4}^{h}$ another gradual, though irregular decrease of force (.00629) set in, lasting till $24^{d.}21\frac{1}{2}^{h}$, the force regaining its normal after two successive waves (+.00136) from $24^{d.}21\frac{1}{2}^{h}$ — 23^{h} and (+.00321) from $24^{d.}23^{h}$ — $25^{d.}2^{h}$; slight undulations occurred from $25^{d.}2^{h}$ — 21^{h} and the disturbance ended with a positive wave (.00361) from $25^{d.}21^{h}$ — 23^{h}.

Slight tremors were visible throughout in Dec. and occasionally in V. F.: in the former, five waves occurred as follows:— $23^{d.}18\frac{3}{4}^{h}$ — $19\frac{1}{2}^{h}$ (—2.'8); $23^{d.}23\frac{1}{4}^{h}$ — $24^{d.}0\frac{1}{2}^{h.}$ (—3.'7); $24^{d.}3\frac{3}{4}^{h}$ — 5^{h} (—3.'0); $19\frac{1}{4}^{h}$ — $20\frac{3}{4}^{h}$ (+3.'1); $25^{d.}21^{h}$ — $21\frac{1}{2}^{h}$ (+1.'9).

May $2^d - 3^d$. Frequent and generally small undulations occurred in H. F. between $2^d.11^h$ and $3^d.4^h$. From $2^d.11\frac{1}{2}^h - 23\frac{1}{4}^h$ the force decreased (.00594) with a shallow positive wave (.00264) from $2^d.14\frac{1}{4}^h - 17\frac{1}{2}^h$. A gradual increase (.00158) took place from $2^d.23\frac{1}{4}^h - 3^d.4^h$ and at 5^h the disturbance died out after a further increase (.00352) which took place suddenly from $4^h - 4\frac{3}{4}^h$.

In Dec. a small wave (+2.'3) from $2^d.23\frac{1}{4}^h - 3^d.0\frac{1}{4}^h$ was the only noticeable movement.

„ $13^d - 14^d$. This disturbance commenced by a gradual increase in H. F. (.00233) from $13^d.16^h - 19^h$ with small superposed fluctuations; from $19^h - 22^h$ the force decreased (.00519); a gradual increase then set in (.00581) lasting till $14^d.11\frac{3}{4}^h$ and was followed till 19^h by a second decrease of force (.00981) with a negative wave (.00273) from $16^h - 18^h$, the force regaining its normal at 23^h by a steady increase (.00480).

In Dec. and V. F. the movements were very slight.

„ $17^d - 18^d$. From $17^d.15^h - 18^d.4^h$ a long negative wave (.00836) occurred in H. F. with small rapid superposed undulations.

In Dec. frequent small undulations occurred and in V. F. slight tremors.

„ $21^d - 22^d$. From $21^d.0\frac{3}{4}^h - 1^h$ the H. F. increased (.00220); at 5^h slight tremors commenced and appeared frequently throughout the remainder of the disturbance. From $21^d.8\frac{1}{4}^h - 15^h$ the force decreased (.00858) with a positive wave (.00396) from $12\frac{3}{4}^h - 15^h$. At 15^h a general increase of force (.00202) set in lasting till $18\frac{1}{2}^h$ with, however, a negative wave (.00176) from $16\frac{3}{4}^h - 17\frac{1}{2}^h$; after a very slight decrease till $19\frac{3}{4}^h$ a further rapid increase (.00330) occurred from $21^d.20^h - 20\frac{1}{4}^h$. The disturbance died away at $22^d.6^h$.

In Dec. a shallow easterly wave (2.'5) occurred from $21^d.4\frac{1}{2}^h - 6\frac{1}{2}^h$, followed by small undulations till 21^h.

„ $30^d - 31^d$. This disturbance commenced in H. F. at $30^d.0^h$ with small undulations which occurred frequently throughout the disturbance. From $30^d.3\frac{1}{4}^h - 6\frac{3}{4}^h$ the force increased (.00387) and then decreased (.00387) till $9\frac{1}{4}^h$; from $12\frac{3}{4}^h - 13\frac{3}{4}^h$ a second increase (.00308) occurred followed by a diminution of force (.00889) till $16\frac{1}{2}^h$ when a steady increase (.00497) set in, the force reaching its normal by $31^d.3^h$.

In Dec. slight undulations occurred occasionally.

June $16^d - 17^d$. A small disturbance commenced in H. F. at $16^d.2\frac{1}{2}^h$ by a general increase of force (.00361) lasting till 12^h and accompained by a positive wave (.00317) from $4\frac{1}{4}^h - 6\frac{1}{4}^h$ with maximum at $6^h\ 10^m$; from $12^h - 19\frac{1}{2}^h$ the force decreased (.00849) and increased again (.00634) by $17^d.5\frac{1}{4}^h$; a negative wave (.00317) followed till 8^h and a decrease of force (.00845) till $15\frac{3}{4}^h$, with a positive wave (.00352) from $12^h - 15\frac{1}{4}^h$; the force regained its normal by 19^h.

In Dec. small undulations occurred occasionally.

July $14^d - 15^d$. A sudden increase of H. F. (.00176) occurred at $14^d.12^h$; from $13^h - 22^h$ a decrease (.00695) occurred with occasional superposed undulations; the disturbance died out at $15^d.7^h$ after an increase (.00405.)

In Dec. occasional small undulations, and in V. F. very slight tremors were noticed.

July 30^d — Aug. 1. At $30^d.12\frac{1}{3}^h$ a small, but sudden increase occurred in H. F. (.00132) followed by a gradual decrease (.00594) till $18\frac{1}{4}^h$, with small tremors and undulations. From $30^d\ 18\frac{1}{4}^h - 31^d.7^h$ the force increased (.00286) with a small negative wave (.00132) from $31^d.5^h - 7^h$; decreased (.00748) till 19^h and regained its normal by $5\frac{1}{2}^h$ on August 1^d.

Frequent small waves occurred in Dec. from $31^{d.}\,7^{h}$ — August $1^{d.}\,5\frac{1}{2}^{h}$ and in V. F. slight tremors and undulations occasionally.

August 1^{d} — 2^{d}. This disturbance commenced in H. F. with small undulations from $1^{d.}\,14^{h}$ — $17\frac{3}{4}^{h}$: from 17^{h} — $19\frac{3}{4}^{h}$ the force decreased (.00735) and then increased gradually (.00572) till $2^{d.}\,3\frac{1}{4}^{h}$.

In Dec. and V. F. small undulations occurred occasionally.

" 20^{d}. A small disturbance, the principal feature being an increase (.00110) in H. F. from $20^{d.}\,7^{h}$ — 10^{h}, the force regaining its normal at 14^{h} by a negative wave (.00374), with minimum at $11\frac{1}{2}^{h}$.

In Dec. and V. F. the movements were very slight.

September 4^{d} — 6^{d}. This disturbance commenced in H. F. with a decrease of force (.00845) from $4^{d.}\,10^{h}$ — $5^{d.}\,0^{h}$, occasional tremors occurring throughout, and a long, shallow, positive wave (.00242) from $4^{d.}\,17^{h}$ — 22^{h}. From $5^{d.}\,0^{h}$ — 11^{h} the force increased (.00576), again decreased (.00598) till 14^{h}, and gradually returned to its normal by $6^{d.}\,6^{h}$.

In Dec. a series of small waves occurred from $4^{d.}\,22^{h}$ — $5^{d.}\,3^{h}$.

" 11^{d} — 13^{d}. This disturbance commenced with small rapid undulations in H. F. lasting from $10^{d.}\,18^{h}$ — $11^{d.}\,3^{h}$; from $11^{d.}\,3^{h}$ — 22^{h} the force decreased (00691) with small undulations, increased (.00444) till $23\frac{1}{2}^{h}$ and, after a further decrease (.00154) till $12^{d.}\,2\frac{1}{2}^{h}$, again increased (.00352) by 3^{h}. Slight movements followed occasionally till $13^{d.}\,0^{h}$, the disturbance ending at $13^{d.}\,0\frac{1}{2}^{h}$ after a small negative wave (.00110).

In Dec. and V. F. movements were small.

" 14^{d}. At $14^{d.}\,2^{h}$ the H. F. suddenly increased (.00176) and small undulations and tremors followed till 15^{h}: from 10^{h} — $18\frac{1}{2}^{h}$ the force decreased (.00598) and regained its normal by $23\frac{1}{4}^{h}$.

In Dec. and V. F. the movements were very slight.

October 1^{d} — 4^{d}. This disturbance commenced in H. F. at $1^{d.}\,15^{h}$ with small undulations, which gradually increased in frequency until $2^{d.}\,6^{h}$ when they suddenly ceased, the force meanwhile having increased (.00361) from $1^{d.}\,15^{h}$ — 20^{h} and decreased (.00471) till $2^{d.}\,2^{h}$: from $2^{d.}\,9\frac{1}{2}^{h}$ — 11^{h} a negative wave (.00229) occurred leaving the force slightly below its normal; small undulations occasionally followed till $4^{d.}\,24^{h}$.

In Dec. a westerly wave (3.'0) occurred from $1^{d.}\,23\frac{1}{2}^{h}$ — $2^{d.}\,1^{h}$ and occasional slight undulations during the remainder of the disturbance.

" 10^{d} — 11^{d}. This disturbance commenced at $10^{d.}\,0^{h}$ with small undulations in H. F. lasting till 7^{h}: from $10^{d.}\,11^{h}$ — $20\frac{3}{4}^{h}$ the force decreased (.00488) and regained its normal at $11^{d.}\,5^{h}$ by a series of undulations ($\pm$.00110).

In Dec. small undulations occurred occasionally from $10^{d.}\,21^{h}$ — $11^{d.}\,5^{h}$ and in V. F. slight tremors.

" 17^{d} — 19^{d}. Slight tremors and undulations occurred occasionally in H. F. from $17^{d.}\,19^{h}$ — $18^{d.}\,6\frac{1}{2}^{h}$. From $18^{d.}\,9^{h}$ — 14^{h} the force decreased (.00541); remaining below its normal and fluctuating slightly until $19^{d.}\,1\frac{1}{2}^{h}$; it regained its normal at 2^{h} after an increase (.00440).

In Dec. and V. F. the movements were very slight.

" 27^{d} — 31^{d}. A prolonged though small disturbance, commenced in H. F. with small, rapid undulations from $27^{d.}\,20\frac{1}{2}^{h}$ — $28^{d.}\,12^{h}$: a double wave occurred from $28^{d.}\,20^{h}$ — $29^{d.}\,1^{h}$ (+.00229 and —.00233) followed by small, rapid undulations until $29^{d.}\,19^{h}$; larger undulations occurred from $29^{d.}\,21^{h}$ — $30^{d.}\,5^{h}$ and the disturbance ended at $31^{d.}\,2^{h}$ after a slightly accentuated diurnal movement on the 30th.

Small undulations occurred in Dec. throughout the disturbance, the most active period being from $28^{d}.4^{h}$ -9^{h}.

November 1^{d} $-$ 2^{d}. This disturbance commenced at $1^{d}.10^{h}$ with a sudden increase (.00176) in H. F. followed almost immediately by a gradual decrease of force (.00506) which lasted till $2^{d}.0\frac{1}{2}^{h}$, small waves occurring from $1^{d}.12^{h}$ $-14\frac{1}{2}^{h}$ ($-$.00255) $2^{d}.0^{h}$ $-0\frac{1}{2}^{h}$ ($+$.00264) and small undulations ($\pm$.00066) from $1^{d}.22^{h}$ -23^{h}: between $2^{d}.0\frac{1}{2}^{h}$ $-11\frac{1}{2}^{h}$ the force increased (.00370) with a small, shallow, positive wave (.00198) from $2^{d}.1^{h}$ -3^{h}: decreased (.00370) till 14^{h} and regained its normal by 23^{h}.

In Dec. and V. F. the movements were very slight.

" 17^{d} $-$ 18^{d}. From $17^{d}.8\frac{1}{2}^{h}$ $-19\frac{1}{2}^{h}$ the H. F. decreased (.00682); small oscillations occurred from $15\frac{1}{4}^{h}$ $-18\frac{1}{2}^{h}$ followed by a sharp-pointed, positive wave (.00352) till $19\frac{1}{2}^{h}$. From $17^{d}.19\frac{1}{2}^{h}$ $-18^{d}.6^{h}$ the force increased (.00594) with a long, shallow, negative wave (.00220) from $17^{d}.23\frac{1}{2}^{h}$ $-18^{d}.6^{h}$.

In Dec. and V. F. very slight movements occurred from $17^{d}.15^{h}$ -21^{h}.

December 11^{d} -13^{d}. This disturbance was preceded in H. F. by an accentuated diurnal variation on the 10th. After a sudden increase of force (.00176) at $11^{d}.8\frac{1}{4}^{h}$, a general decrease (.00541) set in, lasting till $14\frac{1}{2}^{h}$ and bearing a deep negative wave (.00836) from $11^{d}.8\frac{1}{2}^{h}$ -11^{h}: at $14\frac{1}{2}^{h}$ a rapid though irregular decrease set in (.01078) lasting till 16^{h} and followed almost immediately by an increase of force (.00682) till $20\frac{1}{2}^{h}$, when a further decrease occurred (.00374) lasting till $21\frac{1}{2}^{h}$. From $11^{d}.21\frac{1}{2}^{h}$ $-12^{d}.10^{h}$ a gradual increase occurred (.00673) with a small, positive wave at commencement (.00308); from $12^{d}.10^{h}$ -13^{h} the force decreased (.00510) and gradually regained its normal by $13^{d}.3^{h}$.

In Dec. small undulations occasionally took place from $10^{d}.8^{h}$ $-11^{d}.9^{h}$, when a decrease of westerly declination (16′) set in lasting till $14\frac{3}{4}^{h}$, the magnet returning to its normal position by 18^{h}. Three small westerly waves occurred (3.′0), (3.′0) and (3.′7) from $11^{d}.9^{h}$ -10^{h}, $14\frac{3}{4}^{h}$ $-15\frac{1}{2}$ and 21^{h} -23^{h} respectively.

An accentuated diurnal movement occurred in V. F. on the 9th, 10th and 11th and frequent small fluctuations from $11^{d}.8\frac{1}{4}^{h}$ -23^{h}.

" 15^{d}. A very small disturbance commenced in H. F. at $15^{d}.8^{h}$ with a general decrease of force (.00352) lasting till 12^{h}: the force regained its normal by 18^{h} when small undulations commenced and continued till $16^{d}.2^{h}$ with a sharp, positive wave (.00356) from 15^{d} $22\frac{3}{4}^{h}$ $-23\frac{1}{2}^{h}$.

" 20^{d} $-$ 22^{d}. In H. F. the most important feature of this large disturbance was a decrease of force (.02332) from $20^{d}.16^{h}$ -20^{h} followed by an increase (.01364) till $21^{d}.9^{h}$: other movements occurred as follows:— $20^{d}.4\frac{1}{2}^{h}$ -14^{h} an increase of force (.00594); 14^{h} -17^{h} small rapid fluctuations; and four positive waves (.00308) from $18\frac{3}{4}^{h}$ $-19\frac{1}{4}^{h}$; (.00572) from 21^{h} $-23\frac{1}{2}^{h}$; (.00594) steep, from $20^{d}.23\frac{1}{2}^{h}$ $-21^{d}.0\frac{1}{2}^{h}$; (.00396) from $21^{d}.20\frac{3}{4}^{h}$ $-21\frac{1}{4}^{h}$ steep at commencement. The mean ordinate for December 21^{d}. was (.00451) below the mean ordinate for the month.

In Dec. the most noticeable movements were:— $20^{d}.18\frac{1}{2}^{h}$ -19^{h} a wave ($+$5.′4); $21^{d}.0^{h}$ -2^{h} a double wave ($+$2.′0 and $-$2.′5) and three waves ($+$3.′0), ($+$2.′0) and ($-$2.′0) from $21^{d}.18^{h}$ $-19\frac{1}{2}^{h}$, $20\frac{3}{4}^{h}$ $-21\frac{1}{4}^{h}$ and $21^{d}.23\frac{1}{2}^{h}$ $-22^{d}.1^{h}$ respectively.

In V. F. the movements were generally small, the principal being a positive wave (.00110) from $20^{d}.13^{h}$ -17^{h}.

ROYAL ALFRED OBSERVATORY

MAURITIUS

RESULTS

OF

METEOROLOGICAL OBSERVATIONS

1897.

TABLE I.

Hourly and Monthly Means of the Atmospheric Pressure during the year 1897, with Highest and Lowest values.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	*December.	Yearly Means. 1897 a	Yearly Means. 1875-97 b	a—b.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	inch.
0h	29.756	29.739	29.785	29.886	29.923	29.956	30.007	30.030	30.022	29.971	29.867	29.789	29.894	29.904	— .010
1	29.741	29.726	29.776	29.877	29.916	29.951	30.004	30.021	30.011	29.958	29.852	29.775	29.884	29.894	— .010
2	29.726	29.708	29.761	29.863	29.905	29.938	29.991	30.008	29.999	29.944	29.838	29.763	29.870	29.881	— .011
3	29.719	29.700	29.751	29.856	29.896	29.930	29.982	30.000	29.992	29.937	29.834	29.758	29.863	29.873	— .010
4	29.719	29.697	29.744	29.850	29.892	29.926	29.977	29.993	29.987	29.936	29.836	29.757	29.859	29.870	— .011
5	29.731	29.705	29.748	29.853	29.894	29.927	29.977	29.997	29.994	29.944	29.842	29.763	29.865	29.875	— .010
6	29.744	29.712	29.755	29.860	29.903	29.934	29.984	30.006	30.005	29.955	29.856	29.776	29.874	29.886	— .012
7	29.755	29.730	29.768	29.874	29.920	29.950	29.997	30.019	30.019	29.968	29.869	29.790	29.888	29.899	— .011
8	29.760	29.741	29.781	29.888	29.933	29.964	30.013	30.033	30.031	29.976	29.875	29.794	29.899	29.910	— .011
9	29.763	29.750	29.790	29.901	29.944	29.977	30.026	30.046	30.038	29.980	29.877	29.797	29.907	29.917	— .010
10	29.756	29.746	29.786	29.897	29.940	29.974	30.024	30.045	30.030	29.972	29.868	29.791	29.902	29.913	— .011
11	29.749	29.742	29.781	29.884	29.925	29.962	30.013	30.033	30.018	29.961	29.859	29.784	29.893	29.903	— .010
12	29.739	29.728	29.766	29.863	29.905	29.943	29.992	30.010	29.996	29.943	29.843	29.767	29.875	29.885	— .010
13	29.730	29.714	29.751	29.846	29.888	29.925	29.971	29.992	29.981	29.928	29.828	29.758	29.859	29.869	— .010
14	29.716	29.698	29.735	29.829	29.873	29.912	29.955	29.976	29.966	29.911	29.814	29.744	29.844	29.855	— .011
15	29.709	29.691	29.728	29.826	29.872	29.911	29.953	29.974	29.962	29.906	29.809	29.735	29.840	29.849	— .009
16	29.703	29.683	29.729	29.827	29.875	29.913	29.957	29.976	29.965	29.906	29.809	29.732	29.840	29.850	— .010
17	29.711	29.689	29.738	29.838	29.888	29.925	29.968	29.987	29.976	29.917	29.819	29.740	29.850	29.858	— .008
18	29.725	29.700	29.750	29.849	29.900	29.933	29.975	29.998	29.990	29.932	29.834	29.754	29.862	29.872	— .010
19	29.743	29.718	29.768	29.867	29.916	29.949	29.988	30.015	30.008	29.952	29.855	29.773	29.879	29.889	— .010
20	29.754	29.733	29.781	29.884	29.931	29.961	30.000	30.030	30.024	29.966	29.868	29.785	29.893	29.904	— .011
21	29.765	29.744	29.796	29.895	29.939	29.971	30.009	30.040	30.037	29.977	29.878	29.796	29.904	29.914	— .010
22	29.771	29.749	29.802	29.895	29.939	29.971	30.012	30.041	30.036	29.978	29.882	29.803	29.907	29.917	— .010
23	29.770	29.747	29.800	29.891	29.937	29.967	30.011	30.039	30.035	29.976	29.877	29.799	29.904	29.914	— .010
Reduced to sea-level. Highest...	30.109	30.073	30.138	30.189	30.229	30.352	30.332	30.307	30.400	30.372	30.186	30.078	30.230	...	
Reduced to sea-level. Lowest...	29.630	29.662	29.815	29.899	29.901	29.952	30.028	29.987	30.026	29.913	29.915	28.922	29.804	...	
Reduced to sea-level. Range ...	0.479	0.411	0.323	0.290	0.328	0.400	0.304	0.320	0.374	0.459	0.271	1.156	0.426	...	

* In forming the hourly means, the low barometer readings for the 5th, and 6th, have been rejected.

TABLE II.

Daily and Monthly Means of the Atmospheric Pressure during the year 1897.

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1	29.877	29.829	29.709	29.853	29.755	29.885	30.000	29.852	29.984	30.149	29.925	29.800
2	29.821	29.834	29.709	29.870	29.816	29.901	30.068	29.884	29.925	30.131	29.898	29.801
3	29.823	29.848	29.709	29.822	29.874	29.896	30.099	29.998	29.903	30.110	29.925	29.791
4	29.818	29.857	29.689	29.767	29.890	29.921	30.081	30.070	29.881	30.063	29.953	29.706
5	29.788	29.849	29.743	29.773	29.917	29.955	30.057	30.079	30.024	30.034	29.932	29.471
6	29.789	29.832	29.760	29.847	29.902	29.964	30.041	30.059	30.124	30.008	29.868	29.687
7	29.788	29.768	29.704	29.903	29.900	29.893	30.043	30.042	30.162	29.955	29.804	29.847
8	29.745	29.727	29.686	29.899	29.936	29.821	30.038	30.029	30.139	29.913	29.785	29.820
9	29.733	29.751	29.712	29.889	29.935	29.799	30.016	30.026	30.100	29.950	29.855	29.791
10	29.759	29.745	29.732	29.852	29.924	29.801	30.003	30.065	30.020	30.015	29.907	29.805
11	29.774	29.708	29.765	29.833	29.970	29.831	29.981	30.071	29.976	30.042	29.888	29.808
12	29.706	29.671	29.821	29.843	30.001	29.879	29.944	30.044	29.971	30.008	29.849	29.785
13	29.651	29.668	29.862	29.831	29.941	29.933	29.955	29.992	30.002	29.963	29.825	29.790
14	29.705	29.668	29.881	29.828	29.878	29.993	29.962	29.971	30.025	29.936	29.851	29.816
15	29.760	29.667	29.913	29.839	29.898	30.105	29.946	30.002	30.011	29.926	29.852	29.798
16	29.776	29.642	29.902	29.821	29.936	30.107	29.971	30.020	29.989	29.940	29.851	29.783
17	29.801	29.634	29.848	29.824	29.924	30.076	30.038	30.029	30.014	29.963	29.877	29.767
18	29.808	29.664	29.824	29.887	29.896	30.013	30.044	30.040	30.014	29.956	29.914	29.792
19	29.803	29.659	29.813	29.941	29.896	29.967	30.005	30.036	29.955	29.894	29.935	29.807
20	29.771	29.598	29.817	29.937	29.899	29.970	29.950	30.074	29.930	29.826	29.899	29.773
21	29.767	29.533	29.799	29.943	29.885	29.969	29.963	30.043	29.934	29.772	29.841	29.736
22	29.786	29.558	29.754	29.966	29.875	29.984	29.981	29.987	29.958	29.802	29.807	29.727
23	29.760	29.668	29.722	29.948	29.906	30.042	29.960	29.969	29.944	29.831	29.790	29.719
24	29.656	29.749	29.679	29.936	29.903	30.029	29.913	29.978	29.956	29.867	29.801	29.709
25	29.556	29.815	29.689	29.890	29.912	29.962	29.896	29.978	29.970	29.887	29.780	29.665
26	29.491	29.795	29.713	29.872	29.927	29.920	29.902	30.000	29.963	29.933	29.760	29.672
27	29.539	29.717	29.681	29.889	29.938	29.899	29.925	30.022	29.993	29.963	29.771	29.709
28	29.594	29.720	29.723	29.898	29.968	29.927	29.959	30.016	30.040	29.929	29.776	29.748
29	29.694		29.764	29.833	29.977	29.952	30.028	29.999	30.102	29.871	29.782	29.789
30	29.779		29.782	29.763	29.948	29.946	30.024	30.008	30.142	29.883	29.787	29.835
31	29.816		29.821		29.906		29.933	30.021		29.922		29.794
Monthly Means ...	29.740	29.720	29.765	29.867	29.911	29.945	29.991	30.013	30.005	29.950	29.850	29.759
Monthly Means at sea-level. 1897	29.927	29.908	29.954	30.057	30.101	30.137	30.183	30.205	30.197	30.142	30.039	29.947
Monthly Means at sea-level. 1875–97	29.942	29.932	29.967	30.016	30.087	30.164	30.203	30.206	30.197	30.135	30.075	30.006

The mean of the twelve monthly values, not reduced to sea-level, is 29.876.

TABLE III.

Mean Diurnal Variation and Range of the Atmospheric Pressure for each month of the year, deduced from 23 years' Observations, 1875-97.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Means.
	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.
0h	+ .015	+ .019	+ .018	+ .017	+ .015	+ .015	+ .015	+ .018	+ .020	+ .017	+ .017	+ .015	+ .017
1	+ .003	+ .006	+ .006	+ .007	+ .006	+ .008	+ .011	+ .010	+ .010	+ .007	+ .004	+ .001	+ .007
2	− .011	− .009	− .009	− .007	− .005	− .004	− .002	− .002	− .002	− .007	− .009	− .011	− .006
3	− .018	− .017	− .018	− .015	− .014	− .012	− .009	− .010	− .011	− .014	− .014	− .017	− .014
4	− .020	− .020	− .024	− .021	− .019	− .017	− .015	− .017	− .015	− .015	− .013	− .018	− .018
5	− .011	− .015	− .018	− .017	− .017	− .017	− .014	− .014	− .010	− .007	− .007	− .010	− .013
6	+ .004	− .005	− .008	− .007	− .006	− .008	− .007	− .004	+ .002	+ .005	+ .007	+ .004	− .002
7	+ .015	+ .009	+ .005	+ .008	+ .009	+ .006	+ .006	+ .009	+ .016	+ .018	+ .018	+ .016	+ .011
8	+ .021	+ .019	+ .020	+ .021	+ .024	+ .022	+ .022	+ .023	+ .028	+ .028	+ .024	+ .021	+ .023
9	+ .023	+ .025	+ .028	+ .031	+ .035	+ .034	+ .035	+ .035	+ .034	+ .030	+ .026	+ .023	+ .030
10	+ .018	+ .022	+ .027	+ .030	+ .032	+ .030	+ .033	+ .033	+ .028	+ .023	+ .018	+ .018	+ .026
11	+ .011	+ .015	+ .019	+ .019	+ .018	+ .019	+ .021	+ .021	+ .015	+ .011	+ .009	+ .012	+ .016
12	.000	+ .002	+ .002	− .003	− .003	− .001	.000	− .001	− .007	− .007	− .006	− .002	− .002
13	− .010	− .012	− .015	− .020	− .023	− .022	− .020	− .020	− .024	− .024	− .021	− .013	− .019
14	− .024	− .026	− .029	− .034	− .036	− .034	− .035	− .036	− .040	− .039	− .035	− .026	− .033
15	− .034	− .034	− .037	− .038	− .038	− .036	− .038	− .041	− .047	− .045	− .042	− .036	− .039
16	− .039	− .037	− .036	− .035	− .034	− .033	− .035	− .038	− .044	− .044	− .043	− .039	− .038
17	− .032	− .031	− .028	− .025	− .024	− .023	− .025	− .029	− .034	− .033	− .032	− .031	− .029
18	− .017	− .018	− .015	− .013	− .013	− .012	− .016	− .018	− .019	− .016	− .016	− .016	− .016
19	+ .002	.000	+ .002	+ .002	+ .002	+ .002	− .002	− .002	− .001	+ .003	+ .004	+ .003	+ .001
20	+ .015	+ .015	+ .017	+ .019	+ .017	+ .015	+ .012	+ .013	+ .017	+ .019	+ .019	+ .016	+ .016
21	+ .026	+ .028	+ .031	+ .029	+ .025	+ .023	+ .020	+ .023	+ .029	+ .030	+ .029	+ .026	+ .027
22	+ .033	+ .033	+ .033	+ .029	+ .025	+ .025	+ .022	+ .024	+ .030	+ .032	+ .035	+ .033	+ .029
23	+ .030	+ .030	+ .028	+ .025	+ .023	+ .022	+ .021	+ .023	+ .027	+ .028	+ .030	+ .029	+ .026
Range from. 3h or 4h − 9h	.043	.045	.052	.052	.054	.051	.050	.052	.049	.045	.040	.041	.048
Range from. 9h − 15h or 16h	.062	.062	.065	.069	.073	.070	.073	.076	.081	.075	.069	.062	.070
Range from. 15h or 16h − 22h	.072	.070	.070	.067	.063	.061	.060	.065	.077	.077	.078	.072	.069
Range from. 22h − 3h or 4h	.053	.053	.057	.050	.044	.042	.037	.041	.045	.047	.049	.051	.047
Mean Diurnal Range ...	.057	.057	.061	.059	.058	.056	.055	.058	.063	.061	.059	.056	.058

TABLE IV.

Hourly and Monthly Means of the Temperature of the Air in Shade during the year 1897.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.		Variation + above − below } Mean.	
													1897.	1891-97.	1897.	1891-97.
0h ...	76°.1	76°.1	73°.3	70°.7	67°.7	67°.5	65°.7	66°.3	66°.3	66°.7	72°.2	76°.2	70°.4	69°.8	−3°.8	−3°.7
1 ...	75.7	75.9	73.0	70.7	67.3	67.0	65.7	66.0	65.7	66.3	71.6	75.8	70.1	69.5	−4.1	−4.0
2 ...	75.2	75.6	72.7	70.4	66.9	67.1	65.5	65.7	65.4	65.8	71.0	75.4	69.7	69.2	−4.5	−4.3
3 ...	74.8	75.4	72.6	70.4	66.4	67.0	65.2	65.4	65.4	65.5	70.6	75.2	69.5	68.9	−4.7	−4.6
4 ...	74.6	75.4	72.4	69.9	66.5	66.9	65.2	65.3	65.4	65.3	70.4	74.9	69.3	68.7	−4.9	−4.8
5 ...	74.5	75.2	72.3	70.0	66.5	66.7	65.0	65.3	65.0	64.8	70.0	74.7	69.2	68.5	−5.0	−5.0
6 ...	74.4	75.1	72.0	69.8	66.3	66.5	64.8	65.0	64.9	66.0	71.5	75.5	69.3	68.7	−4.9	−4.8
7 ...	77.9	76.9	74.1	71.2	67.4	67.2	65.2	65.7	67.5	71.3	76.4	78.6	71.6	70.9	−2.6	−2.6
8 ...	80.3	79.0	78.6	75.5	72.6	70.0	68.7	69.8	71.3	74.5	79.6	80.7	75.1	74.4	+0.9	+0.9
9 ...	82.9	80.2	81.0	77.8	75.1	73.1	71.8	72.4	73.2	76.5	80.8	82.4	77.3	76.6	+3.1	+3.1
10 ...	84.3	81.6	82.8	79.2	76.6	74.3	73.8	73.7	75.0	78.1	82.6	83.6	78.8	78.2	+4.6	+4.7
11 ...	85.1	83.0	84.1	80.7	78.1	75.8	74.5	74.9	75.9	79.1	83.8	84.6	80.0	79.0	+5.8	+5.5
12 ...	85.1	83.1	83.7	81.2	78.4	76.3	75.5	75.7	76.5	79.3	84.5	85.3	80.4	79.6	+6.2	+6.1
13 ...	84.8	83.5	83.9	81.8	78.4	76.1	75.8	76.0	76.6	78.7	84.7	85.8	80.5	79.6	+6.3	+6.1
14 ...	84.5	83.3	83.6	81.3	78.1	75.7	75.4	75.5	76.1	78.9	84.1	85.2	80.1	79.3	+5.9	+5.8
15 ...	84.4	82.8	83.3	80.4	77.5	74.9	74.6	74.2	75.6	78.2	83.1	84.9	79.5	78.6	+5.3	+5.1
16 ...	83.5	81.8	81.8	79.1	76.3	73.2	73.3	73.6	74.4	76.7	81.8	83.6	78.3	77.6	+4.1	+4.1
17 ...	82.7	80.7	80.3	77.3	74.5	71.9	71.6	71.6	72.3	75.1	80.3	82.6	76.7	76.1	+2.5	+2.6
18 ...	81.2	79.0	78.0	74.9	71.9	70.3	69.3	69.7	70.0	72.8	78.0	80.6	74.6	74.1	+0.4	+0.6
19 ...	79.4	77.6	76.2	73.6	70.5	69.4	68.1	68.5	68.7	71.1	76.3	79.1	73.2	72.6	−1.0	−0.9
20 ...	78.3	77.0	75.2	72.8	69.5	68.8	67.3	67.9	67.9	69.9	74.9	78.1	72.3	71.7	−1.9	−1.8
21 ...	77.6	76.9	74.7	72.3	68.8	68.5	66.7	67.5	67.6	68.8	74.1	77.5	71.8	71.1	−2.4	−2.4
22 ...	77.0	76.6	74.0	71.8	68.3	68.1	66.3	67.0	67.2	68.1	73.3	76.8	71.2	70.6	−3.0	−2.9
23 ...	76.4	76.5	73.6	71.2	67.8	67.6	66.0	66.9	66.8	67.4	72.7	76.5	70.8	70.2	−3.4	−3.3

TABLE V.

Daily and Monthly Means of the Temperature of the Air in Shade during the year 1897.

Days.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Days.
1d		78.5°	78.0°	77.2°	75.5°	74.8°	72.4°	68.2°	67.3°	69.2°	68.2°	74.5°	77.9°	1d
2		80.3	78.0	77.8	77.4	71.5	72.9	67.9	67.5	70.9	69.9	76.9	79.8	2
3		79.4	75.7	79.4	76.9	71.6	74.0	68.3	68.7	70.3	70.1	77.5	79.7	3
4		80.6	76.7	81.3	75.0	69.8	73.3	68.2	69.4	69.9	70.4	76.5	78.9	4
5		80.4	76.7	80.7	74.4	71.3	71.2	70.2	70.0	65.3	69.2	75.8	77.4	5
6		80.9	78.2	78.3	76.3	71.5	69.9	70.6	69.7	67.7	71.0	75.6	77.9	6
7		80.0	78.8	77.9	75.1	69.5	69.4	69.2	69.5	68.6	69.9	76.4	80.4	7
8		77.5	78.0	79.8	74.7	69.2	70.6	67.8	70.3	69.0	68.4	76.6	80.3	8
9		80.0	78.8	78.7	74.6	71.0	70.5	66.9	69.7	68.4	68.7	76.0	80.5	9
10		80.3	79.3	75.6	74.0	71.9	72.4	67.3	69.9	69.7	69.9	76.8	79.1	10
11		80.5	79.0	74.4	75.3	72.1	73.4	67.9	69.5	70.5	70.9	76.0	78.1	11
12		82.2	79.6	75.9	74.4	70.4	73.6	69.5	68.8	71.1	70.9	76.8	79.5	12
13		80.8	80.9	76.8	74.4	68.5	72.8	66.9	71.0	70.3	71.8	76.4	79.2	13
14		79.3	80.6	77.4	74.1	69.9	69.7	67.2	70.8	72.4	70.9	76.7	79.0	14
15		79.8	81.0	76.6	72.7	70.7	67.1	68.5	68.6	70.7	70.3	76.8	78.2	15
16		81.3	79.7	77.5	72.3	71.5	65.3	70.1	70.5	72.4	69.8	79.0	79.9	16
17		82.0	79.4	76.3	71.7	71.3	66.0	70.5	70.1	71.2	72.3	78.8	80.6	17
18		81.8	79.3	79.0	72.8	75.0	67.9	69.0	68.8	70.8	70.3	77.5	80.6	18
19		82.1	77.2	78.5	74.5	75.3	68.3	69.0	69.7	71.3	69.6	78.0	80.5	19
20		79.5	79.0	77.4	73.7	71.8	69.9	70.5	68.5	72.0	70.2	75.7	79.5	20
21		80.4	80.9	75.4	73.6	68.7	68.2	70.1	69.2	71.3	72.9	76.2	78.0	21
22		81.7	79.7	76.2	74.0	70.3	68.7	71.3	71.1	71.7	76.6	75.4	77.8	22
23		79.9	79.6	78.3	75.1	70.2	69.4	71.2	69.8	69.9	76.4	77.8	77.9	23
24		78.7	77.1	77.4	75.9	74.0	69.8	69.7	70.2	70.2	76.3	77.7	78.6	24
25		79.2	77.6	77.8	76.6	73.6	67.6	70.2	69.4	70.5	75.3	79.5	80.1	25
26		77.0	78.7	76.3	76.2	72.7	70.4	69.8	70.3	70.3	74.5	76.4	81.9	26
27		76.9	77.7	75.7	74.8	73.8	72.3	67.7	70.0	70.5	74.8	77.7	81.7	27
28		77.6	77.6	76.8	75.8	72.5	73.5	70.2	69.6	68.6	74.3	78.0	83.2	28
29		76.0		75.8	75.1	71.7	72.2	71.5	69.6	68.4	75.2	78.2	82.8	29
30		77.1		76.2	75.8	70.9	69.8	70.1	69.1	67.6	75.3	79.1	81.5	30
31		76.2		76.3		71.3		70.0	70.0		73.8		81.0	31
Monthly	1897	79.6	78.7	77.4	74.8	71.6	70.4	69.2	69.6	70.0	71.9	77.0	79.7	Monthly
Means.	1891-97	78.7	78.5	77.0	75.4	72.1	68.9	67.8	68.2	69.7	72.4	75.1	78.1	Means.

The mean Temperature of the Air for 1897 = 74.2°.

TABLE VI.

Daily and Monthly Maximum Temperature in Thermograph Screen during the year 1897.

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Days.
1d	85.4°	85.2°	84.0°	87.0°	82.8°	82.9°	75.8°	77.9°	78.8°	74.9°	82.9°	86.7°	... ... 1d
2	88.9	85.0	85.2	86.0	81.2	81.3	74.6	77.9	79.0	78.4	90.0	89.7	 2
3	87.2	81.7	86.6	84.8	80.9	81.9	75.2	79.1	79.1	79.2	85.2	88.6	 3
4	89.8	81.2	88.8	85.0	76.6	79.9	74.9	75.7	78.8	76.8	83.9	85.4	 4
5	88.4	81.6	87.9	84.7	77.2	78.4	76.8	76.4	71.6	75.9	84.9	82.1	 5
6	90.5	84.2	85.4	84.0	78.0	78.3	76.8	76.7	74.5	80.4	85.8	84.3	 6
7	89.2	85.0	86.4	82.4	78.5	76.2	76.9	77.2	76.8	77.9	88.2	88.9	 7
8	87.5	84.4	88.0	82.8	76.4	77.3	76.6	77.4	76.2	77.9	87.8	89.4	 8
9	89.9	85.4	87.0	82.7	78.5	77.9	73.2	77.9	76.4	77.8	87.2	88.9	 9
10	89.6	85.0	87.1	82.4	80.1	78.5	75.3	77.1	77.4	79.9	85.9	88.6	 10
11	89.3	85.9	82.5	83.1	79.9	79.8	74.2	76.6	78.9	78.9	84.4	86.7	 11
12	91.9	87.3	86.8	82.6	78.7	79.8	77.8	78.8	79.4	78.2	87.6	89.0	 12
13	88.3	87.7	85.5	82.2	76.9	80.4	75.9	77.7	77.9	80.2	85.1	87.8	 13
14	85.6	87.0	86.3	83.9	80.8	77.6	76.9	79.6	79.8	79.7	85.0	88.5	 14
15	87.1	87.6	85.2	82.9	82.2	73.4	76.3	78.7	78.2	80.6	83.7	86.4	 15
16	90.2	86.3	86.6	82.0	81.9	72.4	78.9	78.9	79.9	79.1	86.9	87.8	 16
17	91.9	86.0	86.0	82.9	79.9	74.4	77.9	76.9	78.6	80.5	85.9	88.9	 17
18	90.9	86.5	87.0	83.6	82.7	75.0	74.9	75.9	78.5	81.2	83.9	87.9	 18
19	90.4	84.2	86.3	83.4	84.6	76.0	76.9	76.6	79.6	83.5	86.4	88.4	 19
20	85.9	88.5	85.1	83.6	84.4	76.7	78.4	76.9	81.4	82.4	84.2	87.5	 20
21	87.4	87.4	82.1	83.9	81.9	77.0	76.3	79.1	80.4	83.9	83.7	83.0	 21
22	90.8	85.0	83.9	81.3	81.9	78.0	77.6	78.9	80.9	83.7	85.3	80.0	 22
23	86.4	85.2	86.7	81.4	80.2	76.0	79.6	77.3	79.1	85.9	86.7	81.9	 23
24	87.6	86.2	86.5	83.6	81.0	77.0	78.1	78.6	80.9	87.2	86.8	84.0	 24
25	87.9	85.7	87.0	84.3	81.4	76.3	79.8	78.1	78.5	86.4	89.6	85.0	 25
26	81.8	86.4	86.4	83.5	78.1	75.3	80.3	78.4	77.2	86.3	86.9	88.6	 26
27	86.4	82.0	86.6	79.8	79.9	77.9	78.2	76.9	78.9	84.5	88.7	87.8	 27
28	85.9	81.9	87.3	82.5	77.9	81.5	78.5	77.4	77.2	84.8	89.6	88.8	 28
29	84.2		85.9	80.9	78.7	79.3	79.1	77.0	76.2	86.2	89.5	89.9	 29
30	83.7		87.3	83.8	78.9	78.5	78.8	76.8	75.6	87.8	87.7	89.4	 30
31	82.9		86.2		81.1		77.3	78.7		82.1		88.6	 31
Monthly Means..	87.8	85.2	86.1	83.2	80.1	77.8	77.0	77.5	78.2	81.4	86.3	87.1	Monthly Means.
Highest	91.9	88.5	88.8	87.0	84.6	82.9	80.3	79.6	81.4	87.8	90.0	89.9	Highest.
Day	12 and 17	20	4	1	19	1	26	14	20	30	2	29	Day.

TABLE VII.

Daily and Monthly Minimum Temperature in Thermograph Screen during the year 1897.

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Days.
1d	73.9°	71.2°	73.1°	64.4°	66.7°	63.8°	61.3°	57.9°	60.8°	63.3°	63.5°	72.8°	... ... 1d
2	74.5	72.9	73.3	70.9	61.7	64.8	61.9	58.0	62.9	62.9	68.4	72.9	 2
3	72.9	72.4	74.2	70.5	64.5	70.1	63.7	58.6	63.8	65.7	72.1	71.6	 3
4	73.5	72.9	76.5	66.8	64.1	69.4	62.4	64.9	61.0	66.0	69.6	75.0	 4
5	75.9	72.6	75.4	66.7	66.1	64.5	64.3	65.8	61.2	64.4	68.4	73.3	 5
6	75.4	73.8	74.1	71.5	66.9	61.5	66.9	65.0	61.8	64.9	67.3	73.5	 6
7	74.9	74.5	68.8	70.6	58.2	64.8	60.3	64.8	61.9	61.3	64.9	73.8	 7
8	72.1	75.2	75.3	68.3	64.0	67.3	59.8	65.3	63.9	59.9	65.8	69.9	 8
9	72.8	74.9	72.7	69.0	65.8	63.9	59.1	61.9	62.8	60.4	65.8	73.2	 9
10	72.1	74.5	69.3	67.7	65.9	69.6	58.8	61.9	62.9	61.5	68.4	71.8	 10
11	71.4	74.2	67.9	70.1	66.8	69.3	64.7	65.6	63.1	64.5	70.8	73.2	 11
12	73.4	71.5	66.7	68.3	63.0	70.2	61.9	64.9	64.9	65.8	67.3	72.0	 12
13	75.9	75.2	69.7	69.8	60 8	65.2	58.9	66.9	64.9	64.1	69.8	71.5	 13
14	75.4	76.6	69.7	66.1	61.2	62.9	58.9	63.9	67.6	61.7	68.0	71.8	 14
15	73.7	77.5	69.8	63.9	61.2	63.0	61.0	59.1	65.8	58.3	69.5	71.0	 15
16	74.9	76.9	71.6	62.9	62.1	61.9	62.9	64.8	67.9	62.3	73.6	73.0	 16
17	74.9	75.3	65.3	62.7	61.9	61.9	64.8	65.5	66.7	65.0	73.8	72.5	 17
18	74.9	76.0	73.5	63.1	70.8	61.4	65.6	65.6	65.4	60.9	70.9	74.9	 18
19	75.8	74.9	74.4	66.9	69.2	62.3	63.4	64.4	65.8	60.9	71.8	73.1	 19
20	75.1	74.4	73.1	65.7	60.0	60.7	63.9	64.3	65.8	57.7	69.0	73.7	 20
21	74.9	76.8	67.8	64.1	56.5	58.8	65.8	61.9	62.1	60.7	70.0	74.9	 21
22	75.3	76.4	71.1	69.5	60.1	62.1	67.5	66.8	64.8	70.9	66.7	75.4	 22
23	75.3	74.2	71.8	72.2	58.9	64.8	64.3	64.9	62.3	69.9	71.4	74.7	 23
24	74.7	69.0	70.7	73.0	70.0	65.6	61.8	64.8	59.9	69.3	69.4	76.6	 24
25	72.1	69.6	70.9	73.5	68.2	56.9	61.5	60.3	64.9	66.1	71.8	76.1	 25
26	71.0	72.9	68.9	73.1	69.8	67.7	62.8	65.9	64.0	63.2	69.4	77.8	 26
27	68.8	74.0	67.5	72.2	70.9	68.6	60.5	65.0	63.9	66.8	66.8	75.0	 27
28	70.8	74.3	69.9	71.9	69.9	70.2	63.3	65.8	63.1	64.6	68.0	78.9	 28
29	70.8		66.8	71.1	65.7	66.9	65.2	62.4	63.6	63.1	69.0	76.6	 29
30	70.9		70.1	69.6	66.5	63.9	62.9	65.1	62.3	64.8	72.8	75.1	 30
31	68.4		69.4		64.8		62.9	64.2		63.8		74.0	 31
Monthly Means.	73.4	74.1	70.9	68.5	64.6	64.8	62.7	63.8	63.7	63.7	69.1	73.9	Monthly Means.
Lowest.	68.4	69.0	65.3	62.7	56.5	56.9	58.8	57.9	59.9	57.7	63.5	69.9	Lowest.
Day.	31	24	17	17	21	25	10	1	24	20	1	8	Day.

TABLE VIII.

Daily and Monthly Range of Temperature in Thermograph Screen during the year 1897.

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Days.
1d	11.5°	14.0°	10.9°	22.6°	16.1°	19.1°	14.5°	20.0°	18.0°	11.6°	19.4°	13.9°	... ... 1d
2	14.4	12.1	11.9	15.1	19.5	16.5	12.7	19.9	16.1	15.5	21.6	16.8	 2
3	14.3	9.3	12.4	14.3	16.4	11.8	11.5	20.5	15.3	13.5	13.1	17.0	 3
4	16.3	8.3	12.3	18.2	12.5	10.5	12.5	10.8	17.8	10.8	14.3	10.4	 4
5	12.5	9.0	12.5	18.0	11.1	13.9	12.5	10.6	10.4	11.5	16.5	8.8	 5
6	15.1	10.4	11.3	12.5	11.1	16.8	9.9	11.7	12.7	15.5	18.5	10.8	 6
7	14.3	10.5	17.6	11.8	20.3	11.4	16.6	12.4	14.9	16.6	23.3	15.1	 7
8	15.4	9.2	12.7	14.5	12.4	10.0	16.8	12.1	12.3	18.0	22.0	19.5	 8
9	17.1	10.5	14.3	13.7	12.7	14.0	14.1	16.0	13.6	17.4	21.4	15.7	 9
10	17.5	10.5	17.8	14.7	14.2	8.9	16.5	15.2	14.5	18.4	17.5	16.8	 10
11	17.9	11.7	14.6	13.0	13.1	10.5	9.5	11.0	15.8	14.4	13.6	13.5	 11
12	18.5	15.8	20.1	14.3	15.7	9.6	15.9	8.9	14.5	12.4	20.3	17.0	 12
13	12.4	12.5	15.8	12.4	16.1	15.2	17.0	10.8	13.0	16.1	15.3	16.3	 13
14	10.2	10.4	16.6	17.8	19.6	14.7	18.0	15.7	12.2	18.0	17.0	16.7	 14
15	13.4	10.1	15.4	19.0	21.0	10.4	15.3	19.6	12.4	22.3	14.2	15.4	 15
16	15.3	9.4	15.0	19.1	19.8	10.5	16.0	14.1	12.0	16.8	13.3	14.8	 16
17	17.0	10.7	20.7	20.2	18.0	12.5	13.1	11.4	11.9	15.5	12.1	16.4	 17
18	16.0	10.5	13.5	20.5	11.9	13.6	9.3	10.3	13.1	20.3	13.0	13.0	 18
19	14.6	9.3	11.9	16.5	15.4	13.7	13.5	12.2	13.8	22.6	14.6	15.3	 19
20	10.8	14.1	12.0	17.9	24.4	16.0	14.5	12.6	15.6	24.7	15.2	13.8	 20
21	12.5	10.6	14.3	19.8	25.4	18.2	10.5	17.2	18.3	23.2	13.7	8.1	 21
22	15.0	8.6	12.8	11.8	21.8	15.9	10.1	12.1	16.1	12.8	18.6	4.6	 22
23	11.1	11.0	14.9	9.2	21.3	11·2	15.3	12.4	16.8	16.0	15.3	7.2	 23
24	12.9	17.2	15.8	10.6	11.0	11.4	16.3	13.8	21.0	17.9	17.4	7.4	 24
25	15.8	16.1	16.1	10.8	13.2	19.4	18.3	17.8	13.6	20.3	17.8	8.9	 25
26	10.8	13.5	17.5	10.4	8.3	7.6	17.5	12.5	13.2	23.1	17.5	10.8	 26
27	17.6	8.0	19.1	7.6	9.0	9.3	17.7	11.9	15.0	17.7	21.9	12.8	 27
28	15.1	7.6	17.4	10.6	8.0	11.3	15.2	11.6	14.1	20.2	21.6	9.9	 28
29	13.4		19.1	9.8	13.0	12.4	13.9	14.6	12.6	23.1	20.5	13.3	 29
30	12.8		17.2	14.2	12.4	14.6	15.9	11.7	13.3	23.0	14.9	14.3	 30
31	14.5		16.8		16.3		14.4	14.5		18.3		14.6	 31
Monthly Means.	14.4	11.1	15.2	14.7	15.5	13.0	14.3	13.7	14.5	17.7	17.2	13.2	Monthly Means.
Range in month.	23.5	19.5	23.5	24.3	28.1	26.0	21.5	21.7	21.5	30.1	26.5	20.0	Range in month.

TABLE IX.

Hourly and Monthly Means of the Temperature of Evaporation during the year 1897.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.		Variation. + above, − below Mean.	
													1897.	1891-97.	1897.	1891-97.
0h ...	73.3°	73.2°	70.4°	67.5°	63.9°	64.3°	62.4°	62.9°	62.6°	63.7°	68.3°	73.6°	67.2°	67.0°	−1.4°	−1.5°
1 ...	73.1	73.2	70.3	67.4	63.7	64.1	62.3	62.8	62.5	63.4	68.1	73.4	67.0	66.8	−1.6	−1.7
2 ...	72.8	72.9	70.0	67.4	63.3	64.1	62.3	62.7	62.2	63.0	67.8	73.1	66.8	66.6	−1.8	−1.9
3 ...	72.5	72.9	69.8	67.3	63.0	64.0	62.1	62.4	62.2	63.0	67.6	73.1	66.7	66.4	−1.9	−2.1
4 ...	72.4	72.7	69.6	67.1	63.1	63.8	62.0	62.1	62.1	62.8	67.4	72.8	66.5	66.3	−2.1	−2.2
5 ...	72.4	72.7	69.6	67.2	63.1	63.8	62.0	62.3	61.8	62.5	67.3	72.7	66.4	66.1	−2.2	−2.4
6 ...	72.6	72.5	69.5	66.9	63.0	63.6	61.8	62.2	61.6	63.7	68.4	73.4	66.6	66.3	−2.0	−2.2
7 ...	74.5	73.8	71.0	67.9	63.9	63.7	62.1	62.4	63.1	66.6	70.5	75.2	67.9	67.7	−0.7	−0.8
8 ...	75.1	74.8	72.8	69.9	66.7	65.7	64.3	64.9	64.6	67.4	71.1	75.4	69.4	69.4	+0.8	+0.9
9 ...	76.1	75.1	73.3	70.7	67.4	66.8	65.4	65.7	65.2	67.9	71.5	75.9	70.1	70.0	+1.5	+1.5
10 ...	76.2	75.5	73.4	70.5	67.5	67.0	65.8	65.9	65.3	68.3	71.9	76.1	70.3	70.5	+1.7	+2.0
11 ...	76.4	75.8	74.0	70.8	67.9	67.4	66.1	66.4	65.4	68.4	72.2	76.4	70.6	70.6	+2.0	+2.1
12 ...	76.2	75.9	73.9	71.0	68.0	67.3	66.1	66.3	65.4	68.6	72.2	76.6	70.6	70.8	+2.0	+2.3
13 ...	76.4	76.1	74.1	71.3	68.1	67.6	66.0	66.4	65.8	68.4	72.1	76.6	70.7	70.8	+2.1	+2.3
14 ...	76.1	75.7	73.8	70.8	68.2	67.4	65.7	66.3	65.5	68.5	72.0	76.2	70.5	70.7	+1.9	+2.2
15 ...	76.4	75.6	73.6	70.7	68.1	67.1	65.9	65.9	65.3	68.1	71.8	76.0	70.4	70.4	+1.8	+1.9
16 ...	75.6	75.3	73.1	70.3	67.6	66.7	65.3	65.6	64.8	67.6	71.5	75.6	69.9	70.0	+1.3	+1.5
17 ...	75.6	75.1	72.8	69.8	67.2	66.2	64.9	65.1	64.4	67.1	71.0	75.3	69.5	69.5	+0.9	+1.0
18 ...	75.1	74.4	72.0	69.2	66.2	65.5	64.0	64.5	64.0	66.3	70.5	74.6	68.9	68.9	+0.3	+0.4
19 ...	74.5	74.0	71.7	69.0	65.6	65.2	63.6	64.2	63.8	66.0	70.1	74.5	68.5	68.4	−0.1	−0.1
20 ...	74.1	73.8	71.3	68.8	65.0	64.9	63.3	63.8	63.5	65.4	69.8	74.3	68.2	68.0	−0.4	−0.5
21 ...	73.9	73.8	71.1	68.5	64.6	64.8	62.8	63.5	63.3	65.0	69.4	74.0	67.9	67.7	−0.7	−0.8
22 ...	73.6	73.7	70.8	68.3	64.1	64.7	62.6	63.2	63.1	64.6	69.1	73.9	67.6	67.5	−1.0	−1.0
23 ...	73.4	73.7	70.5	67.9	63.9	64.4	62.5	63.2	62.9	64.1	68.8	73.7	67.4	67.2	−1.2	−1.3

TABLE X.

Daily and Monthly Means of the Temperature of Evaporation during the year 1897.

Days.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Days.
1d		74.4°	70.5°	72.1°	69.5°	71.0°	67.5°	61.8°	62.5°	63.0°	62.7°	66.7°	72.8°	1d
2		74.1	73.1	73.6	70.7	66.8	67.5	62.8	63.3	63.8	63.9	71.4	73.1	2
3		73.5	71.6	75.0	69.7	65.8	67.5	61.0	63.2	63.8	65.8	72.5	72.9	3
4		73.9	71.9	77.0	68.5	65.3	66.6	61.5	62.5	63.0	65.7	71.3	74.0	4
5		76.0	72.7	76.0	68.8	64.3	64.1	63.1	63.7	57.8	66.0	68.6	74.2	5
6		76.4	72.9	72.0	69.1	63.4	62.5	66.5	64.7	59.1	66.2	67.7	75.6	6
7		75.6	73.8	73.1	66.6	62.1	64.6	63.2	65.4	60.9	63.7	68.7	75.3	7
8		74.3	75.2	74.4	67.2	62.8	65.7	62.3	66.2	61.7	64.1	69.0	73.9	8
9		74.1	75.5	72.2	67.5	64.6	66.6	62.1	64.8	62.4	61.2	69.0	73.7	9
10		74.3	75.7	72.3	67.9	65.0	69.8	63.4	63.4	64.0	63.2	69.9	73.0	10
11		74.9	74.3	70.7	68.3	65.0	68.9	64.6	63.7	65.1	63.1	70.5	73.3	11
12		76.5	74.2	70.1	68.3	63.1	68.0	63.7	65.9	65.6	65.9	70.5	73.2	12
13		77.1	76.3	70.2	69.3	64.3	66.6	60.1	66.8	66.4	64.9	68.8	72.6	13
14		77.1	77.1	70.4	68.4	64.5	64.6	61.3	64.8	66.3	64.1	68.3	72.1	14
15		76.2	76.4	69.9	66.4	65.1	60.3	64.4	63.6	65.5	62.8	70.4	73.3	15
16		77.5	75.5	70.1	66.2	65.4	60.7	65.4	65.7	67.7	66.3	71.4	74.8	16
17		77.0	75.1	70.8	65.1	67.9	61.7	64.9	64.8	65.9	66.7	71.1	74.4	17
18		76.5	73.8	73.4	65.8	70.7	63.5	64.8	64.2	66.1	63.6	70.0	74.6	18
19		76.2	73.9	71.9	66.9	71.3	65.3	63.9	62.9	64.2	63.8	69.2	73.6	19
20		74.5	76.3	71.2	66.7	65.9	63.9	62.8	64.7	65.3	63.5	68.4	73.6	20
21		74.2	77.4	68.8	67.9	62.2	63.4	63.1	63.6	65.4	66.4	69.0	74.6	21
22		75.0	76.3	68.7	69.4	64.8	65.4	63.2	64.9	65.5	70.8	69.6	74.8	22
23		75.4	74.5	71.1	71.7	64.5	62.2	64.6	65.3	63.1	70.7	70.6	74.3	23
24		74.9	71.4	72.5	72.1	68.3	62.7	65.1	63.4	63.4	71.1	70.2	75.7	24
25		75.2	71.0	71.8	71.5	66.6	62.5	66.0	62.0	64.9	69.1	72.6	77.1	25
26		73.6	73.8	70.1	72.2	66.4	67.9	66.0	63.8	64.4	68.8	71.5	77.7	26
27		70.7	74.9	71.3	71.9	66.6	70.0	65.2	64.7	61.9	68.3	71.2	77.5	27
28		70.7	74.0	71.5	72.4	66.3	70.7	66.2	65.0	62.6	67.6	70.4	78.8	28
29		70.8		70.2	71.9	63.6	67.1	66.7	64.1	61.7	68.1	70.6	77.7	29
30		69.9		71.8	72.4	63.2	65.0	64.2	64.3	62.3	68.1	71.2	77.0	30
31		69.6		70.6		65.2		63.9	62.2		65.2		75.8	31
Monthly	1897	74.5	74.3	71.8	69.0	65.5	65.4	63.8	64.2	63.8	65.9	70.0	74.7	Monthly
Means.	1891-97	73.8	73.8	72.7	71.3	67.7	64.4	63.4	63.4	64.2	66.6	68.6	72.3	Means.

The Mean Temperature of Evaporation for 1897 = 68.6°.

TABLE XI.

Hourly and Monthly Means of the Temperature of the Dew-Point during the year 1897.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.		Variation + above − below } Mean.	
													1897.	1891-97.	1897.	1891-97.
0h ...	71°.3	71°.2	68°.3	65°.1	60°.9	61°.7	59°.7	60°.2	59°.6	61°.3	65°.4	71°.8	64°.7	64°.8	+0°.1	−0°.1
1 ...	71.3	71.3	68.3	64.9	60.8	61.8	59.5	60.2	59.9	61.1	65.4	71.7	64.7	64.7	+0.1	−0.2
2 ...	71.1	71.0	68.0	65.1	60.4	61.7	59.7	60.3	59.6	60.8	65.4	71.5	64.5	64.6	−0.1	−0.3
3 ...	70.8	71.1	67.7	65.0	60.3	61.6	59.5	59.9	59.6	61.0	65.4	71.6	64.5	64.5	−0.1	−0.4
4 ...	70.8	70.8	67.5	64.9	60.4	61.3	59.3	59.5	59.4	60.8	65.1	71.3	64.3	64.4	−0.3	−0.5
5 ...	70.9	70.9	67.6	65.1	60.4	61.5	59.5	59.8	59.1	60.6	65.2	71.3	64.3	64.2	−0.3	−0.7
6 ...	71.3	70.6	67.6	64.6	60.4	61.3	59.3	59.9	58.9	61.9	66.0	71.9	64.5	64.4	−0.1	−0.5
7 ...	72.1	71.6	68.7	65.4	61.1	60.9	59.5	59.7	59.6	63.1	66.3	72.9	65.1	65.3	+0.5	+0.4
8 ...	71.6	72.0	68.8	65.9	62.3	62.4	60.8	61.2	59.5	62.2	65.3	71.8	65.3	65.7	+0.7	+0.8
9 ...	71.6	71.6	68.0	65.7	61.9	62.2	60.6	60.7	59.3	61.8	65.2	71.6	65.0	65.3	+0.4	+0.4
10 ...	70.9	71.4	67.2	64.5	61.0	61.7	59.8	60.1	58.3	61.5	64.8	71.1	64.4	65.1	−0.2	+0.2
11 ...	70.7	71.0	67.3	64.1	60.9	61.4	60.0	60.2	57.9	61.0	64.5	71.0	64.2	64.8	−0.4	−0.1
12 ...	70.4	71.1	67.4	64.1	60.9	60.9	59.4	59.6	57.6	61.2	64.1	70.9	64.0	64.9	−0.6	0.0
13 ...	70.9	71.2	67.6	64.2	61.0	61.6	59.0	59.6	58.2	61.3	63.8	70.6	64.1	64.7	−0.5	−0.2
14 ...	70.6	70.6	67.3	63.7	61.4	61.5	58.7	59.7	58.0	61.4	64.0	70.3	63.9	64.7	−0.7	−0.2
15 ...	71.1	70.8	67.1	64.1	61.6	61.4	59.7	59.9	57.9	61.1	64.3	70.2	64.1	64.7	−0.5	−0.2
16 ...	70.5	70.9	67.3	64.2	61.4	61.9	59.4	59.7	57.8	61.2	64.6	70.3	64.1	64.7	−0.5	−0.2
17 ...	70.9	71.3	67.7	64.5	61.9	61.9	59.8	60.3	58.5	61.5	64.7	70.4	64.4	64.9	−0.2	0.0
18 ...	70.9	71.3	67.8	65.0	61.9	61.8	59.9	60.5	59.4	61.6	65.2	70.6	64.6	65.1	0.0	+0.2
19 ...	71.3	71.5	68.5	65.6	61.8	61.9	60.0	60.8	59.9	62.1	65.7	71.4	65.0	65.3	+0.4	+0.4
20 ...	71.2	71.5	68.5	65.8	61.5	61.8	60.1	60.6	60.1	61.9	66.1	71.6	65.1	65.3	+0.5	+0.4
21 ...	71.3	71.6	68.5	65.6	61.2	61.8	59.7	60.3	59.9	62.0	66.0	71.6	65.0	65.2	+0.4	+0.3
22 ...	71.2	71.7	68.5	65.6	60.7	62.0	59.6	60.2	59.8	61.8	66.0	71.9	64.9	65.1	+0.3	+0.2
23 ...	71.3	71.7	68.2	65.4	60.9	61.8	59.7	60.2	59.8	61.5	65.9	71.7	64.8	64.9	+0.2	0.0

TABLE XII.

Daily and Monthly Means of the Temperature of the Dew-Point during the year 1897.

Days.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Days.
1d		71°.6	65°.2	68°.5	65°.2	68°.2	63°.8	56°.8	58°.7	58°.2	58°.4	61°.0	69°.2	1d
2		69.9	69.7	70.7	66.0	63.3	63.5	58.8	60.0	58.4	59.3	67.6	68.5	2
3		69.5	68.6	72.0	64.6	61.4	62.7	55.3	58.9	58.8	62.5	69.0	68.2	3
4		69.4	68.6	74.1	63.8	61.8	61.7	56.3	57.1	57.7	62.1	67.6	70.7	4
5		73.0	69.9	72.8	64.7	59.0	58.7	57.6	58.9	51.7	63.5	63.5	72.0	5
6		73.3	69.2	67.6	64.0	57.3	56.8	63.4	60.9	52.3	62.6	62.1	74.0	6
7		72.6	71.0	69.7	60.5	56.3	60.9	58.5	62.2	54.9	58.9	63.2	71.8	7
8		72.0	73.2	70.7	61.8	57.8	61.9	58.0	63.0	56.0	60.7	63.6	69.5	8
9		70.1	73.3	67.7	62.3	59.7	63.6	58.3	61.0	57.7	55.4	64.0	69.1	9
10		70.2	73.2	69.9	63.4	59.8	67.9	60.3	58.4	59.6	58.0	65.0	68.8	10
11		71.1	71.1	68.0	63.3	59.6	65.5	62.0	59.2	60.9	57.2	66.5	69.9	11
12		72.7	70.5	65.9	63.8	57.5	63.9	59.2	63.7	61.4	62.1	66.1	68.9	12
13		74.6	73.2	65.6	65.6	61.9	62.0	54.7	63.6	63.4	59.7	63.4	68.1	13
14		75.6	74.7	65.5	64.3	60.4	60.7	56.6	60.2	61.7	58.9	62.4	67.4	14
15		73.7	73.3	65.2	61.7	60.8	54.9	61.1	59.6	61.5	57.0	65.9	69.9	15
16		74.9	72.6	64.9	61.6	60.8	56.9	61.7	62.0	64.2	63.6	66.2	71.3	16
17		73.6	72.2	66.9	60.1	65.3	58.3	60.6	60.7	61.9	62.5	65.8	70.2	17
18		73.0	70.0	69.6	60.6	67.6	60.1	61.5	60.5	62.5	58.5	64.8	70.6	18
19		72.3	71.6	67.3	61.4	68.4	62.9	59.9	57.6	58.8	59.3	63.0	68.9	19
20		71.1	74.4	66.9	61.6	61.5	59.3	56.9	61.7	60.4	58.4	63.2	69.6	20
21		70.0	75.0	64.1	63.7	57.1	59.6	57.7	59.2	60.9	61.5	63.9	72.2	21
22		70.5	73.9	63.4	66.0	60.5	62.8	57.0	60.2	60.8	66.7	65.4	72.7	22
23		72.3	71.0	66.1	69.2	60.1	56.6	59.6	61.8	57.9	66.6	65.6	71.8	23
24		72.3	67.4	69.1	69.4	64.1	57.2	61.5	58.2	58.2	67.4	65.0	73.7	24
25		72.5	66.4	67.6	67.9	61.5	58.5	62.8	56.2	60.6	64.7	67.9	75.1	25
26		71.2	70.4	65.7	69.4	61.7	66.0	63.1	58.8	59.9	64.6	68.1	74.9	26
27		66.3	72.9	68.1	69.8	61.3	68.3	63.2	60.6	55.3	63.6	66.7	74.7	27
28		65.9	71.5	67.8	70.0	61.7	68.6	63.1	61.4	59.9	62.7	65.1	75.9	28
29		67.1		66.2	69.6	57.5	63.2	63.1	59.9	56.5	63.0	65.3	74.3	29
30		64.9		68.7	70.0	57.3	61.3	59.7	60.6	58.1	63.0	65.8	74.0	30
31		64.9		66.5		60.5		59.2	56.2		58.9		72.3	31
Monthly	1897	71.0	71.2	67.8	64.8	61.0	61.6	59.6	60.0	59.0	61.3	65.1	71.2	Monthly
Means.	1891-97	70.4	70.5	69.7	68.4	64.4	60.9	59.8	59.5	60.1	62.2	63.9	68.2	Means.

The Mean Temperature of the Dew-Point for 1897 = 64°.5.

TABLE XIII.

Hourly and Monthly Means of the Vapour-Tension during the year 1897.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means. 1897.	Yearly Means. 1891-97.	Variation + above − below } Mean. 1897.	Variation + above − below } Mean. 1891-97.
	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.
0h ...	0.766	0.764	0.692	0.620	0.535	0.550	0.512	0.522	0.511	0.543	0.626	0.779	0.618	0.621	+.003	−.001
1 ...	.766	.766	.692	.615	.533	.552	.509	.522	.516	.539	.626	.777	.618	.620	+.003	−.002
2 ...	.761	.759	.684	.620	.526	.550	.512	.524	.511	.533	.626	.772	.615	.616	.000	−.006
3 ...	.754	.761	.678	.617	.524	.548	.509	.516	.511	.537	.626	.774	.613	.613	−.002	−.009
4 ...	.754	.754	.673	.615	.526	.543	.505	.509	.507	.533	.620	.766	.609	.610	−.006	−.012
5 ...	.756	.756	.675	.620	.526	.546	.509	.514	.501	.529	.622	.766	.610	.607	−.005	−.015
6 ...	.766	.749	.675	.600	.526	.543	.505	.516	.498	.554	.639	.782	.613	.612	−.002	−.010
7 ...	.788	.774	.701	.626	.539	.535	.509	.512	.511	.578	.646	.810	.627	.630	+.012	+.008
8 ...	.774	.785	.704	.637	.562	.564	.533	.541	.509	.560	.624	.779	.631	.640	+.016	+.018
9 ...	.774	.774	.684	.633	.554	.560	.529	.531	.505	.552	.622	.774	.624	.631	+.009	+.009
10 ...	.756	.769	.666	.607	.537	.550	.514	.520	.487	.546	.613	.761	.610	.626	−.005	+.004
11 ...	.751	.759	.668	.598	.535	.545	.518	.522	.480	.537	.607	.759	.607	.621	−.008	−.001
12 ...	.744	.761	.671	.598	.535	.535	.507	.511	.475	.541	.598	.756	.603	.622	−.012	.000
13 ...	.756	.764	.675	.601	.537	.548	.500	.511	.485	.543	.592	.749	.605	.618	−.010	−.004
14 ...	.749	.749	.668	.590	.545	.546	.494	.512	.482	.545	.596	.741	.601	.619	−.014	−.003
15 ...	.761	.754	.664	.598	.548	.545	.512	.516	.480	.539	.603	.738	.605	.617	−.010	−.005
16 ...	.744	.756	.668	.601	.545	.554	.507	.512	.479	.541	.609	.741	.605	.618	−.010	−.004
17 ...	.756	.766	.678	.607	.554	.554	.514	.522	.491	.546	.611	.744	.612	.621	−.003	−.001
18 ...	.756	.766	.680	.617	.554	.552	.516	.528	.507	.546	.622	.749	.616	.626	+.001	+.004
19 ...	.764	.772	.697	.630	.552	.554	.518	.533	.516	.558	.633	.769	.625	.630	+.010	+.008
20 ...	.764	.772	.697	.635	.546	.552	.520	.529	.520	.554	.641	.774	.625	.630	+.010	+.008
21 ...	.766	.774	.697	.630	.541	.552	.512	.524	.516	.556	.639	.774	.623	.627	+.008	+.005
22 ...	.764	.777	.697	.630	.531	.556	.511	.522	.514	.552	.639	.782	.623	.625	+.008	+.003
23 ...	.766	.777	.689	.626	.535	.552	.512	.522	.514	.546	.637	.777	.621	.622	+.006	.000

TABLE XIV.

Daily and Monthly Means of the Vapour-Tension during the year 1897.

Days.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Days.
		Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	
1d		0.774	0.622	0.697	0.622	0.689	0.592	0.462	0.494	0.485	0.489	0.537	0.713	1d
2		.731	.726	.751	.639	.582	.586	.496	.518	.489	.505	.675	.697	2
3		.721	.699	.785	.609	.545	.570	.437	.498	.496	.566	.708	.689	3
4		.718	.699	.843	.592	.552	.550	.454	.467	.477	.558	.675	.751	4
5		.812	.731	.807	.611	.500	.494	.475	.498	.384	.586	.586	.785	5
6		.820	.713	.675	.596	.470	.462	.584	.535	.393	.568	.558	.840	6
7		.801	.759	.726	.528	.454	.535	.491	.560	.431	.498	.580	.779	7
8		.785	.818	.751	.552	.479	.554	.482	.576	.449	.531	.588	.721	8
9		.736	.820	.678	.562	.512	.588	.487	.537	.477	.439	.596	.711	9
10		.738	.818	.731	.584	.514	.682	.524	.489	.511	.482	.617	.704	10
11		.761	.761	.684	.582	.511	.628	.556	.503	.535	.469	.650	.731	11
12		.804	.746	.637	.592	.473	.594	.503	.590	.545	.558	.641	.706	12
13		.857	.818	.630	.630	.535	.556	.428	.588	.584	.512	.584	.687	13
14		.885	.860	.628	.603	.526	.531	.459	.522	.550	.498	.564	.671	14
15		.832	.820	.622	.550	.533	.431	.539	.511	.546	.465	.637	.731	15
16		.865	.801	.615	.548	.533	.464	.550	.556	.601	.588	.644	.766	16
17		.829	.790	.659	.520	.624	.487	.529	.531	.554	.566	.635	.738	17
18		.812	.733	.723	.529	.675	.520	.546	.528	.566	.491	.613	.749	18
19		.793	.774	.668	.545	.694	.574	.516	.475	.496	.505	.576	.706	19
20		.761	.851	.659	.548	.546	.505	.464	.550	.526	.4 9	.580	.723	20
21		.733	.868	.598	.590	.467	.511	.477	.503	.535	.546	.594	.790	21
22		.746	.837	.584	.639	.528	.572	.465	.522	.533	.655	.626	.804	22
23		.793	.759	.641	.713	.520	.459	.511	.552	.480	.652	.630	.779	23
24		.793	.671	.711	.718	.598	.469	.546	.485	.485	.671	.617	.832	24
25		.799	.648	.675	.682	.546	.491	.572	.453	.529	.611	.682	.871	25
26		.764	.744	.633	.718	.550	.639	.578	.496	.516	.609	.687	.865	26
27		.646	.810	.687	.728	.543	.692	.580	.529	.437	.588	.655	.860	27
28		.637	.772	.680	.733	.550	.699	.578	.545	.516	.570	.620	.894	28
29		.664		.644	.723	.473	.580	.578	.516	.457	.576	.624	.848	29
30		.615		.701	.733	.470	.543	.512	.529	.483	.576	.635	.840	30
31		.615		.650		.528		.503	.453		.498		.793	31
Monthly	1897	.763	.767	.683	.617	.539	.552	.512	.520	.502	.546	.620	.767	Monthly
Means.	1891-97	.745	.748	.728	.698	.609	.536	.517	.512	.520	.562	.596	.693	Means.

The Mean Vapour-Tension for 1897 = .616 inch.

TABLE XV.

Hourly and Monthly Means of the Relative Humidity during the year 1897.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.		Variation + above − below } Mean.	
													1897.	1891-97.	1897.	1891-97.
	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.
0^h ...	85.0	84.5	84.5	82.0	79.0	82.0	81.5	81.0	79.5	83.0	79.7	86.0	82.3	84.3	+ 9.4	+ 8.9
1 ...	86.0	85.5	85.5	81.5	80.0	83.5	81.0	82.0	82.0	83.5	80.5	87.0	83.2	85.0	+10.3	+ 9.6
2 ...	87.0	85.5	85.5	83.0	80.0	83.0	82.0	83.0	82.0	83.2	82.0	87.5	83.6	85.5	+10.7	+10.1
3 ...	87.5	86.5	85.0	82.5	81.0	83.0	82.5	83.0	82.0	85.0	83.0	88.5	84.1	85.9	+11.2	+10.5
4 ...	88.0	85.5	85.0	84.1	81.0	82.5	82.0	82.5	81.5	85.5	83.0	88.5	84.1	86.1	+11.2	+10.7
5 ...	88.5	86.5	85.5	84.0	81.0	83.5	83.0	83.0	82.0	87.0	84.5	89.0	84.8	86.3	+11.9	+10.9
6 ...	90.0	86.0	86.5	83.5	81.5	83.5	82.8	84.0	81.1	86.5	82.5	88.5	84.7	86.4	+11.8	+11.0
7 ...	82.0	83.5	83.5	81.5	80.5	80.5	82.5	81.5	76.0	74.8	71.4	82.0	80.0	82.4	+ 7.1	+ 7.0
8 ...	74.3	79.0	71.8	71.6	70.1	76.5	76.0	74.3	66.2	65.6	61.6	74.2	71.8	74.7	− 1.1	− 0.7
9 ...	68.8	74.7	64.9	66.6	63.3	68.8	67.4	66.2	62.2	61.1	58.6	70.0	66.0	68.3	− 6.9	− 7.1
10 ...	63.9	71.6	59.2	60.4	58.9	64.8	62.5	63.5	55.9	56.6	54.9	66.0	61.5	64.4	−11.4	−11.0
11 ...	61.9	67.2	56.7	56.3	55.4	61.2	60.4	60.0	53.5	53.9	52.2	63.8	58.5	62.1	−14.4	−13.3
12 ...	61.3	67.3	57.6	55.4	54.8	59.3	56.9	57.1	51.7	53.9	50.1	61.9	57.3	61.1	−15.6	−14.3
13 ...	63.4	66.4	58.0	54.8	55.1	61.1	55.6	56.6	52.6	55.1	49.2	60.4	57.4	60.7	−15.5	−14.7
14 ...	62.9	65.9	57.6	54.5	56.3	61.5	55.9	57.7	53.2	54.8	50.7	61.0	57.7	61.2	−15.2	−14.2
15 ...	64.4	67.2	57.9	56.9	58.2	62.8	59.8	61.0	54.1	55.7	53.1	61.3	59.4	62.5	−13.5	−12.9
16 ...	64.9	70.0	62.0	59.9	60.2	68.0	62.3	62.6	56.2	59.3	55.6	64.6	62.1	64.8	−10.8	−10.6
17 ...	67.6	72.7	65.3	65.0	64.8	70.4	66.2	67.0	61.4	62.5	58.1	66.8	65.6	68.3	− 7.3	− 7.1
18 ...	71.6	77.0	71.0	71.4	70.4	74.3	71.8	72.7	69.0	67.3	65.0	71.0	71.0	73.6	− 1.9	− 1.8
19 ...	75.9	81.0	77.0	76.6	74.0	77.0	75.5	76.5	73.5	72.6	70.2	77.1	75.6	78.1	+ 2.7	+ 2.7
20 ...	78.3	83.0	79.7	79.8	75.5	78.5	78.0	77.5	76.0	75.5	74.4	80.1	78.0	80.3	+ 5.1	+ 4.9
21 ...	81.1	83.5	81.0	80.3	77.0	79.5	78.5	78.0	76.5	79.0	75.6	81.5	79.3	81.7	+ 6.4	+ 6.3
22 ...	82.0	84.5	83.0	80.5	77.0	81.0	79.5	79.0	77.5	80.5	78.3	84.5	80.6	82.7	+ 7.7	+ 7.3
23 ...	84.0	85.0	83.5	81.5	78.5	82.0	80.5	79.5	78.5	81.5	80.2	85.0	81.6	83.5	+ 8.7	+ 8.1

TABLE XVI.

Daily and Monthly Means of the Relative Humidity during the year 1897.

Days.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Days.
		P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	
1d		79.0	65.0	74.6	70.0	80.0	74.9	66.4	74.0	67.2	70.5	62.8	74.6	1d
2		70.2	75.4	78.8	68.2	75.0	72.9	72.5	77.0	64.6	68.9	73.0	68.2	2
3		71.4	79.2	78.4	66.2	69.8	68.0	62.8	70.5	67.0	76.6	75.0	67.8	3
4		68.2	75.8	78.8	68.0	75.5	67.2	65.2	64.4	64.4	74.9	74.2	75.4	4
5		78.4	79.7	77.2	71.6	65.0	64.6	64.6	67.8	61.0	82.0	65.2	83.0	5
6		78.4	73.8	69.8	66.2	61.1	62.4	77.5	73.7	57.6	74.0	63.0	87.5	6
7		78.0	79.8	75.9	60.1	62.4	74.4	68.2	77.5	61.2	67.9	64.6	74.9	7
8		83.0	85.0	73.8	64.0	66.4	74.1	70.5	77.5	62.8	76.5	64.6	69.4	8
9		71.4	82.5	69.0	65.6	67.4	78.5	74.0	74.2	68.0	62.0	67.0	67.8	9
10		71.0	82.3	82.5	69.6	65.4	86.0	78.5	66.4	70.2	65.4	67.4	70.6	10
11		72.6	76.5	80.5	66.0	64.6	76.9	81.5	69.5	71.5	61.8	73.0	75.8	11
12		73.2	73.6	70.9	69.6	63.8	71.6	69.5	84.0	71.0	73.9	69.8	69.8	12
13		81.5	77.9	68.6	73.9	77.0	68.8	64.9	77.0	78.5	65.4	65.0	68.6	13
14		89.0	82.5	67.0	71.6	71.9	73.2	68.5	69.0	68.9	65.8	62.1	67.4	14
15		82.0	77.6	68.2	68.2	70.7	64.8	77.5	73.0	72.7	63.0	69.4	75.4	15
16		81.3	79.7	65.4	68.8	68.6	75.0	74.6	74.5	75.9	80.5	64.6	75.4	16
17		76.0	78.9	73.0	66.6	81.0	76.5	70.6	71.8	71.8	71.3	65.0	70.2	17
18		74.8	73.0	72.6	65.0	77.5	76.0	77.0	75.0	74.5	66.2	65.0	71.0	18
19		72.4	82.7	69.1	63.6	79.3	83.0	72.5	64.8	64.6	69.6	59.8	67.4	19
20		75.5	86.5	70.2	66.0	69.4	68.9	62.2	79.0	66.6	66.2	64.8	71.4	20
21		70.2	82.5	67.6	71.2	65.5	74.0	65.0	70.2	69.4	67.4	66.2	82.0	21
22		69.2	83.0	65.2	76.0	71.0	81.5	60.9	68.2	68.2	71.8	70.8	84.0	22
23		78.4	75.1	66.5	82.1	70.2	63.2	66.6	75.5	64.9	72.2	66.2	81.0	23
24		80.7	72.2	75.4	79.5	71.2	63.6	75.0	65.8	65.8	74.2	65.0	84.5	24
25		80.2	68.6	71.0	74.6	66.0	72.5	77.0	62.4	70.6	69.2	67.4	85.0	25
26		82.0	75.4	70.2	79.2	68.2	85.5	79.0	67.0	69.4	71.2	75.4	79.9	26
27		70.2	85.0	77.7	84.5	65.2	87.5	85.0	71.8	59.1	68.0	69.0	79.7	27
28		67.4	81.0	73.8	82.0	68.5	85.0	78.0	75.0	68.0	67.2	64.6	78.4	28
29		74.2		71.8	83.1	61.3	73.7	74.5	71.1	65.2	65.6	64.8	75.6	29
30		66.3		77.4	82.0	62.2	74.0	69.4	74.1	71.5	65.2	63.5	78.0	30
31		68.6		72.2		68.6		68.6	61.8		60.4		75.2	31
Monthly	1897	75.4	78.2	72.7	71.4	69.3	73.9	71.5	71.7	67.7	69.5	66.9	75.3	Monthly
Means.	1891-97	75.8	76.8	78.4	79.0	77.1	75.6	75.9	74.1	71.5	70.4	68.3	72.0	Means.

The Mean Relative Humidity for 1897 = 72.0.

TABLE XVII.

Temperature of the Air in a lofty room during the year 1897.

Months.	Monthly Means.	Mean at 6 hours.	Mean at 9 hours.	Mean at 13 hours.	Mean at 15 hours.	Highest Readings.	Lowest Readings.	Range in Month.	Mean of Highest Daily Readings.	Mean of Lowest Daily Readings.	Approximate Means.	Mean Diurnal Range.	Greatest Diurnal Range.	Least Diurnal Range.
January	78.9°	75.2°	81.3°	82.9°	82.6°	88.0°	68.8°	19.2°	84.9°	74.6°	79.7°	10.3°	14.6°	4.9°
February	78.8	75.7	79.7	82.3	82.0	86.3	71.0	15.3	83.9	75.0	79.4	8.9	13.5	5.7
March	77.3	72.9	79.8	82.1	81.7	86.0	66.1	19.9	83.9	72.3	78.1	11.6	17.9	7.9
April	74.9	70.5	76.9	80.2	79.4	84.5	64.2	20.3	81.7	69.9	75.8	11.8	18.4	6.6
May	71.8	67.4	74.0	76.8	76.3	82.5	57.4	25.1	78.5	66.7	72.6	11.8	21.3	6.9
June	70.9	67.6	72.3	75.0	74.3	80.9	59.8	21.1	76.7	66.7	71.7	10.0	15.4	5.6
July	69.7	65.8	71.1	74.5	73.7	78.5	59.8	18.7	75.9	64.9	70.4	11.0	15.4	7.5
August	69.7	65.9	71.4	74.7	73.5	78.0	59.0	19.0	76.4	65.1	70.7	11.3	17.5	7.5
September	70.0	65.5	72.0	75.0	74.4	79.2	61.0	18.2	76.9	64.8	70.8	12.1	16.7	9.4
October	71.3	66.6	74.3	76.4	76.1	82.8	59.1	23.7	78.5	65.5	72.0	13.0	18.9	7.5
November	76.1	71.6	78.6	81.6	80.7	86.6	64.1	22.5	83.3	70.1	76.7	13.2	16.9	8.4
December	79.1	75.8	80.3	82.8	82.4	86.6	70.1	16.5	84.4	74.7	79.5	9.7	16.5	2.5
Yearly Means ...	74.0	70.0	76.0	78.7	78.1	83.3	63.4	20.0	80.4	69.2	74.8	11.2	16.9	6.7

TABLE XVIII.

Temperature of Evaporation during the year 1897.

Months.	Monthly Means.	Mean at 6 hours.	Mean at 9 hours.	Mean at 13 hours.	Mean at 15 hours.	Highest Readings.	Lowest Readings.	Range in Month.	Mean of Highest Daily Readings.	Mean of Lowest Daily Readings.	Approximate Means.	Mean Diurnal Range.	Greatest Diurnal Range.	Least Diurnal Range.
January	74.3°	72.9°	75.1°	75.6°	75.7°	79.8°	66.5°	13.3°	77.4°	72.1°	74.7°	5.3°	9.7°	2.8°
February	74.0	72.9	74.7	74.4	75.2	79.5	67.7	11.8	77.2	72.1	74.6	5.1	7.7	3.3
March	71.7	70.2	73.2	73.6	73.3	79.0	64.0	15.0	75.3	69.5	72.4	5.8	11.4	3.0
April	69.0	67.4	70.7	71.0	70.7	75.3	61.6	13.7	72.4	66.6	69.5	5.8	9.2	3.2
May	66.0	63.8	67.6	68.0	68.2	74.6	53.0	21.6	69.6	62.9	66.2	6.7	16.4	4.1
June	65.6	64.2	66.8	67.4	67.1	72.8	56.4	16.4	68.9	63.1	66.0	5.8	10.4	3.3
July	63.9	62.2	65.4	65.8	65.7	70.6	54.5	16.1	67.6	61.2	64.4	6.4	11.7	3.6
August	64.2	62.6	65.5	66.3	65.9	70.3	57.5	12.8	67.9	61.6	64.7	6.3	10.2	3.8
September	63.7	62.1	64.9	65.5	65.3	70.8	55.0	15.8	67.4	61.2	64.3	6.2	8.5	4.4
October	65.9	64.2	67.3	68.0	67.7	73.5	57.0	16.5	69.5	62.7	66.1	6.8	12.6	2.6
November	70.0	68.6	71.0	71.4	71.4	75.6	60.0	15.6	73.2	67.2	70.2	6.0	9.7	3.3
December	74.3	73.6	74.9	75.4	75.1	79.6	68.5	11.1	76.9	72.3	74.6	4.6	7.5	2.9
Yearly Means ...	68.5	67.1	69.8	70.2	70.1	75.1	60.1	15.0	71.9	66.0	69.0	5.9	10.4	3.4

TABLE XIX.

Temperature of the Dew-Point during the year 1897. (Deduced).

Months.	Monthly Means.	Mean at 6 hours.	Mean at 9 hours.	Mean at 13 hours.	Mean at 15 hours.	Highest in Month.	Lowest in Month.	Range in Month.	Greatest Diurnal Range.	Least Diurnal Range.
	°	°	°	°	°	°	°	°	°	°
January...	71.1	71.3	70.9	70.7	71.0	76.6	62.9	13.7	6.9	0.4
February	70.7	70.8	71.4	70.9	70.7	76.4	62.0	14.4	6.2	0.2
March	67.9	68.2	68.6	68.0	67.7	75.0	61.2	13.8	6.1	0.5
April	64.9	65.1	66.3	64.8	64.7	72.0	59.4	12.6	6.0	1.0
May	61.6	60.9	62.9	61.8	62.4	71.9	48.9	23.0	13.6	0.5
June	61.6	61.5	62.7	61.9	61.8	69.9	52.7	17.2	6.4	1.0
July	59.6	59.3	61.0	59.4	59.9	67.8	49.6	18.2	8.6	1.1
August	60.1	60.0	61.1	60.2	60.3	65.5	54.6	10.9	7.2	0.7
September	58.9	59.3	59.5	58.7	58.6	66.3	49.5	16.8	5.3	1.1
October...	62.0	62.2	62.3	62.1	61.8	69.8	53.8	16.0	6.7	0.7
November	65.6	66.3	65.8	64.5	65.0	71.7	57.5	14.2	9.1	0.8
December	71.1	72.1	71.2	70.4	70.2	76.1	65.0	11.1	6.9	0.8
Yearly Means	64.6	64.7	65.3	64.4	64.5	71.6	56.4	15.2	7.4	0.7

TABLE XX.

Elastic Force of Vapour during the year 1897. (Deduced).

Months.	Monthly Means.	Mean at 6 hours.	Mean at 9 hours.	Mean at 13 hours.	Mean at 15 hours.	Highest in Month.	Lowest in Month.	Range in Month.	Greatest Diurnal Range.	Least Diurnal Range.
	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.
January...	.767	.770	.760	.754	.763	.916	.574	.342	.175	.008
February	.756	.758	.772	.760	.754	.909	.556	.353	.171	.006
March	.686	.692	.703	.688	.681	.867	.541	.326	.154	.013
April	.619	.624	.651	.618	.615	.786	.507	.279	.134	.021
May	.554	.540	.578	.557	.568	.782	.346	.436	.220	.010
June	.555	.552	.575	.558	.558	.731	.398	.333	.117	.022
July	.515	.509	.540	.511	.521	.680	.355	.325	.155	.020
August	.523	.520	.541	.524	.526	.630	.428	.202	.124	.013
September	.502	.508	.514	.498	.495	.648	.355	.293	.102	.021
October...	.560	.565	.566	.562	.555	.731	.415	.316	.134	.016
November	.634	.648	.640	.609	.621	.778	.474	.304	.181	.018
December	.766	.789	.768	.748	.743	.903	.617	.286	.170	.021
Yearly Means	.620	.623	.634	.616	.617	.780	.464	.316	.153	.016

TABLE XXI.

Relative Humidity during the year 1897. (Deduced).

Months.	Monthly Means.	Mean at 6 hours.	Mean at 9 hours.	Mean at 13 hours.	Mean at 15 hours.	Highest in Month.	Lowest in Month.	Range in Month.	Greatest Diurnal Range.	Least Diurnal Range.
	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.	P. C.
January...	78.1	87.7	71.1	67.2	68.4	94.5	52.0	42.5	37.0	4.1
February	76.9	84.9	76.1	68.9	69.0	95.0	49.2	45.8	32.4	5.8
March	74.0	85.2	68.6	62.7	62.8	93.3	50.6	42.7	36.4	16.5
April	72.1	83.2	70.6	60.1	61.0	95.1	48.5	46.6	38.9	9.8
May	71.2	80.0	68.4	60.7	62.5	94.0	37.8	56.2	52.6	7.8
June	73.4	81.2	72.2	64.0	65.6	95.2	50.5	44.7	34.4	9.3
July	71.3	80.2	70.7	59.8	62.5	95.8	46.1	49.7	36.0	10.3
August	72.6	81.5	70.4	60.8	63.8	91.2	47.5	43.7	39.0	8.4
September	69.3	80.7	65.4	57.3	57.8	90.7	46.9	43.8	35.9	5.0
October...	73.9	86.3	66.8	61.6	61.5	94.7	46.0	48.7	38.0	13.1
November	71.5	83.5	65.1	57.3	59.5	91.9	46.0	45.9	38.5	14.1
December	77.6	88.1	74.4	66.7	67.2	93.0	53.1	39.9	36.5	4.0
Yearly Means	73.5	83.5	70.0	62.3	63.5	93.7	47.8	45.8	38.0	9.0

TABLE XXII.

Mean Monthly Amount of Cloud during the year 1897.

Months.	Upper.					Lower.				
	Monthly Means.	Mean at 6 hours.	Mean at 9 hours.	Mean at 13 hours.	Mean at 15 hours.	Monthly Means.	Mean at 6 hours.	Mean at 9 hours.	Mean at 13 hours.	Mean at 15 hours.
January...	1.6	2.1	1.3	1.5	1.6	5.4	3.7	5.3	6.3	6.4
February	1.3	1.8	1.1	1.0	1.5	5.9	4.5	6.7	6.5	5.9
March	1.5	2.0	1.2	1.4	1.3	4.5	2.9	3.9	5.8	5.3
April	0.7	0.5	0.6	0.7	1.1	4.6	3.4	5.1	5.1	4.8
May	1.0	1.1	1.2	1.0	0.8	3.4	2.1	3.3	4.1	4.1
June	0.8	0.5	0.6	1.2	1.0	5.0	4.8	4.0	5.9	5.6
July	0.5	0.6	0.9	0.1	0.3	4.7	5.3	3.9	5.3	4.4
August	0.3	0.3	0.6	0.3	0.2	5.5	4.8	5.1	6.0	6.1
September	0.0	0.0	0.0	0.0	0.0	5.8	5.4	5.8	6.0	6.0
October...	0.8	1.3	0.7	0.7	0.6	5.6	4.7	5.5	6.2	6.1
November	0.3	0.3	0.1	0.2	0.5	5.6	4.6	6.2	6.0	5.8
December	0.6	1.1	0.1	0.6	0.6	6.0	4.7	7.1	6.2	6.2
Yearly Means	0.8	1.0	0.7	0.7	0.8	5.2	4.2	5.2	5.8	5.6

TABLE XXIII.

Mean daily Amount of Cloud during the year 1897.

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Days.
1d	9.1	3.9	8.1	3.0	7.3	5.0	2.2	3.5	7.5	7.7	6.3	6.9	... ... 1d
2	5.4	7.6	9.1	5.1	4.3	8.3	3.7	3.0	3.1	7.5	6.6	6.2	 2
3	5.5	9.9	6.6	3.9	2.0	7.5	6.2	3.6	4.9	7.5	7.6	6.2	 3
4	6.8	9.8	5.3	4.7	6.5	7.8	6.1	3.4	5.0	7.7	8.1	7.7	 4
5	6.7	9.9	4.1	7.5	2.9	6.4	5.6	8.1	9.2	9.4	4.4	10.0	 5
6	7.5	7.9	8.6	3.0	0.9	3.1	6.7	8.6	9.4	8.2	1.7	9.5	 6
7	8.8	9.2	8.6	4.4	4.9	6.4	3.4	7.2	7.7	5.5	4.7	5.6	 7
8	7.0	7.8	6.1	5.4	6.9	4.0	7.0	6.9	6.5	8.5	4.4	4.4	 8
9	6.2	7.1	4.6	4.2	2.9	5.2	7.2	6.1	8.1	3.4	4.6	2.9	 9
10	6.5	6.6	5.9	3.6	5.1	9.9	6.3	3.4	4.1	5.1	7.6	5.1	 10
11	6.3	4.7	8.2	4.6	1.6	4.9	7.7	5.0	3.6	4.0	7.9	5.2	 11
12	6.0	3.1	3.2	5.0	3.2	6.7	6.2	7.0	4.9	7.6	5.0	4.0	 12
13	8.2	5.1	5.6	5.6	9.0	4.7	2.3	8.0	7.4	2.0	6.4	4.3	 13
14	9.9	8.5	2.9	4.9	1.7	5.1	5.1	3.6	3.4	6.5	4.1	5.3	 14
15	8.9	6.6	4.6	4.6	2.2	7.4	3.5	5.5	9.6	5.3	7.2	8.6	 15
16	5.8	7.9	2.0	6.1	1.1	4.7	4.2	4.9	5.6	8.5	7.2	7.3	 16
17	7.6	7.0	4.0	3.6	7.7	8.5	5.5	4.4	6.7	6.6	6.7	3.7	 17
18	4.4	8.2	5.1	3.7	3.1	5.5	4.0	8.0	4.9	6.6	9.0	4.1	 18
19	7.5	9.6	6.5	1.2	7.4	5.7	5.0	5.1	1.6	5.7	3.8	6.8	 19
20	9.4	7.6	7.5	3.7	0.3	5.4	5.5	5.2	4.5	4.9	5.2	9.3	 20
21	9.6	8.0	9.6	3.2	0.7	5.2	6.1	4.7	4.6	7.4	8.9	9.7	 21
22	7.6	8.7	6.4	8.9	3.1	5.6	2.2	8.2	4.6	8.7	6.3	9.6	 22
23	7.6	5.1	5.3	7.3	8.8	3.7	5.6	7.6	3.4	8.1	6.7	9.9	 23
24	8.5	5.0	6.2	8.9	5.3	3.0	6.8	2.5	2.6	7.9	5.3	9.9	 24
25	7.6	1.4	5.7	2.9	4.8	3.7	5.7	5.5	8.5	7.1	5.1	8.4	 25
26	10.0	7.5	7.3	7.9	9.9	8.1	7.0	5.5	6.5	5.1	5.2	6.6	 26
27	3.5	8.9	8.4	9.4	8.1	9.7	7.0	7.6	2.0	5.6	4.6	6.6	 27
28	4.5	9.6	6.5	5.7	3.7	8.9	3.8	7.6	8.1	3.5	5.6	8.3	 28
29	6.3		1.6	8.5	5.9	1.1	5.1	8.0	7.9	4.9	5.6	5.7	 29
30	3.1		7.0	8.6	2.7	4.7	2.9	7.4	7.6	8.1	5.1	5.2	 30
31	6.6		4.3		3.6		4.7	4.9		5.0		3.7	 31
Monthly Means.	7.0	7.2	6.0	5.3	4.4	5.9	5.2	5.8	5.8	6.4	5.9	6.7	Monthly Means.

TABLE XXIV.

Readings of Self-registering Maximum and Minimum Thermometers exposed in a Stevenson's Screen on the lawn, and of a Terrestrial Radiation Thermometer during the year 1897.

Months.	In the Screen.																					On the Grass.				
	Maximum Temperature.					Minimum Temperature.					Mean Temperature.					Range of Temperature.						Minimum Temperature.				
	Means.	Highest.	Date.	Lowest.	Date.	Means.	Highest.	Date.	Lowest.	Date.	Means.	Highest.	Date.	Lowest.	Date.	Mean daily Range.	Greatest.	Date.	Least.	Date.	Range during Month.	Means.	Highest.	Date.	Lowest.	Date.
January	89.0°	92.2°	18	83.5°	26	72.1°	77.6°	14	65.6°	31	80.5°	82.8°	22	76.5°	31	16.9°	21.7°	27	7.8°	14	26.6°	70.2°	76.2°	14	62.2°	31
February	87.6	90.5	14	82.8	4 & 28	73.3	77.0	15	66.6	24	80.4	83.5	15	77.2	4	14.3	23.3	24	8.4	28	23.9	71.4	75.8	22	64.0	24
March	89.0	91.3	28	84.4	21	69.5	75.7	4	62.7	17	79.2	83.1	8	75.4	11	19.5	26.6	17	12.3	21	28.6	67.1	74.4	4	59.6	17
April	87.2	90.3	1	82.7	27	66.9	72.3	26	58.9	17	77.0	79.9	26	72.7	17	20.3	28.6	1	10.9	27	31.4	64.0	71.0	27	56.0	17
May	83.7	89.2	20	79.4	5	62.8	69.7	18	53.0	21	73.2	78.2	18	68.8	7	20.9	32.4	21	11.8	28	36.2	59.3	68.0	27	49.1	21
June	81.0	87.3	1	74.4	16	63.8	69.5	28	54.7	25	72.4	77.0	3	67.0	25	17.2	25.6	1	12.2	26	32.6	60.7	67.6	28	50.4	25
July	80.3	83.4	23 & 25	76.2	9	61.6	66.4	22	55.9	13	70.9	73.7	29	67.2	10	18.7	23.9	25	13.1	9	27.5	58.1	64.2	6 & 22	50.4	13
August	81.0	83.1	21	76.2	12	62.4	66.2	13	55.6	3	71.7	73.4	13	68.5	3	18.6	26.3	2	12.2	12	27.5	59.5	64.1	13	52.1	1 & 3
September ...	82.1	84.9	21 & 22	75.0	5	62.1	67.1	16	57.7	24	72.1	75.2	16	67.5	5	20.0	26.7	24	15.0	5	27.2	58.9	65.5	16	53.6	1
October	84.2	88.4	27	78.2	5	61.9	69.8	22	54.7	20	73.0	78.2	24	68.9	8	22.3	29.1	15	14.4	4	33.7	59.0	67.1	22	50.9	20
November ...	89.3	92.6	30	87.6	1, 4 & 18	67.3	73.2	17	60.7	1	78.3	82.1	30	74.1	1	22.0	28.2	9	15.6	4	31.9	64.6	71.1	17	56.3	1
December ...	88.5	92.3	3	81.1	22	72.7	77.8	28	68.4	8	80.6	83.7	28	78.0	23	15.8	23.6	8	5.0	22	23.9	70.6	75.3	28	66.1	3
Yearly Means ...	85.2	88.8		80.1		66.4	71.9		59.5		75.8	79.2		71.8		18.9	26.3		11.6		29.2	63.6	70.0		55.9	

TABLE XXV.

Readings of a Mason's Hygrometer by Casella, exposed in a Stevenson's Screen on the Lawn, together with the deduced Dew Point, Vapour-Tension and Relative Humidity during the year 1897.

Months.	Dry Bulb.			Wet Bulb.			Dew Point.			Vapour-Tension.			Relative Humidity.		
	6 hours.	15 hours.	Means.	6 hours.	15 hours.	Means.	6 hours.	15 hours.	Means.	6 hours.	15 hours.	Means.	6 hours.	15 hours.	Means.
	°	°	°	°	°	°	°	°	°	Inch.	Inch.	Inch.	P. C.	P. C.	P. C.
January	73.5	85.4	79.4	72.5	77.2	74.8	71.8	71.9	71.8	.780	.783	.781	94.5	63.6	79.0
February... ...	74.4	84.8	79.6	72.5	77.5	75.0	71.1	72.7	71.9	.763	.807	.785	89.5	66.8	78.1
March	71.0	85.2	78.1	69.3	75.1	72.2	68.0	68.5	68.2	.685	.699	.692	89.8	57.7	73.7
April	68.4	82.7	75.5	66.5	72.2	69.3	65.0	65.2	65.1	.618	.622	.620	88.6	55.5	72.0
May	65.7	79.9	72.8	62.4	69.8	66.1	59.7	62.9	61.3	.514	.573	.543	81.5	55.7	68.6
June	65.2	76.7	70.9	63.2	68.6	65.9	61.6	62.9	62.2	.548	.574	.561	88.0	63.3	75.6
July	63.4	76.2	69.8	61.3	67.2	64.2	59.5	60.8	60.1	.511	.533	.522	87.8	59.2	73.5
August	63.9	76.0	69.9	62.0	64.3	63.1	60.5	56.0	58.2	.526	.449	.487	88.6	49.9	69.2
September ...	63.9	77.8	70.8	61.6	67.3	64.4	59.7	60.0	59.8	.514	.519	.516	87.1	54.5	70.8
October	65.1	79.8	72.4	63.7	69.5	66.6	62.6	62.5	62.5	.568	.565	.566	91.6	55.1	73.3
November ...	70.7	84.7	77.7	68.6	73.0	70.8	67.0	65.3	66.1	.662	.626	.644	88.1	51.9	70.0
December ...	75.0	85.5	80.2	73.7	76.6	75.1	72.8	70.8	71.8	.806	.755	.780	92.5	61.3	76.9
Yearly Means ...	68.3	81.2	74.8	66.4	71.5	69.0	64.9	65.0	64.9	.625	.625	.625	89.0	57.9	73.4

TABLE XXVI.

Means and Extremes of the readings of two Thermometers, the bulbs of which are 5 feet 2 inches and 10 feet respectively below the surface of the ground.

Months.	5 feet, 2 inches below.						10 feet below.					
	Means.	Maximum.	Date.	Minimum.	Date.	Range in Month.	Means.	Maximum.	Date.	Minimum.	Date.	Range in Month.
January	79°.90	80°.4	27 to 31	79°.3	1 & 2	1°.1	77°.02	77°.3	31	76°.8	1 & 2	0°.5
February	80.61	80.8	6 to 10 & 25 to 28	80.5	13 to 19	0.3	77.57	77.8	25 to 28	77.3	1	0.5
March	80.88	81.0	21 to 28	80.8	1 to 6	0.2	78.02	78.2	28 to 31	77.8	1 to 4	0.4
April	80.56	80.9	1 to 12	79.9	30	1.0	78.39	78.6	30	78.2	1	0.4
May	79.29	79.9	1 to 4	78.5	29 to 31	1.4	78.51	78.6	1, 3, 4 & 7 to 11	78.5	15 to 22 & 25 to 31	0.1
June	78.00	78.5	1 & 2	77.3	28 to 30	1.2	78.30	78.5	1	78.2	28 to 30	0.3
July	76.49	77.2	1	75.9	29 to 31	1.3	77.92	78.2	1	77.8	25 to 31	0.4
August	75.62	75.9	1	75.4	24 & 25	0.5	77.46	77.8	1	77.2	31	0.6
September ...	75.62	76.0	30	75.5	1 to 14	0.5	77.12	77.2	1, 5, 15.	76.9	30	0.3
October	76.19	76.6	31	76.0	1 to 6	0.6	76.93	77.0	often	76.9	22 to 24	0.1
November... ...	77.80	78.8	28 to 30	76.7	1	2.1	76.90	77.0	28 to 30	76.8	2 to 5, 16 & 17	0.2
December... ..	79.83	80.6	31	78.9	1 & 2	1.7	77.26	77.5	28 to 31	77.0	1 to 5	0.5
Yearly Means ...	78.40	78.9		77.9		1.0	77.62	77.8		77.4		0.4

TABLE XXVII.

Means and Extremes of the Readings of Solar Thermometers in Vacuo in the Sun's rays during the year 1897.

Months.	Hicks No. 211,682.					Hicks No. 508,310.				
	Means.	Maximum.	Date.	Minimum.	Date.	Means.	Maximum.	Date.	Minimum.	Date.
January	147°.8	155°.1	4	132°.6	14	153°.8	161°.1	4	137°.4	14
February	146.7	155.2	9	122.0	4	152.8	162.1	9	127.1	4
March	148.7	154.2	23	135.3	21	154.9	160.0	23	142.2	21
April	142.2	148.9	2	135.1	25	148.8	155.2	2	142.0	25
May	133.6	145.2	19	123.5	26	140.6	151.7	19	130.5	26
June	131.8	143.5	28	125.4	10	138.9	150.0	28	132.7	10
July	130.5	138.1	26	123.8	2	137.6	144.9	26	130.8	2
August	134.3	141.5	21	126.2	4	141.2	148.1	21	133.4	4
September	137.2	144.9	26	130.3	19	144.1	151.4	26	137.5	19
October	141.8	149.9	29	130.5	5	148.4	156.0	29	137.7	5
November	145.4	153.1	28	138.2	15	151.8	159.0	28	145.0	15
December	144.5	154.0	14	114.2	5	150.9	159.8	14	118.7	5
Yearly Means...	140.4	148.6		128.1		147.0	154.9		134.6	

TABLE XXVIII.

Daily Amount of Solar Radiation during the year 1897.

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1d	61.6°	56.7°	59.9°	56.9°	52.8°	53.5°	50.8°	53.2°	52.9°	56.2°	58.3°	63.8°
2	59.0	64.9	64.7	59.0	54.0	47.0	47.4	48.0	51.4	60.2	61.2	56.5
3	57.8	63.7	60.6	56.1	48.0	53.2	53.5	48.2	56.0	58.5	58.0	56.5
4	63.4	39.2	62.2	52.8	49.7	51.9	49 4	48.2	51.2	54.7	56.9	48.6
5	58 1	49.8	62.3	57.2	52.3	47.3	50.4	53.4	55.9	52.3	54.2	29.8
6	60.1	57.1	63.5	54.7	44.0	49.4	48.8	53.1	55.3	61.0	53.7	58.1
7	59.9	60.8	58.6	58.7	56.7	49.6	52.7	53.4	56.9	54.7	60.4	53.0
8	59.6	60.1	59.5	54.2	55.0	52.2	51.0	52.3	54.9	61.1	63.2	57.4
9	60.3	66.4	57.6	52.9	51.0	46.8	52.0	53.9	57.7	58.6	53.2	50.3
10	55.6	62.6	61.7	53.8	54.0	43.7	52.5	51.6	54.7	57.0	55.9	54.6
11	56.3	64.6	60.1	55.1	46.7	52.2	49.1	49.7	55.2	51.3	57.1	56.8
12	61.7	57.0	58.1	56.2	53.4	49.6	50.7	56.2	53.4	64.7	56.3	56.8
13	55.9	57.8	58.4	52.9	48.3	53.1	52.0	58.4	54.9	54.7	50.0	55.1
14	47.2	60.9	58.3	52.1	50.2	46.7	52.2	53.4	50.2	62.8	60.9	64.4
15	56.3	58.6	56.0	60.0	46.5	54.0	47.2	58.0	61.0	54.7	50.5	62.6
16	63.1	58.4	53.2	58.9	47.6	52.1	50.5	51.8	55.2	52.7	55.2	60.3
17	58.6	61.6	61.5	58.6	52.7	51.8	50 8	51.4	54.6	54.6	55.4	53.7
18	56.2	59.5	57.0	56.1	51.0	49.1	48.7	59.5	54.8	59.1	53.8	53.8
19	58.1	62.1	54.8	47.4	57.3	53.8	55.8	51.3	47.7	60.0	51.3	56.4
20	58.1	60.1	59.5	53.4	43.2	48.0	52.1	53.7	52.9	57.5	57.1	62.3
21	53.9	61.3	50.9	58 0	43.7	53.3	51.8	58.4	54.7	59.7	53.9	59.2
22	61.4	61.0	58.1	55.1	50.1	51.4	47.9	54.4	58.8	57.1	53.0	51.3
23	61.3	59.9	63.7	51.3	47.9	48.6	49.8	56.8	55.2	57.8	57.9	48.3
24	59.5	62.3	60.5	55.6	45.2	47.1	44.1	51.1	54.3	58.3	53.2	45.9
25	62 9	53.4	61.2	47.4	49.7	50.1	52.1	53.6	58.5	58.3	57.0	55.5
26	56 3	60.7	63.6	54.5	42.0	49.5	55.8	54.4	63.3	56.4	55.4	60.2
27	59 6	62.4	60.2	55.0	47.7	51.7	43.7	53.6	57.7	55.1	57.6	61.7
28	60.1	54.7	61.5	55.0	48.5	59.2	49.5	54.2	54.1	56.8	61.7	64.0
29	63.8		61.1	51.3	53.1	52.7	49.0	50.8	58.5	62.8	56.2	62.7
30	55.5		61.6	60.2	53.8	56.6	47.7	54.2	52.8	59.9	54.2	58.6
31	61.6		60.2		53 2		48.1	51.4		56.5		57.9
Monthly Means	**58.8**	**59.2**	**59.7**	**55.0**	**50.0**	**50.8**	**50.2**	**53.3**	**55.2**	**57.6**	**56.1**	**56.0**

TABLE XXIX.

Daily Duration of Bright Sunshine during the year 1897.

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	h	h	h	h	h	h	h	h	h	h	h	h
1d	3.9	10.6	7.2	11.0	6.5	7.2	10.4	9.7	7.9	8.3	7.3	4.9
2	11.3	5.0	4 7	10.7	9.0	3.6	7.4	8.0	8.9	9.8	6.9	9.5
3	10.2	0.4	9.4	9.5	10.0	4.7	8.6	9.3	6.7	6.9	8.0	10.8
4	10.7	0.0	10.6	8.8	5.0	6.3	6.9	9.8	7.9	4.1	7.9	4.1
5	7.3	0.6	9.8	8.5	10.4	8.3	7.7	3.9	3.4	1.8	11.0	0.0
6	6.6	8.3	7.9	10.1	10.0	8.7	5.8	5.9	3.6	7.6	11.7	4.3
7	4.3	9 8	9.0	7.9	9.2	6 5	9.7	7.7	9.0	7.0	10.8	9.3
8	4.2	4.4	6.8	8.5	6.4	8.3	8.6	7.2	8.6	5.2	11.0	8.7
9	9.1	7.2	10.1	8.8	10.2	5.3	5.4	7.8	6.5	11.3	9.0	11.3
10	5.5	10.7	6.0	9.2	5.4	0.6	6.5	10.5	10.3	7.5	9.1	7.6
11	9.0	11.2	3.6	7.9	10.2	9.4	5.2	8.7	9.7	11.0	7.6	5.4
12	8.3	11.3	10.6	8.7	9.7	5.6	6.5	5.6	8.0	5.6	7.6	11.0
13	4 5	10.6	10.4	8.6	5.7	9.8	10.0	4.2	7.2	11.2	2.6	11.4
14	1.0	4.7	10.9	7.2	9.6	5 8	6.8	10.1	10.8	8.1	11.6	10.5
15	2.5	10.3	10.8	9.5	10.5	6.5	6.4	8.0	6.9	11.3	6.8	3.2
16	9.4	8.5	11.0	8.4	10.5	6.9	8.1	8.0	9.8	3.2	9.8	8.8
17	8.8	10.4	10.1	10.4	3.5	6.4	7.5	10.0	9.7	8.0	10.3	11.7
18	8.9	7.9	9.0	10.2	9.6	7.7	8.3	6.8	9.2	8.9	5.6	10.3
19	8.6	1.3	9.7	10.4	7.8	3.3	8.6	6.7	10.9	6.7	10.9	11.5
20	2.1	4.4	6.1	9.3	10.5	7.7	9.4	6.5	9.9	8.1	10.4	4.3
21	2.3	5.2	2.7	9.2	10.6	9.4	6 8	7.6	10.6	10.4	2.0	1.8
22	8.5	5.3	7.8	7.6	10.3	7.1	9.8	3.9	10.5	9.1	5.6	0.1
23	5.4	10.7	9.7	6.5	10.0	10.2	9.6	3.1	10.6	6.7	6.4	0.2
24	4.0	10.6	7.8	1.9	9.9	9.5	4.4	10.4	11.1	7.5	10.5	0.3
25	7.7	11.5	8.4	10.2	10.3	8.7	8.8	7.2	7.5	8.2	10.1	9.0
26	2.9	9.3	7.8	5.0	1.5	3.4	6.8	7.9	4.7	6.5	6.6	10.5
27	10.7	1.6	6.2	1.4	3.3	3.2	1.0	6.7	11.4	9.9	11.6	9.7
28	8.9	5.6	6.9	8.3	8.9	3.8	9.4	4.1	5.2	11.4	7.8	11.2
29	4.2		11.3	3.8	9.3	10.3	10.2	6.3	8.9	9.3	9.1	11.0
30	11.8		5.7	2.6	8.9	6.8	10.2	7.3	6.7	8.2	11.4	8.9
31	6.3		5.5		9.8		10.3	9.6		10.9		11.5
Totals	208.9	197.4	253.5	240.1	262.5	201.0	241.1	228.5	252.1	249.7	257.0	232.8

TABLE XXX.

Total Amount of Bright Sunshine registered in each hour of the day for each Month of the year 1897.

Months.	Registered duration of Sunshine in the hour ending														Total hours of Sunshine.	Corresponding period (in hours) during which the Sun was above the horizon.	Percentage of possible Sunshine.
	6 h.	7 h.	8 h.	9 h.	10 h.	11 h.	12 h.	13 h.	14 h.	15 h.	16 h.	17 h.	18 h.	19 h.			
		h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	
January	...	12.4	19.3	21.5	22.6	22.6	18.6	18.3	17.9	15.2	14.9	13.7	11.4	0.5	208.9	406.3	51
February...	...	8.7	17.9	14.2	19.7	19.5	19.5	18.1	18.2	17.1	18.1	18.5	7.9	...	197.4	355.7	55
March	...	8.6	24.2	27.5	28.2	28.4	24.7	22.1	22.7	21.3	19.3	18.6	7.9	...	253.5	376.5	67
April	...	6.8	18.0	21.9	21.9	23.6	25.2	25.3	25.2	23.4	23.1	21.4	4.3	...	240.1	347.3	69
May	...	4.3	25.7	26.9	26.5	26.6	26.9	23.9	24.8	23.8	26.1	23.9	3.1	...	262.5	344.3	76
June	...	1.1	16.3	21.4	23.7	24.9	22.5	22.2	19.1	19.2	14.6	14.6	1.4	...	201.0	327.0	61
July	...	1.3	17.1	21.4	24.9	23.8	23.8	26.1	26.3	25.8	23.5	24.2	2.9	...	241.1	340.9	71
August	...	2.0	18.4	21.8	24.4	26.5	25.0	24.5	25.5	21.4	19.8	17.2	2.0	...	228.5	353.2	65
September	...	5.3	18.9	23.5	23.9	25.9	24.7	25.4	25.1	24.4	23.6	22.5	8.9	...	252.1	358.2	70
October	...	12.7	22.6	25.8	26.5	25.3	24.5	22.1	21.8	19.6	18.7	19.1	11.0	...	249.7	387.5	64
November	...	14.6	22.8	24.2	22.3	23.6	24.4	23.9	22.3	21.4	21.2	20.1	15.7	0.5	257.0	389.8	66
December	...	13.4	17.4	19.0	19.2	20.9	21.1	21.5	24.1	22.1	21.9	19.3	12.2	0.7	232.8	411.3	57
For the year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2824.6	4398.0	64

The hours are reckoned from *apparent* midnight.

TABLE XXXI.

Monthly Rainfall in 1897, compared with the Average for the period 1875-97, as recorded by Glaisher's Raingauge.

Months.	1875—1897.				1897.				Departure from Average in 1897.	
	Mean Rainfall.	No. of Days.	Greatest fall in 24 hours.	Date.	Rainfall.	No. of Days.	Greatest fall in 24 hours.	Date.	Rainfall.	No. of Days.
	ins.		ins.		ins.		ins.		ins.	
January	7.29	19	5.66	3—96	6.35	17	1.36	25	— 0.94	— 2
February	6.98	19	17.34	20—96	3.14	19	0.64	3	— 3.84	0
March	8.16	20	7.45	21—79	0.88	10	0.39	11	— 7.28	—10
April	5.52	17	3.97	15—76	1.75	14	0.46	22	— 3.77	— 3
May	4.28	16	11.24	7—84	0.66	6	0.18	1	— 3.62	—10
June	2.02	16	1.18	6—85	2.51	13	0.95	10	+ 0.49	— 3
July	2.26	18	2.06	11—78	1.50	10	0.64	28	— 0.76	— 8
August	2.24	19	1.06	1—89 & 13—95	1.72	20	0.22	8	— 0.52	+ 1
September	1.44	15	1.10	22—82	1.77	16	0.35	18	+ 0.33	+ 1
October...	1.62	14	1 83	29—75	1.40	16	0.20	16	— 0.22	+ 2
November	1.85	11	2.04	24—77	1.05	9	0.38	3	— 0.80	— 2
December	4.97	17	4.39	23—78	4.53	18	2.05	6	— 0.44	+ 1
For the Year	48.63	201	17.34	20.2.96	27.26	168	2.05	Dec. 6	—21.37	—33

TABLE XXXII.

Daily Rainfall during the year 1897.

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1d	0.850	.....	.....	.....	.....	.....	.....	.....	0.100	0.180	.....	0.045
2	0.100	0.130	0.035	.....	.....	.....	.....	0.080	.....	0.090	0.410	0.035
3	0.030	0.565	.....	.....	.....	.....	.....	.....	.....	0.215	.....	.....
4	0.025	0.025	.....	.....	0.055	.....	0.030	.....	.....	0.030	0.035	0.015
5	0.110	0.135	.....	0.050	.....	.....	0.040	.....	.....	0.165	.....	1.415
6	0.060	0.015	.....	0.055	.....	.....	0.030	0.025	.....	.....	.....	0.795
7	0.450	.....	.....	0.005	.....	0.180	.....	0.070	.....	.....	.....	.....
8	0.270	0.140	.....	0.065	.....	0.055	0.090	0.200	0.040	0.090	.....	.....
9	.....	0.015	0.040	0.065	.....	0.525	0.170	0.020	0.090	.....	.....	.....
10	.....	0.275	0.330	0.245	.....	0.490	0.090	0.015	0.190	0.075	.....	.....
11	.....	.....	.....	.....	.....	.....	0.075	0.010	0.175	0.040	0.105	0.240
12	.....	.....	.....	0.035	.....	.....	.....	0.380	0.015	0.085	0.025	.....
13	0.265	.....	.....	0.015	0.070	.....	.....	.....	0.160	0.045	.....	0.010
14	1.060	0.110	0.040	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	.....	0.045	.....	.....	.....	.....	0.080	0.090	0.150	.....	.....	0.060
16	0.065	0.070	.....	.....	.....	0.105	.....	.....	0.035	0.255	.....	0.090
17	.....	0.110	.....	.....	0.030	0.105	0.110	0.135	0.235	0.040	.....	0.065
18	.....	0.025	.....	.....	0.020	0.025	0.120	0.115	0.205	.....	0.020	0.005
19	.....	0.110	.....	.....	.....	0.420	0.060	0.015	.....	.....	0.140	.....
20	0.025	0.505	0.020	.....	.....	0.010	.....	0.140	0.015	.....	.....	0.225
21	.....	0.045	.....	0.260	.....	.....	.....	.....	.....	.....	.....	0.240
22	.....	0.165	.....	0.190	.....	0.025	.....	.....	.....	.....	0.135	0.210
23	0.370	.....	0.140	0.090	.....	.....	.....	0.120	.....	0.020	.....	0.165
24	1.360	.....	.....	.....	.....	.....	.....	.....	.....	0.050	.....	0.630
25	0.880	.....	.....	.....	.....	.....	.....	.....	0.250	0.020	.....	0.120
26	.....	.....	.....	0.020	.....	0.155	.....	0.020	.....	.....	0.165	.....
27	.....	0.490	0.060	0.560	.....	0.415	0.680	0.145	.....	.....	.....	.....
28	.....	0.240	0.110	.....	0.030	.....	.....	0.045	.....	.....	.....	.....
29	0.330		.....	0.100	.....	.....	.....	0.050	0.030	.....	0.050	.....
30	.....		0.020	0.480	.....	.....	.....	0.090	0.130	.....	0.015	0.225
31	.....		.....		.....		.....	.....		.....		0.200
Monthly Sums ...	6.250	3.215	0.795	2.235	0.205	2.490	1.575	1.765	1.820	1.400	1.100	4.790

TABLE XXXIII.

Hourly Rainfall during the year 1897.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Means. 1897.	Means. 1888-1897.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.000	0.380	0.000	0.020	0.000	0.270	0.180	0.025	0.130	0.030	0.000	0.100	0.095	0.176
2	0.320	0.360	0.030	0.110	0.000	0.170	0.085	0.095	0.110	0.035	0.000	0.065	0.115	0.195
3	0.205	0.305	0.010	0.100	0.000	0.115	0.010	0.125	0.140	0.115	0.005	0.100	0.102	0.209
4	0.435	0.045	0.000	0.075	0.000	0.080	0.050	0.150	0.020	0.060	0.000	0.250	0.097	0.221
5	0.040	0.150	0.020	0.110	0.000	0.135	0.055	0.075	0.260	0.105	0.055	0.780	0.149	0.193
6	0.235	0.135	0.000	0.000	0.000	0.040	0.040	0.070	0.105	0.315	0.015	0.060	0.085	0.192
7	0.595	0.230	0.000	0.130	0.000	0.055	0.010	0.155	0.125	0.050	0.030	0.105	0.124	0.194
8	0.165	0.235	0.000	0.160	0.000	0.015	0.030	0.270	0.105	0.110	0.030	0.165	0.107	0.185
9	0.075	0.145	0.000	0.040	0.000	0.205	0.000	0.065	0.155	0.150	0.025	0.070	0.077	0.179
10	0.000	0.060	0.000	0.000	0.000	0.130	0.000	0.135	0.020	0.065	0.000	0.080	0.041	0.158
11	0.135	0.090	0.000	0.000	0.010	0.035	0.000	0.035	0.000	0.000	0.000	0.185	0.041	0.170
12	0.285	0.050	0.000	0.040	0.055	0.000	0.010	0.030	0.000	0.035	0.000	0.090	0.050	0.188
13	1.845	0.020	0.025	0.000	0.075	0.020	0.020	0.005	0.000	0.000	0.000	0.015	0.169	0.189
14	0.545	0.075	0.060	0.000	0.030	0.000	0.535	0.030	0.010	0.030	0.000	0.070	0.115	0.185
15	0.765	0.020	0.005	0.000	0.015	0.000	0.205	0.045	0.000	0.000	0.035	0.050	0.095	0.203
16	0.075	0.225	0.200	0.000	0.000	0.000	0.000	0.020	0.000	0.010	0.125	0.650	0.109	0.188
17	0.025	0.190	0.170	0.000	0.000	0.095	0.035	0.025	0.000	0.025	0.100	0.020	0.057	0.155
18	0.010	0.085	0.085	0.000	0.000	0.190	0.010	0.050	0.015	0.005	0.160	0.050	0.055	0.147
19	0.305	0.040	0.010	0.015	0.000	0.025	0.020	0.075	0.125	0.065	0.015	0.265	0.080	0.159
20	0.105	0.010	0.000	0.390	0.000	0.075	0.055	0.095	0.015	0.085	0.195	0.185	0.101	0.148
21	0.000	0.065	0.000	0.305	0.000	0.200	0.020	0.035	0.100	0.030	0.205	0.690	0.137	0.148
22	0.030	0.090	0.015	0.200	0.000	0.100	0.020	0.075	0.020	0.005	0.055	0.610	0.102	0.168
23	0.025	0.000	0.160	0.320	0.020	0.175	0.145	0.080	0.160	0.030	0.050	0.060	0.102	0.184
24	0.030	0.210	0.005	0.220	0.000	0.360	0.040	0.000	0.205	0.045	0.000	0.075	0.099	0.183
Monthly Sums ...	6.250	3.215	0.795	2.235	0.205	2.490	1.575	1.765	1.820	1.400	1.100	4.790	.....	.....

TABLE XXXIV.

Duration of Rainfall during the year 1897.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Means. 1897.	Means. 1888-97.
	minutes.	minutes.	minutes.	minutes.	minutes.	minutes.	minutes.	minutes.	minutes.	minutes.	minutes.	minutes.	minutes.	minutes.
1h	0	120	0	40	0	145	30	35	112	95	0	50	52	75
2	70	175	25	97	0	75	100	110	123	107	0	65	79	82
3	120	250	20	135	0	97	30	125	70	155	15	50	89	86
4	94	72	0	70	0	125	45	70	42	62	0	55	53	82
5	85	105	12	100	0	115	65	120	105	85	50	135	81	85
6	80	62	0	0	0	45	20	152	100	150	45	57	59	78
7	105	90	0	135	0	95	10	147	142	22	45	55	70	76
8	84	150	0	75	0	30	30	115	75	110	12	105	65	65
9	25	87	0	45	0	70	0	64	70	47	25	50	40	57
10	0	60	0	0	0	45	0	55	7	45	0	57	22	38
11	35	42	0	0	15	7	0	45	0	0	0	85	19	46
12	60	40	0	22	35	0	30	70	0	30	0	40	27	47
13	114	20	30	0	60	20	25	25	0	0	0	10	25	50
14	208	40	25	0	30	0	50	30	15	35	0	67	42	53
15	185	30	15	0	40	0	87	35	0	0	53	50	41	56
16	95	90	120	0	0	0	0	40	0	20	37	137	45	56
17	25	90	160	0	0	42	55	30	0	40	12	7	38	53
18	15	55	117	0	0	92	40	60	5	30	82	50	45	55
19	60	42	60	20	0	20	20	125	75	40	60	80	50	63
20	15	30	0	124	0	105	70	110	55	45	120	90	64	61
21	0	62	0	137	0	110	15	75	45	80	70	80	56	65
22	50	100	15	175	0	110	20	80	90	20	37	77	64	68
23	12	0	50	65	15	140	85	55	90	95	15	32	54	74
24	20	202	10	60	0	162	30	0	110	45	0	20	55	76
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Totals	25.57	33.34	10.59	21.40	3.15	27.30	14.17	29.33	22.11	22.38	11.18	25.4	20.35	25.49

TABLE XXXV.

Number of Times Rain fell during the year 1897.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Totals 1897.	Average 1888-97.
1h	0	4	0	2	0	4	2	2	5	4	0	2	25	33
2	2	8	1	4	0	2	3	4	4	4	0	2	34	35
3	4	7	1	3	0	3	1	4	3	6	1	2	35	37
4	5	5	0	2	0	4	4	2	2	3	0	4	31	37
5	3	6	1	4	0	3	2	4	3	7	2	5	40	38
6	2	5	0	0	0	3	1	5	4	5	1	2	28	35
7	3	5	0	4	0	3	1	6	6	2	1	3	34	35
8	4	5	0	4	0	2	2	5	2	5	1	3	33	30
9	2	6	0	2	0	4	0	3	3	5	2	3	30	27
10	0	3	0	0	0	2	0	2	1	1	0	4	13	18
11	2	3	0	0	1	1	0	2	0	0	0	4	13	20
12	1	3	0	2	2	0	1	2	0	2	0	2	15	20
13	4	1	1	0	3	2	1	1	0	0	0	1	14	23
14	5	2	1	0	2	0	1	2	1	2	0	4	20	23
15	5	1	1	0	2	0	4	2	0	0	2	2	19	26
16	3	2	2	0	0	0	0	2	0	1	1	4	15	25
17	1	2	3	0	0	2	3	3	0	2	1	1	18	24
18	1	3	3	0	0	3	2	1	1	1	2	1	18	24
19	1	2	1	1	0	2	2	4	3	2	2	3	23	27
20	1	2	0	4	0	4	3	4	2	1	2	3	26	26
21	0	4	0	5	0	2	1	4	3	2	2	2	25	28
22	1	4	1	4	0	3	2	3	3	1	3	3	28	30
23	1	0	2	3	1	4	3	2	2	3	1	2	24	31
24	1	8	1	1	0	5	1	0	5	2	0	2	26	33
Totals	52	91	19	45	11	58	40	69	53	61	24	64	587	685

TABLE XXXVI.

Greatest rainfall in one day and greatest intensities in 1897.

Months.	Greatest fall in one day.	Day.	Greatest intensities of Rainfall.
	Ins.		Ins. h. m. h. m.
January	1.360	24	0.700 from 12—22 to 12—40 on 14th.
February	0.565	3	0.150 „ 6—36 „ 6—46 „ 27th.
March	0.330	10	0.120 „ 15—15 „ 15—22 „ 10th.
April...	0.560	27	0.085 „ 19—53 „ 20—00 „ 30th.
May	0.070	13	0.020 „ 12—45 „ 12—52 „ 4th.
June	0.525	9	0.200 „ 23—50 „ 23—55 „ 9th.
July	0.680	27	0.420 „ 13—15 „ 13—25 „ 27th.
August	0.380	12	0.090 „ 8—50 „ 8—53 „ 23rd.
September	0.250	25	0.160 „ 4—15 „ 4—25 „ 25th.
October	0.275	16	0.170 „ 5— 5 „ 5—12 „ 16th.
November	0.410	2	0.080 „ 16—48 „ 16—55 „ 26th.
December	1.415	5	0.470 „ 4—15 „ 4—25 „ 6th.

TABLE XXXVII.

Monthly and Mean Daily Amount of Evaporation during the year 1897.

Months.	Total Evaporation.	Mean daily Evaporation.	Rainfall.	Excess of Evaporation over Rainfall.
	ins.	ins.	ins.	ins.
January	6.710	0.216	5.400	+ 1.310
February	6.195	0.221	3.215	+ 2.980
March	7.705	0.249	0.795	+ 6.910
April	6.605	0.220	2.235	+ 4.370
May	6.095	0.197	0.205	+ 5.890
June	4.310	0.144	2.490	+ 1.820
July	4.825	0.156	1.575	+ 3.250
August...	5.845	0.189	1.865	+ 3.980
September	6.870	0.229	1.800	+ 5.070
October	7.430	0.240	1.320	+ 6.110
November	8.465	0.282	1.145	+ 7.320
December	* 7.225	0.249	2.545	+ 4.680
For the Year	78.280	0.216	24.590	+ 53.690

* On December 5, the Evaporometer overflowed ; the number of days employed for this month has been 30.

TABLE XXXVIII.

Daily Amount of Ozone.

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	4.0	5.0	6.0	3.5	2.5	2.0	5.0	4.0	6.0	5.0	4.0	4.0
2	0 5	6.0	5.0	1.0	4.0	3.5	6.0	5.0	7.0	9.0	3.0	3.5
3	4.0	9 0	4.0	6.0	5.0	6.0	6.0	5.0	4.0	8.0	4.0	4.0
4	3.0	4.0	5.0	3.0	5.0	4.0	7.0	1.5	3.0	7.0	3.0	4.5
5	3.5	6.0	5.0	3.0	6.0	3.5	6.5	6.0	6.0	5.5	5.0	4.0
6	4.5	7.0	5.0	4 0	4.0	5.0	6.0	6.5	5.0	6.0	4.0	6.0
7	1.0	5.0	4 0	6.0	4.0	4.5	8.0	7.0	4.0	4.0	3.0	3.0
8	1.0	5.0	4.0	6.5	6.0	4.0	5.0	5.5	5.0	5.0	4.0	1.0
9	2.0	7.0	5.0	5 0	5.5	4.0	7.0	6.0	6.0	5.0	3.0	1.0
10	1.5	6.0	4.0	5.0	6.0	3 5	6.0	6.0	6.0	3.0	4.5	0.0
11	1.0	5.0	4.5	7.0	6.0	7.0	6 5	5.0	6.0	6.0	5.0	3.5
12	3.0	5.0	3.5	6 0	4.0	1.5	6.0	7.0	8.0	4.5	3.0	1.0
13	2.0	4.0	1.0	8.0	6.0	0.0	5.0	6.0	7.0	5.5	3.5	0.0
14	2.0	7.0	1.0	5.0	7.0	4.0	4.0	6.0	7.0	4 0	3.0	0.0
15	2.0	5.0	1.5	5 5	5.0	0.0	4.0	5.0	6.0	4.5	3.5	0.5
16	1.0	6.0	1.0	5.0	4 0	0 0	5.0	4.0	6.0	3.0	3.5	0.0
17	1.0	6.0	3.0	3.0	0.0	4.5	5.0	7.0	7.0	6.0	4.0	0.0
18	1.0	4.0	4.5	3.0	0.0	5.0	4.0	5.0	6.0	5.0	5.0	0.5
19	1.0	0.0	4.0	5.0	0.0	4.0	6.0	7.0	4.0	6.0	3.5	2.0
20	3.0	1.0	5.0	3.0	1.5	4.0	1.0	5.0	7.0	5.0	5.0	2.5
21	3.5	3 0	3.5	3.5	1.0	3.0	4.0	6.0	5.0	5.0	3.0	3.5
22	4.0	6.0	2.5	6.0	2.0	3.0	0.0	3.0	6.0	5.0	5.0	5.0
23	5.0	2.0	2.0	6.0	2.0	5.0	2.5	5.0	5.0	4.5	4.0	5.0
24	6.0	5.0	3 0	6.5	1.0	6.0	4.0	5.0	5.0	3.5	5.0	3.0
25	5.0	3.0	4.0	5.0	1.5	1.0	5.0	4.0	5.0	3.0	3.5	1.0
26	5.5	2.5	3.0	6.5	0.0	6.0	3.5	4.0	8.0	3.0	1.0	1.5
27	5.0	4.5	3.0	6.5	0 0	5.5	6.0	5.0	4.0	4.0	2.0	0.5
28	4.0	6.0	6.0	7.5	7.0	6.0	6.5	7.0	5.0	3.0	2.0	2.0
29	5.0		4.0	6.0	1.0	5.0	5.0	4.0	3.5	3.0	4.0	1.0
30	5.5		5.0	5.0	1.0	5.0	4.5	6.0	5.0	3.5	6.0	1.0
31	4.0		5.0		0.0		2.0	7.0		2.0		0.0
Monthly Means....	3.0	4.8	3.8	5.1	3.2	3.8	4.9	5.3	5.6	4.7	3.7	2.1

TABLE XXXIX.

Number of hours of prevalence of each wind during the year 1897.

Months.	North.	N. b. E.	N. N. E.	N. E. b. N.	N. E.	N. E. b. E.	E. N. E.	E. b. N.	East.	E. b. S.	E. S. E.	S. E. b. E.	S. E.	S. E. b. S.	S. S. E.	S. b. E.	South.	S. b W.	S. S. W.	S. W. b. S.	S. W.	S. W. b. W.	W. S. W.	W. b. S.	West.	W. b. N.	W. N. W.	N. W. b. W.	N. W.	N. W. b. N.	N. N. W.	N. b. W.	Calms.	Totals.
	h.	h.	h.	h.	h.	h.	h.	h.	h	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.	h.		h.
January	13	9	22	13	26	56	63	86	42	27	86	74	36	5	43	18	11	5	8	2	9	7	...	2	3	3	8	18	7	5	21	16	...	744
February	6	4	18	8	2	6	3	40	122	224	101	51	30	11	6	...	...	...	...	...	2	3	5	4	9	7	4	1	...	2	...	3	...	672
March	...	1	...	...	...	1	16	54	49	90	207	148	47	38	28	14	2	6	2	1	3	3	6	2	1	3	3	4	...	7	1	7	...	744
April	6	6	1	1	1	1	12	29	19	118	309	146	34	22	6	5	...	...	...	...	...	1	...	1	...	1	1	...	...	...	...	...	...	720
May	...	2	2	...	1	1	5	27	17	50	235	216	41	44	16	19	6	18	1	...	...	2	8	5	2	5	2	7	3	4	4	1	...	744
June	...	1	2	1	1	1	20	46	30	94	217	176	58	40	16	2	1	...	3	...	...	...	8	...	1	...	...	...	1	...	...	1	...	720
July	...	...	1	1	2	4	22	42	80	117	223	165	38	12	9	7	...	...	...	...	...	...	1	1	1	12	2	1	...	1	2	...	...	744
August	...	...	1	1	2	2	15	29	73	145	275	140	28	22	4	2	2	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	744
September	...	...	...	...	...	2	15	75	115	177	192	88	33	7	5	2	3	1	...	...	...	1	1	1	1	...	...	1	...	...	...	...	...	720
October	12	16	9	7	5	28	27	63	93	113	121	92	38	11	4	...	...	1	1	...	...	1	8	...	4	6	8	18	9	9	1	9	...	744
November	5	3	5	6	5	8	53	103	110	120	110	59	15	18	8	...	1	5	3	2	3	5	6	14	4	4	3	29	2	5	4	2	...	720
December	20	15	20	28	14	36	76	127	102	66	48	28	3	1	3	2	...	1	...	1	...	3	2	2	4	14	20	17	19	35	17	20	...	744
Totals	62	57	81	66	59	116	327	721	852	1371	2124	1383	401	231	148	71	26	38	18	6	17	26	46	32	30	55	51	97	41	68	50	59	...	8760
Percentages ...	0.71	0.65	0.92	0.75	0.67	1.67	3.73	8.23	9 73	15.65	24.25	15.79	4.58	2.64	1.69	0.81	0.30	0.43	0.21	0.07	0.19	0.30	0.53	0.37	0.34	0.63	0.58	1.11	0.47	0.78	0.57	0.67	...	

TABLE XL.

Observed Mean Hourly Velocity of the Wind in 1897.

Hours.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.		Variation + above − below } Mean.	
													1897.	1876-97.	1897.	1876-97.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
0h ...	6.4	14.1	6.9	9.3	9.1	9.2	9.5	11.2	11.2	7.3	7.3	9.4	9.2	8.4	−2.8	−2.8
1 ...	5.9	13.2	7.4	9.2	8.6	8.4	9.8	10.1	10.2	7.0	6.9	8.6	8.8	8.3	−3.2	−2.9
2 ...	5.5	13.6	7.3	9.3	8.7	8.5	9.3	10.8	10.2	7.1	6.6	8.4	8.8	8.3	−3.2	−2.9
3 ...	5.9	12.6	6.9	8.5	8.5	8.9	9.1	10.7	10.5	6.6	7.0	8.3	8.6	8.2	−3.4	−3.0
4 ...	5.9	12.5	7.0	8.7	8.8	8.8	9.2	10.8	10.0	7.0	7.1	8.5	8.7	8.2	−3.3	−3.0
5 ...	6.0	12.2	7.2	8.9	8.5	9.5	9.1	10.5	10.2	7.6	6.7	8.3	8.7	8.2	−3.3	−3.0
6 ...	6.1	12.9	7.6	9.3	8.7	9.2	9.5	11.5	10.2	7.7	7.5	8.3	9.0	8.4	−3.0	−2.8
7 ...	7.2	13.9	7.8	9.6	9.0	9.7	9.1	11.6	11.1	8.6	10.1	9.8	9.8	9.1	−2.2	−2.1
8 ...	10.0	17.1	11.4	13.3	11.7	11.5	11.5	14.5	15.7	12.6	12.6	12.1	12.8	11.6	+0.8	+0.4
9 ...	10.8	17.4	13.4	15.5	14.5	14.2	13.9	15.9	17.4	12.9	12.8	12.1	14.2	13.6	+2.2	+2.4
10 ...	11.9	19.9	14.4	17.7	15.9	17.5	16.5	19.3	19.8	14.8	14.4	14.2	16.4	15.1	+4.4	+3.9
11 ...	12.2	20.0	14.6	18.1	16.8	17.8	16.7	19.9	20.0	15.5	14.4	14.9	16.7	15.5	+4.7	+4.3
12 ...	12.2	20.3	15.1	18.6	17.4	18.0	17.3	20.9	20.8	15.9	14.7	16.0	17.3	15.9	+5.3	+4.7
13 ...	12.4	20.2	14.2	18.9	17.5	17.4	17.5	20.5	20.9	16.0	14.9	15.9	17.2	15.9	+5.2	+4.7
14 ...	11.4	20.2	14.3	18.9	17.4	17.3	18.1	21.1	20.8	15.4	14.8	15.7	17.1	15.9	+5.1	+4.7
15 ...	10.7	19.6	13.6	18.1	16.2	16.3	16.8	19.7	20.0	15.1	13.5	15.0	16.2	15.2	+4.2	+4.0
16 ...	10.3	19.3	13.4	17.1	15.3	15.1	16.2	18.8	19.5	15.2	13.3	14.4	15.7	14.6	+3.7	+3.4
17 ..	9.7	18.0	12.0	15.8	13.0	12.8	13.7	15.5	18.2	13.9	12.6	13.4	14.0	12.9	+2.0	+1.7
18 ...	8.8	16.4	9.7	12.2	9.9	11.1	10.1	12.0	14.2	11.2	11.1	12.1	11.6	10.8	− .4	−0.4
19 ...	7.5	14.5	7.9	10.8	9.3	10.7	9.7	10.8	12.2	8.6	8.4	11.0	10.1	9.2	−1.9	−2.0
20 ...	6.3	14.7	8.2	10.8	9.2	10.8	9.7	11.3	12.2	7.7	7.8	10.3	9.9	8.9	−2.1	−2.3
21 ...	6.3	14.4	7.8	9.9	9.2	10.4	9.3	11.2	12.5	7.3	8.0	10.3	9.7	8.7	−2.3	−2.5
22 ...	6.1	14.8	6.9	9.8	8.6	9.3	9.4	11.1	12.1	6.9	8.1	8.4	9.3	8.6	−2.7	−2.6
23 ...	6.0	14.3	7.1	9.6	8.7	9.2	9.4	11.7	11.8	6.6	7.7	9.1	9.3	8.4	−2.7	−2.8

TABLE XLI.

Mean Velocity of the Wind for each day of the year 1897.

(miles per hour.)

Days.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1d	10.3	12.9	14.5	9.4	4.2	7.0	10.0	7.9	10.5	19.5	9.8	10.3
2	8.9	14.4	10.7	13.6	4.5	10.2	14.3	5.6	12.9	17.2	6.8	8.7
3	9.9	18.2	11.1	12.1	9.0	13.8	14.3	9.3	8.6	13.8	11.0	11.0
4	10.4	15.3	10.6	10.3	11.2	16.8	18.4	17.6	13.8	14.2	11.5	15.4
5	10.2	18.0	11.2	11.8	17.2	14.2	17.3	19.5	17.2	8.6	10.4	31.5
6	8.2	18.5	12.2	20.0	15.5	13.6	16.0	16.5	14.8	10.5	8.8	20.1
7	5.7	17.8	12.4	19.1	11.0	13.1	10.6	15.8	16.1	8.3	7.2	7.1
8	5.0	16.0	12.2	16.8	11.5	11.0	12.9	14.8	17.9	11.6	8.0	6.6
9	7.4	13.1	8.9	18.9	14.3	10.0	14.3	11.5	15.4	13.1	8.2	7.0
10	6.7	15.4	5.6	16.7	10.3	7.0	12.1	15.3	14.9	10.8	11.3	8.1
11	5.3	13.5	4.4	15.3	15.2	12.9	13.4	19.4	13.4	14.9	12.3	6.6
12	7.2	10.6	8.2	14.1	13.1	14.8	12.1	19.2	11.6	13.6	8.4	8.1
13	9.9	11.1	9.6	12.7	11.9	13.1	13.1	16.8	12.8	11.7	9.2	8.9
14	8.7	14.4	9.9	6.6	7.8	10.7	9.2	8.6	18.0	10.3	13.4	9.5
15	6.5	19.6	11.0	8.9	6.7	18.7	11.1	12.4	15.3	10.1	13.3	6.1
16	8.1	21.6	11.3	9.6	9.5	14.8	7.1	13.1	18.6	7.4	15.2	8.3
17	8.4	23.2	11.7	8.1	11.0	12.7	12.6	18.3	19.3	10.9	14.1	9.7
18	7.0	22.4	12.9	9.2	13.7	10.7	15.3	17.5	14.2	10.3	16.9	10.0
19	6.8	17.1	13.5	12.9	6.2	9.8	12.0	14.8	13.1	7.5	15.6	11.5
20	8.7	7.8	13.9	10.4	6.4	13.9	10.4	12.8	10.4	6.8	13.1	19.5
21	8.9	15.3	12.0	10.0	6.9	9.6	16.6	10.8	13.1	10.9	8.6	23.4
22	9.0	21.3	13.5	13.2	7.6	10.6	20.6	10.8	13.5	9.3	7.9	17.7
23	8.5	11.5	11.2	16.4	10.3	16.6	10.6	12.3	11.3	8.2	6.8	20.2
24	6.7	9.5	8.6	14.6	17.1	14.8	5.3	13.5	11.7	7.9	10.3	15.9
25	5.6	13.9	8.0	17.0	13.5	10.8	8.3	12.4	15.7	7.4	8.5	12.2
26	10.2	16.8	6.8	16.4	16.9	13.7	6.3	17.9	14.0	6.2	6.9	8.3
27	9.9	23.0	6.5	14.6	19.4	11.0	5.9	18.9	13.9	9.7	7.3	6.3
28	9.0	18.2	8.9	12.3	20.8	5.5	9.3	13.3	16.9	9.4	7.5	7.6
29	9.7		6.3	8.7	16.7	9.8	11.1	12.6	20.3	7.5	9.1	7.0
30	12.2		7.3	5.6	14.6	13.9	12.6	17.2	20.4	9.5	12.9	5.1
31	12.1		7.8		8.6		12.2	14.3		11.8		6.6
Monthly Means. 1897.	8.4	16.1	10.1	12.8	11.7	12.2	12.1	14.2	14.7	10.6	10.3	11.4
Monthly Means. 1876-97.	11.2	11.5	10.0	10.5	10.2	11.5	11.8	12.4	12.0	11.2	10.8	10.9

The Mean Hourly Velocity of the Wind for 1897 = 12.0 miles per hour.

TABLE XLII.

Computed Mean Hourly Direction and Velocity of the Wind, and North and East Components for the year 1897 and for the period 1877-97.

Hours.	1897.				1877–97.				1897.				1877–97.			
	Direction.	Velocity. (miles per hour.)	Variation. Direction.	Variation. Velocity. (miles per hour.)	Direction.	Velocity. (miles per hour.)	Variation. Direction.	Variation. Velocity. (miles per hour.)	Wind Components. N.	Wind Components. E.	Variation. N.	Variation. E.	Wind Components. N.	Wind Components. E.	Variation. N.	Variation. E.
0h ...	S 69°–52′ E	7.82	S 4°–25′	– 2.14	S 67°–34′ E	7.34	S 6°–26′	–1.91	–2.69	+ 7.34	+0.01	–2.25	–2.80	+ 6.78	–0.25	–2.11
1 ...	S 68–44 E	7.47	S 5–33	– 2.49	S 66–30 E	7.20	S 7–30	–2.05	–2.71	+ 6.96	–0.01	–2.63	–2.87	+ 6.60	–0.32	–2.29
2 ...	S 67–22 E	7.43	S 6–55	– 2.53	S 66–02 E	7.21	S 7–58	–2.04	–2.86	+ 6.86	–0.16	–2.73	–2.93	+ 6.59	–0.38	–2.30
3 ...	S 66–52 E	7.31	S 7–25	– 2.65	S 65–32 E	7.08	S 8–28	–2.17	–2.87	+ 6.72	–0.17	–2.87	–2.93	+ 6.44	–0.38	–2.45
4 ...	S 66–44 E	7.39	S 7–33	– 2.57	S 65–01 E	7.10	S 8–59	–2.15	–2.92	+ 6.79	–0.22	–2.80	–3.00	+ 6.44	–0.45	–2.45
5 ...	S 65–51 E	7.53	S 8–26	– 2.43	S 64–43 E	7.19	S 9–17	–2.06	–3.08	+ 6.87	–0.38	–2.72	–3.07	+ 6.50	–0.52	–2.39
6 ...	S 67–26 E	7.87	S 6–51	– 2.09	S 64–44 E	7.33	S 9–16	–1.92	–3.02	+ 7.27	–0.32	–2.32	–3.13	+ 6.63	–0.58	–2.26
7 ...	S 69–36 E	8.58	S 4–41	– 1.38	S 67–06 E	7.99	S 6–54	–1.26	–2.99	+ 8.04	–0.29	–1.55	–3.11	+ 7.36	–0.56	–1.53
8 ...	S 74–17 E	11.06	0–00	+ 1.10	S 73–11 E	10.06	S 0–49	+0.81	–3.00	+10.66	–0.30	+1.07	–2.91	+ 9.63	–0.36	+0.74
9 ...	S 76–23 E	12.11	N 2–06	+ 2.15	S 77–18 E	11.65	N 3–18	+2.40	–2.85	+11.77	–0.15	+2.18	–2.56	+11.36	–0.01	+2.47
10 ...	S 78–52 E	13.57	N 4–35	+ 3.61	S 80–45 E	12.76	N 6–45	+3.51	–2.62	+13.31	+0.08	+3.72	–2.05	+12.59	+0.50	+3.70
11 ...	S 82–14 E	13.45	N 7–57	+ 3.49	S 83–00 E	12.62	N 9–00	+3.37	–1.82	+13.33	+0.88	+3.74	–1.54	+12.53	+1.01	+3.64
12 ...	S 83–26 E	13.48	N 9–09	+ 3.52	S 84–08 E	12.53	N 10–08	+3.28	–1.54	+13.39	+1.16	+3.80	–1.28	+12.46	+1.27	+3.57
13 ...	S 82–16 E	13.16	N 7–59	+ 3.20	S 83–33 E	12.20	N 9–33	+2.95	–1.77	+13.04	+0.93	+3.45	–1.37	+12.12	+1.18	+3.23
14 ...	S 81–12 E	13.14	N 6–55	+ 3.18	S 82–28 E	12.28	N 8–28	+3.03	–2.01	+12.99	+0.69	+3.40	–1.61	+12.17	+0.94	+3.28
15 ...	S 79–47 E	12.69	N 5–30	+ 2.73	S 80–05 E	11.79	N 6–05	+2.54	–2.25	+12.49	+0.45	+2.90	–2.03	+11.61	+0.52	+2.72
16 ...	S 76–29 E	12.62	N 2–12	+ 2.66	S 77–20 E	11.67	N 3–20	+2.42	–2.95	+12.27	–0.25	+2.68	–2.56	+11.39	–0.01	+2.50
17 ...	S 74–56 E	11.51	N 0–39	+ 1.55	S 75–03 E	10.58	N 1–03	+1.33	–2.99	+11.11	–0.29	+1.52	–2.73	+10.22	–0.18	+1.33
18 ...	S 72–44 E	9.80	S 1–33	– 0.16	S 72–22 E	9.08	S 1–38	–0.17	–2.91	+ 9.36	–0.21	–0.23	–2.75	+ 8.65	–0.20	–0.24
19 ...	S 70–59 E	8.84	S 3–18	– 1.12	S 69–45 E	7.92	S 4–15	–1.33	–2.88	+ 8.36	–0.18	–1.23	–2.74	+ 7.43	–0.19	–1.46
20 ...	S 69–24 E	8.78	S 4–53	– 1.18	S 68–57 E	7.68	S 5–03	–1.57	–3.09	+ 8.22	–0.39	–1.37	–2.76	+ 7.17	–0.21	–1.72
21 ...	S 68–36 E	8.60	S 5–41	– 1.36	S 68–09 E	7.55	S 5–51	–1.70	–3.14	+ 8.01	–0.44	–1.58	–2.81	+ 7.01	–0.26	–1.88
22 ...	S 68–30 E	8.21	S 5–47	– 1.75	S 68–06 E	7.48	S 5–54	–1.77	–3.01	+ 7.64	–0.31	–1.95	–2.79	+ 6.94	–0.24	–1.95
23 ...	S 69–38 E	7.90	S 4–39	– 2.06	S 67–56 E	7.35	S 6–04	–1.90	–2.75	+ 7.41	–0.05	–2.18	–2.76	+ 6.81	–0.21	–2.08
For the Year.	S 74–17 E	9.96	...	...	S 74°–00′ E	9.25	...	...	–2.70	+ 9.59	...	...	–2.55	+ 8.89	...	...

TABLE XLIII.

Computed Mean Monthly Direction and Velocity of the Wind, and North and East Components, for the year 1897 and for the period 1877-97.

Months.	1897.				1877–97.				1897.				1877–97.			
	Direction.	Velocity. (miles per hour.)	Variation.		Direction.	Velocity. (miles per hour.)	Variation.		Wind Components.		Variation.		Wind Components.		Variation.	
			Direction.	Velocity. (miles per hour.)			Direction.	Velocity. (miles per hour.)	N.	E.	N.	E.	N.	E.	N.	E.
		Miles.		Miles.		Miles.		Miles.								
January	N 89°–10′ E	4.85	N 16°–33′	–5.11	S 87°–02′ E	8.49	N 13°–02′	–0.76	+0.07	+ 4.85	+2.77	–4.74	–0.44	+ 8.48	+2.11	–0.41
February... ...	S 78–43 E	13.19	N 4–26	+3.23	S 80–28 E	8.33	N 6–28	–0.92	–2.58	+12.94	+0.12	+3.35	–1.38	+ 8.21	+1.17	–0.68
March	S 67–51 E	8.76	S 6–26	–1.20	S 78–06 E	7.91	N 4–06	–1.34	–3.30	+ 8.11	–0.60	–1.48	–1.63	+ 7.74	+0.92	–1.15
April	S 66–34 E	12.25	S 7–43	+2.29	S 71–34 E	8.95	S 2–26	–0.30	–4.87	+11.24	–2.17	+1.65	–2.83	+ 8.49	–0.28	–0.40
May	S 60–07 E	10.42	S 14–10	+0.46	S 64–16 E	8.59	S 9–14	–0.66	–5.19	+ 9.03	–2.49	–0.56	–3.73	+ 7.74	–1.18	–1.15
June	S 63–22 E	11.40	S 10–55	+1.44	S 61–08 E	10.38	S 12–52	+1.13	–5.11	+10.19	–2.41	+0.60	–5.01	+ 9.09	–2.46	+0.20
July	S 69–28 E	11.18	S 4–49	+1.22	S 64–42 E	10.76	S 9–18	+1.51	–3.92	+10.47	–1.22	+0.88	–4.60	+ 9.73	–2.05	+0.84
August	S 68–46 E	13.67	S 5–31	+3.71	S 66–56 E	11.23	S 7–04	+1.98	–4.95	+12.74	–2.25	+3.15	–4.40	+10.33	–1.85	+1.44
September ...	S 73–55 E	13.82	S 0–22	+3.86	S 71–29 E	10.89	S 2–31	+1.64	–3.83	+13.28	–1.13	+3.69	–3.46	+10.33	–0.91	+1.44
October	S 83–35 E	7.87	N 9–18	–2.09	S 78–04 E	9.33	N 4–04	+0.08	–0.88	+ 7.82	+1.82	–1.77	–1.93	+ 9.13	+0.62	+0.24
November ...	S 85–05 E	7.71	N 10–48	–2.25	S 82–15 E	9.12	N 8–15	–0.13	–0.66	+ 7.68	+2.04	–1.91	–1.23	+ 9.04	+1.32	+0.15
December ...	N 67–13 E	7.33	N 38–30	–2.63	N 89–31 E	8.37	N 16–29	–0.88	+2.84	+ 6.76	+5.54	–2.83	+0.07	+ 8.37	+2.62	–0.52
For the year ...	S 74–17 E	9.96	...	...	S 74–00 E	9.25	...	...	–2.70	+ 9.59	...	...	–2.55	+ 8.89	...	...

TABLE XLIV.

Résumé of Actinometric Observations made during the year 1897.

Date.	Mean Radiation Result.	Mean Altitude.	Remarks.	Observer.
d	°	° ′		
January ... 12	9.79	88.18	Sky blue, with detached cu. Dry.	O
„ ... 18	10.10	88.40	„ blue and clear. Fine and dry.	F
February ... 25	9.79	78.34	„ blue with detached cumuli.	F
March ... 12	9.80	72.47	„ blue with detached cumuli.	F
„ ... 16	9.61	71.17	„ blue and clear.	F
„ ... 29	9.59	66. 8	„ blue and clear near the Sun.	F
April ... 19	9.46	58.35	„ pale but clear. Very dry.	O
May ... 3	9.06	54.00	„ light blue and clear.	F
„ ... 6	9.26	53. 8	„ blue and clear. Dry and windy.	F
„ ... 11	9.10	51.53	„ light blue and clear near Sun. Dry.	F
„ ... 15	9.27	50.51	„ blue and clear. Gentle breeze and dry.	F
„ ... 20	9.42	49.50	„ blue and very clear. Very dry and fine.	F
„ ... 21	9.30	49.33	„ deep blue and clear. Very dry.	F
„ ... 24	8.67	49. 5	„ pale but clear. Dry and very windy.	O
June ... 24	9.22	46.27	„ clear and blue. Fresh breeze.	F
„ ... 29	8.95	46.41	„ clear and blue. Fine. Light winds.	F
July ... 1	9.30	46.52	„ blue with detached cu. Light breeze. Dry.	F
„ ... 16	8.84	48.31	„ blue and clear with detached cu.	F
„ ... 29	8.89	51.11	„ blue and clear. Gentle breeze.	F
„ ... 30	9.21	51.18	„ light blue and clear. Cirrus to N.W. of Sun.	F
August ... 17	9.36	56.25	„ light blue and clear. Windy and dry.	F
„ ... 24	9.13	58.49	„ light blue with detached cu. Dry.	F
„ ... 31	9.67	61. 8	„ blue with small detached cu. Dry.	F
September ... 2	9.29	61.57	„ blue. Windy.	F
„ ... 7	9.64	63.46	„ light blue and generally clear. Windy.	F
„ ... 14	8.94	66.29	„ light blue with detached cu. Very squally.	F
„ ... 20	9.49	68.48	„ blue with detached cu. Gentle breeze. Dry.	F
„ ... 24	9.76	70.19	„ blue with detached cu. Light breeze.	F
October ... 11	9.97	76.46	„ blue. Fine and clear. Strong breeze.	F
„ ... 13	9.98	77.39	„ blue with detached cu. Light breeze.	F
„ ... 15	9.80	78.22	„ blue with a little light cloud. Dry.	W
„ ... 29	9.78	83.12	„ light blue. Light winds. Very dry.	F
November ... 6	10.33	85.42	„ light blue with detached cu. Very dry.	F
„ ... 9	9.92	86.20	„ light blue with detached cu. Light breeze. Dry.	F
„ ... 19	10.11	88.13	„ blue with detached cu. Very dry. Windy.	F
December ... 9	10.03	86.32	„ generally blue and clear. Light breeze. Dry.	F
„ ... 10	9.61	86.28	„ bright blue. Fresh breeze.	W
„ ... 14	9.95	86.12	„ blue with detached cu. Dry. Gentle breeze.	F
„ ... 17	9.78	86.17	„ blue with detached cu. Gentle breeze.	F
Means.	9.52	66.45		

TABLE XLV.

Lightning and Thunder in 1897.

Month.	Days.	Hour, &c.	Phenomena.	Approximate Direction from whence seen.	Remarks.
January ...	1	In evening and night	Lightning ...	S.E., S., S.W. and W.	Frequent vivid.
" ...	8	13h 27m to 15h 10m	Thunder ...	S.S.W.	Frequent from 14h 15m to 14h 35m.
" ...	12	13h 11m to 15h ...	" ...	S.E.	
" ...	13	15h 19m to 17h 55m	" ...	W.S.W.	Distant.
	"	18h 55m to 20h ...	Lightning and thunder ...	S.W. and S.S.W.	Frequent vivid lightning and distant thunder.
	"	21h and at night ...	" ...	S.	Frequent lightning and loud thunder.
" ...	14	12h 01m to 12h 24m	Thunder ...	W.S.W., S.W. and S.	
" ...	16	Late in evening ...	Lightning ...	S.	Several flashes.
" ...	17	12h to 16h ...	Thunder ...	S.W., S.S.W. to S.	Distant.
	"	16h to 17h 15m ...	" ...	S.S.W.	Nearer and nearly overhead.
" ...	18	16h 13m to 16h 30m	" ...	W.S.W.	
" ...	19	12h 23m to 14h 20m	" ...	S.W. to S. and S.S.W.	Frequent thunder from Srd. to nearly overhead.
" ...	21	14h 15m to 15h 15m	" ...	S.W. to S. and S.S.W.	At intervals.
" ...	22	15h 18m to 15h 35m	" ...	S.S.W.	Distant.
February...	20	7h 50m to 8h 50m	" ...	S.E.	Distant.
	"	14h 45m	" ...	E.S.E.	
	"	15h 40m to late in afternoon ...	" ...	N., N.W. and S.E.	
	"	Till late in evening	Lightning and thunder ...	N.	Distant.
" ...	27	4h to 5h	Lightning ...	Eastern hor.	Occasional.
March ...	2	17h 50m to 18h 30m	Thunder ...	S.W. and S.	Distant.
" ...	3 & 4	Evening, night and morning ...	Lightning ...	S.W., N.W. and N.	Sheet.
" ...	4	15h 22m to 15h 31m	Thunder ...	S.S.W.	
	"	In evening... ...	Lightning ...	E. and N.	
April ...	27	18h 30m to 22h ...	Lightning and thunder ...	S.W., overhead, N.E., E. and S.	Constant thunder at times with broad vivid lightning. House struck by "a ball of fire" at Beau Bassin.
December...	3	19h 55m to 20h 10m	Lightning ...	W.S.W.	Several flashes.
" ...	6	0h to 2h	" ...	W., N. and S.	Broad vivid flashes at times.
	"	In evening... ..	" ...	S.W.	Several flashes.
" ...	18	22h 20m	" ...	W.S.W.	One flash.
" ...	24	22h 15m to 22h 30m	Lightning and thunder ...	N.	Distant.

TABLE XLVI.

Means and Extremes of the Principal Meterological Elements.

Elements.	1897.	As compared with.	For the period.
Mean Atmospheric Pressure (red. to sea-level) ...	30.066 inches	30.077 ins.	1875—97
Highest „ ...	30.400 „ Sept. 7 ...	30.468 „ June 20/77 ...	„
Lowest „ ...	28.922 „ Dec. 5 ...	27.956 „ April 29/92 ...	„
From Therm. Tabulations.			
Mean Temperature of the Air ...	74°.2	73°.5	1891—97
Highest „ „ ...	91.9 Jan. 12 & 17 ...	93.0 Dec. 30/93	„
Lowest „ „ ...	56.5 May 21	51.0 June 10/94	„
Mean Temperature of Evaporation..	68.6	68.5	„
Highest „ „ ...	81.0 Jan. 16 & Dec. 28	81.1 March 4/92	„
Lowest „ „ ...	52.9 May 21	48.9 June 10/94	„
Mean Dew-Point	64.5	64.8	„
Highest „	79.1 Jan. 14	79.1 Jan. 14/97	„
Lowest „	49.2 Sept. 5	46.7 June 10/94	„
Mean Vapour-Tension	0.616 inch	0.622 inch.	„
Highest „	0.990 „ Jan. 14 ...	0.990 „ Jan. 14/97 ...	„
Lowest „	0.349 „ Sept. 5 ...	0.321 „ June 10/94 ...	„
Mean Relative Humidity	72.0 P.C.	74.6 P.C.	„
Highest „	96.2 „ Jan. 14 ...	96.9 „ Feb. 20/96	„
Lowest „	35.0 „ May 20 ...	34.0 „ Nov. 26/96	„
Mean hourly Velocity of the Wind ...	12.0 miles	11.2 miles	1876—97
Maximum „ ...	71.0 „ Dec. 5 ...	103.3 „ April 29/92 ...	„
Rainfall	27.26 inches	48.63 inches	1875—97
No. of days on which rain fell	168	202	„
Greatest fall in 24 hours	2.05 inches, Dec. 6 ...	17.34 inches, Feb. 20/96 ...	„
No. of days of Thunder and Lightning..	21	32	„
Mean Amount of Ozone...	4.2	4.4	1887—97
Greatest „	9.0 Feb. 3 & Oct. 2 ...	10.0 Sept. 3/87, June 23 & 29/89 & June 3/96.	„
Least „	0.0, 17 times	0.0 occasionally	„
Total duration of Sunshine during the year	2824.6 hours	2769.1 hours	„
Mean proportion for the year	0.642 hour	0.630 hour	„

TABLE XLVII.

Five Day Means, 1897.

No. of Five Day Period.	Barometric Pressure, not reduced to sea-level.	Temperature of the Air from Thermogram Tabulations.	In a Screen on Lawn. Maximum Temperature.	In a Screen on Lawn. Minimum Temperature.	Vapour Tension.*	Relative Humidity.*	Wind. North Component.	Wind. East Component.	Wind. Velocity. (miles per hour.)	Upper Clouds. (0—10)	Lower Clouds. (0—10)	Amount of Ozone. (0—10)	Rainfall. †
	ins.	°	°	°	ins.	P.C.	Miles.	Miles.	Miles.				ins.
1	29.825	79.8	90.2	72.9	.768	77.6	+2.80	+ 9.23	9.9	1.1	5.6	3.0	1.14
2	29.763	79.7	88.8	71.9	.769	79.8	+2.64	+ 2.90	6.6	1.6	5.6	2.0	0.81
3	29.719	80.5	88.1	73.6	.836	83.6	+4.64	− 0.96	7.5	2.3	5.6	2.0	1.32
4	29.792	81.3	90.8	73.4	.805	77.1	−0.02	+ 5.57	7.8	2.4	4.6	1.4	0.07
5	29.705	80.0	90.0	73.2	.773	77.5	−2.03	+ 5.89	7.7	2.1	6.1	4.7	1.75
6	29.619	76.9	86.6	69.1	.679	74.0	−6.32	+ 5.43	10.2	0.3	5.1	5.0	1.26
7	29.837	76.9	86.1	70.4	.658	71.9	−4.99	+13.28	14.6	1.9	5.7	5.6	0.70
8	29.785	78.1	86.6	73.4	.755	78.2	−3.82	+16.00	16.7	2.8	5.5	6.0	0.30
9	29.692	79.9	89.8	73.3	.781	78.5	−1.39	+12.04	13.0	1.1	4.5	5.4	0.35
10	29.653	79.3	88.6	75.8	.784	77.2	−4.08	+20.13	20.8	0.8	7.0	4.2	0.35
11	29.621	79.3	87.8	73.5	.794	79.3	+4.01	+ 3.82	13.1	0.6	6.3	3.4	0.75
12	29.751	77.8	86.1	71.8	.723	75.2	−5.96	+15.44	17.3	1.0	6.1	4.4	0.72
13	29.722	79.5	88.8	74.0	.771	78.3	−0.75	+10.64	11.2	1.2	5.6	4.8	0.03
14	29.720	77.3	89.3	69.6	.714	76.9	−4.23	+ 6.52	8.7	0.8	5.9	4.3	0.43
15	29.876	76.8	89.2	67.4	.627	69.7	−3.31	+ 9.12	10.0	0.9	2.8	1.6	0.04
16	29.820	77.3	88.3	70.6	.670	73.0	−4.77	+11.60	12.8	2.6	3.9	4.0	0.02
17	29.711	77.2	89.1	67.7	.651	69.8	−4.39	+ 5.58	9.6	2.8	3.4	2.9	0.15
18	29.754	76.2	89.8	67.1	.679	75.7	−2.53	+ 4.05	7.4	0.2	5.4	4.6	0.18
19	29.817	75.8	89.3	66.2	.605	68.5	−4.79	+10.10	11.4	0.9	4.0	3.3	0.03
20	29.878	74.9	87.2	68.0	.562	64.0	−7.70	+16.39	18.3	0.0	4.1	5.3	0.19
21	29.835	74.2	87.4	65.6	.591	71.2	−4.39	+ 9.79	11.5	0.0	4.9	6.3	0.29
22	29.882	73.0	87.4	62.3	.547	68.6	−5.07	+ 8.28	10.0	0.1	3.5	3.8	0.00
23	29.937	75.1	86.5	68.7	.684	79.1	−6.19	+12.60	14.2	1.6	4.7	5.4	0.55
24	29.851	75.5	85.4	70.7	.725	81.1	−1.09	+10.29	11.5	1.8	6.2	6.3	0.69
25	29.850	71.8	82.6	63.2	.583	74.4	−4.89	+ 5.21	9.2	0.9	3.7	4.5	0.53

* In a large open room. † Five day sums.

TABLE XLVII.—*Continued.*

Five Day Means, 1897.

No. of Five Day Period.	Barometric Pressure, not reduced to sea-level.	Temperature of the Air from Thermogram Tabulations.	In a Screen on Lawn. Maximum Temperature.	In a Screen on Lawn. Minimum Temperature.	Vapour Tension.*	Relative Humidity.*	Wind. North Component.	Wind. East Component.	Wind. Velocity. (miles per hour.)	Upper Clouds. (0—10)	Lower Clouds. (0—10)	Amount of Ozone. (0—10)	Rainfall. †
	ins.	°	°	°	ins.	P.C.	Miles.	Miles.	Miles.				ins.
26	29.919	70.6	81.9	61.8	.482	64.6	−6.89	+ 9.98	12.5	0.1	4.0	5.1	0.00
27	29.938	70.3	83.2	60.3	.546	73.7	−4.55	+ 8.54	10.9	0.0	3.5	5.6	0.06
28	29.910	73.0	86.6	63.6	.631	77.8	−2.22	+ 7.01	9.4	0.3	3.6	1.1	0.04
29	29 896	71.4	85.3	60.4	.552	70.5	−5.47	+ 8.03	11.1	2.5	2.0	1.5	0.00
30	29.952	72.3	82.0	67.2	.530	66.6	−7.97	+15.62	17.7	2.5	3.5	1.8	0.03
31	29.902	72.8	85.1	65.0	.587	72.0	−5.08	+ 9.13	11.3	3.4	3.0	3.1	0.00
32	29.886	70.3	81.0	63.3	.527	70.1	−5.61	+10.59	12.4	0.2	4.8	4.2	0.19
33	29.887	72.4	82.4	67.1	.601	75.2	−4.72	+ 9.82	11 7	0.0	6.2	3.2	0.98
34	30.054	66.9	77.0	60.7	.488	73.0	−6.57	+10.96	13.3	0.1	6.2	2.7	0.22
35	29.999	69.2	79.7	62.3	.516	70.7	−5.82	+11.33	13.1	0.4	4.1	4.2	0.46
36	29.932	71.2	81.1	64.6	.605	78.2	−1.73	+ 8.47	10.2	0.7	5.6	4.7	0.66
37	30.039	68.5	78.8	60.4	.473	66.4	−6.87	+11.95	14.2	0.2	4.4	5.8	0.03
38	30.039	68.9	79.2	63.1	.509	69.6	−3.93	+13.26	14.2	0.0	6.0	6.5	0.32
39	29.969	67.8	78.9	59.4	.495	70.7	−5.00	+10.42	12.0	0.6	4.9	5.5	0.16
40	30.001	69.4	80.7	62.1	.544	76.4	−4.01	+10.28	11.6	0.4	4.0	4.8	0.35
41	29.953	70.6	81.8	63.1	.493	67.1	−2.46	+10.90	12.7	0.8	4.5	2.3	0.00
42	29.942	69.9	82.2	61.2	.588	80.2	−1.06	+ 6.22	8.2	0.5	5.2	5.2	0.64
43	29 938	68.7	81.5	58.1	.506	71.6	−3.52	+ 7.72	9.5	0.8	2.7	4.1	0.07
44	30.056	69.8	79.9	64.3	.524	71.9	−4.98	+15.62	16.8	1.0	5.8	5.3	0.31
45	30.040	69.8	79.8	63.7	.547	74.2	−6.82	+14.67	16.4	0.5	5.4	6.0	0.40
46	30.012	69.8	81.5	62.3	.524	72.1	−6.69	+11.70	14.0	0.3	5.0	5.4	0.28
47	30.022	69.7	82.1	62.3	.517	71.1	−2.51	+11.58	12.3	0.0	6.2	5.2	0.32
48	29.999	69.9	81.4	63.0	.523	73.9	−4.42	+14.29	15.2	0.0	5.7	5.0	0.16
49	29.987	69.8	82.0	61.3	.509	69.9	−5.30	+11.98	13.5	0.0	6.2	6.0	0.29
50	30.019	68.4	79.7	60.2	.444	63.7	−7.33	+10.20	14.1	0.0	7.2	4.4	0.00

* In a large open room. † Five day sums.

TABLE XLVII.—*Concluded.*

Five Day Means, 1897.

No. of Five Day Period.	Barometric Pressure, not reduced to sea-level.	Temperature of the Air from Thermogram Tabulations.	In a Screen on Lawn. Maximum Temperature.	In a Screen on Lawn. Minimum Temperature.	Vapour Tension.*	Relative Humidity.*	Wind. North Component.	Wind. East Component.	Wind. Velocity. (miles per hour.)	Upper Clouds. (0—10)	Lower Clouds. (0—10)	Amount of Ozone. (0—10)	Rainfall. †
	ins.	°	°	°	ins.	P. C.	Miles.	Miles.	Miles.				ins.
51	30.041	69.7	81.4	62.3	.497	69.3	−1.81	+13.91	14.6	0.0	5.4	6.2	0.51
52	30.008	71.4	82.6	65.5	.565	74.5	−2.40	+16.24	16.8	0.0	6.5	6.6	0.37
53	29.958	71.4	83.8	63.2	.521	69.6	−2.41	+12.25	12.9	0.0	4.0	5.6	0.42
54	29.965	70.3	82.8	60.7	.494	69.6	−3.34	+12.33	13.3	0.0	4.6	5.4	0.24
55	30.113	68.5	81.1	61.9	.485	70.2	−5.87	+17.53	18.9	0.0	7.8	5.5	0.36
56	30.034	70.1	81.2	63.0	.565	77.6	−2.82	+ 9.51	11.1	0.0	7.7	6.1	0.45
57	29.986	69.8	82.3	60.1	.518	71.5	−4.64	+11.50	12.8	0.4	5.3	4.7	0.28
58	29.946	71.0	83.7	61.0	.527	71.7	−0.21	+ 9.46	10.1	0.7	5.1	4.6	0.33
59	29.850	71.9	85.0	60.0	.562	75.6	+2.29	+ 1.25	9.0	2.1	4.5	5.2	0.00
60	29.896	75.5	87.4	65.5	.643	77.0	+2.51	+ 5.28	7.9	1.3	6.1	3.6	0.10
61	29.906	74.6	87.5	61.2	.564	69.4	−0.67	+ 6.30	9.6	0.8	4.8	3.1	0.00
62	29.915	76.5	88.8	68.0	.659	74.6	+0.27	+ 8.51	9.7	0.2	5.5	3.8	0.41
63	29.848	76.4	89.2	65.0	.624	72.4	+0.58	+ 4.09	9.4	0.1	5.7	3.9	0.10
64	29.846	77.1	89.3	67.6	.628	71.2	−0.94	+11.42	11.9	0.2	5.8	3.3	0.03
65	29.893	77.2	88.6	70.1	.604	66.6	+0.07	+13.28	13.7	0.8	5.9	4.1	0.16
66	29.788	77.4	89.7	67.4	.665	73.6	−2.08	+ 4.47	8.1	0.2	5.6	3.7	0.14
67	29.783	78.2	90.4	68.0	.663	71.8	−2.56	+ 4.34	9.4	0.0	5.5	3.6	0.28
68	29.691	78.7	88.5	73.0	.771	79.5	+2.03	+ 9.63	17.3	0.3	7.6	4.4	2.19
69	29.814	79.7	90.1	70.6	.712	75.0	+2.63	+ 4.58	7.1	0.1	4.5	1.7	0.18
70	29.794	79.2	89.2	70.5	.723	74.8	+1.45	+ 7.31	8.2	0.5	5.4	0.3	0.22
71	29.775	79.8	89.6	72.7	.742	74.1	+0.02	+14.53	14.8	1.4	5.3	1.7	0.51
72	29.698	79.3	84.2	75.5	.814	82.5	+8.76	+ 6.30	14.9	0.7	8.2	3.1	1.15
73	29.775	82.0	89.6	74.4	.841	80.2	+3.03	− 2.35	6.5	0.8	5.1	0.9	0.21

* In a large open room. † Five day sums.

TABLE XLVIII.

Observations of Luminous Meteors in the year 1897.

No. of Observation.	Mauritius Civil Time.	Right Ascension. From.	Right Ascension. To.	Declination. From.	Declination. To.	Apparent Size of Meteor in Star Magnitudes.	Duration of Meteor.	Colour of Meteor.	Appearance and Duration of Train.	Remarks.	Observer.
	d h m s	h m	h m	°	°		secs.				
1	Nov. 15.1.1.35	4.38	6.30	−42.	−48	1	0.5	Yellow	Broken		C
2	„ 2. 5. 8	9.40	9.30	+ 8.½	−15°	3	0.4	Bluish-white	None		W
3	„ 2.46. 0	10.18	7.20	−41	−68	1	2.0	„	Brilliant for 1 sec.	Path slightly curved.	W
4	„ 3. 1. 4	5.20	3. 0	−38	−55	2	0.8	„	None		O
5	„ 3.44.30	12. 0	12.24	+ 8	−16	1	1.0	„	Slight for 0.5 seconds		W&O
6	„ 3.47.14	9.22	12. 0	− 8	−10½	1	1.0	„	Slight		C&O
7	„ 4. 0.49	9.40	9.10	+ 2½	−10	2	1.5	„	Slight	Path slightly curved.	O
8	„ 4. 8.16	10. 0	11. 0	+10	+ 5	3	1.0	„	None		O

The initials C. W. and O. are those of Messrs Claxton, Walter and Olivier respectively.

TABLE XLIX.

Mean Monthly Maximum and Minimum Temperature at five Stations in the Interior of the Island during the year 1897.

Districts.	Pamplemousses.		Moka.		Plaines Wilhems.							
Stations.	Botanical Gardens.		Lynnwood.		The Manse, Beau Bassin.				Clairfond, Phœnix.		Marton Vacoas.	
Height above sea-level.	225 feet.		1,100 feet.		?				1,325 feet.		1,400 feet.	
Observer.	W. Scott.		Hon. H. Stein.		Revd. G. Mc. Irvine.				J. J. Gibson.		F. Nash.	
					Wall Screen		Verandah.					
Months.	Mean Max.	Mean Min.	Mean Max.	Mean Min.	Mean Max.	Mean Min.	Mean Max.	Mean Min.	Mean Max.	Mean Min.	Mean Max.	Mean Min.
	°	°	°	°	°	°	°	°	°	°	°	°
January	88.2	72.7	82.9	71.0	...	...	...	...	*85.2	*71.2	82.5	70.3
February	85.8	72.8	80.9	70.9	...	...	...	...	81.5	71.0	80.2	69.8
March	88.0	69.8	80.1	68.4	...	...	...	...	82.7	68.6	81.7	67.7
April	85.0	67.2	76.8	65.6	83.6	63.8	...	...	77.9	66.3	78.1	65.1
May	81.5	62.8	73.3	61.7	81.2	60.9	82.5	61.2	74.5	62.1	74.5	62.1
June	79.8	63.5	71.3	61.5	74.4	61.5	77.1	62.0	72.0	61.1	74.5	61.1
July	78.7	61.3	70.6	59.8	74.1	59.0	76.6	60.0	72.0	59.6	73.5	59.5
August	78.6	62.3	71.1	60.2	73.5	60.1	76.4	60.7	72.6	60.3	73.5	60.0
September	80.4	62.2	72.7	59.6	74.8	59.5	77.5	60.0	74.5	60.2	73.7	59.2
October	83.0	62.2	75.6	60.9	78.0	60.5	79.2	61.3	77.4	63.7	74.5	60.1
November	88.7	68.1	81.0	66.3	83.2	65.4	83.6	66.0	83.9	67.2	80.3	65.0
December	88.0	72.8	82.0	70.9	82.5	70.6	82.7	70.9	83.0	71.0	80 8	69.0
Means	83.8	66.5	76.5	64.7	...	...	...	...	78.1	65.2	77.3	64.1
Approximate Mean Temperature ...	75.1		70.6		...		...		71.6		70.7	

* Mean for 15 days.

TABLE L.

Absolute Maximum and Minimum Temperature at the same five Stations during the year 1897.

Districts.	Pamplemousses.		Moka.		Plaines Wilhems.							
	Botanical Gardens. (W. Scott.)		Lynnwood (Hon. H. Stein.)		The Manse, Beau Bassin. Revd. G. Mc. Irvine.				Clairfond, Phœnix (J. J. Gibson.)		Marton, Vacoas (F. Nash.)	
					Wall Screen.		Verandah.					
Months.	Abs. Max.	Abs. Min.	Abs. Max.	Abs. Min.	Abs. Max.	Abs. Min.	Abs. Max.	Abs. Min.	Abs. Max.	Abs. Min.	Abs. Max.	Abs. Min.
	°	°	°	°	°	°	°	°	°	°	°	°
January	92.7	67.6	86	67	...	...	...	...	*88.4	*67.5	85	67
February... ...	89.0	68.7	85	68	...	...	...	...	88.5	68.0	85	67
March	90.0	64.7	83	66	...	...	...	...	87.3	61.7	85	64
April	90.0	60.9	80	61	89.2	59.0	...	...	83.0	63.5	82	61
May	85.0	54.7	79	56	85.3	54.9	87.7	55.7	81.2	58.6	80	57
June	84.7	56.6	75	56	82.0	52.7	82.3	54.2	77.3	56.0	79	55
July	81.8	54.5	75	56	80.4	53.5	80.8	54.9	77.5	56.0	79	55
August	81.0	56.7	73	55	80.1	54.5	80.8	55.7	76.4	56.7	78.5	57
September ...	83.0	58.8	75	56	79.4	51.8	82.5	53.1	79.3	55.0	78	54.5
October	88.8	57.5	80	55	84.3	54.4	85.2	55.7	84.4	58.3	82	55
November ...	92.2	61.6	84	61	88.2	58.6	86.6	60.0	86.6	61.8	84	62
December ...	91.2	68.9	86	67	87.4	65.9	85.9	66.7	89.1	68.3	86	61

* From 15 days' observations.

TABLE LI.

Hygrometric Observations at the Royal Botanical Gardens, Pamplemousses, during the year 1897.

Months.	Dry Bulb.		Wet Bulb.		Dew Point.			Vapour Tension.			Relative Humidity.		
	9 hours.	15 hours.	9 hours.	15 hours.	9 hours.	15 hours.	Means.	9 hours.	15 hours.	Means.	9 hours.	15 hours.	Means.
	°	°	°	°	°	°	°	in.	in.	in.	P. C.	P. C.	P. C.
January	82.8	83.7	77.3	77.2	73.6	72.9	73.2	0.828	0.808	0.818	74.0	70.0	72.0
February	80.6	83.4	76.5	77.1	73.7	72.9	73.3	0.833	0.808	0.820	80.1	70.8	75.4
March	81.1	84.0	74.9	75.8	70.7	70.4	70.5	0.751	0.743	0.747	71.2	63.2	67.2
April	77.0	81.3	71.7	72.7	68.0	66.9	67.4	0.685	0.660	0.672	73.8	61.9	67.8
May	74.4	77.6	68.4	69.2	64.0	63.3	63.6	0.597	0.583	0.590	70.0	62.0	66.0
June	72.7	74.9	67.6	68.4	63.8	63.6	63.7	0.593	0.590	0.591	74.2	68.0	71.1
July	71.3	75.0	66.4	67.5	62.7	62.1	62.4	0.570	0.559	0.564	73.8	64.0	68.9
August	71.9	74.2	67.1	67.9	63.5	63.3	63.4	0.586	0.582	0.584	74.0	68.8	71.4
September	73.3	76.4	67.2	67.9	62.7	61.9	62.3	0.571	0.554	0.562	69.6	61.4	65.5
October	77.0	78.2	69.9	70.2	64.9	64.6	64.7	0.616	0.610	0.613	66.6	63.2	64.9
November	82.3	84.3	73.6	74.0	67.8	67.2	67.5	0.681	0.668	0.674	61.5	56.1	58.8
December	82.5	85.2	76.5	76.7	72.5	71.2	71.8	0.798	0.765	0.781	72.0	62.5	67.2
Means	77.2	79.8	71.4	72.0	67.3	66.7	67.0	0.676	0.661	0.668	71.7	64.3	68.0

TABLE LII.

Thermometric Observations made at the Nursery Gardens, Curepipe, during the year 1897.

Altitude 1,840 *feet.*—F. Bijoux, *Observer.*

Months.	Mean Maximum.	Mean Minimum.	Approximate mean Temperature.	Absolute Maximum.	Date.	Absolute Minimum.	Date.	Mean Minimum on grass*	Highest on grass.*	Date.	Lowest on grass.*	Date.
	°	°	°	°		°		°	°		°	
January	78.4	68.1	73.2	84.0	17	63.0	25	65.5	70.0	14	60.2	25
February	74.8	68.5	71.6	80.5	12	63.6	1	66.6	69.8	14	61.0	1
March	76.8	66.1	71.4	80.5	4	62.0	29	62.1	68.5	4	57.5	29
April	72.7	63.6	68.1	77.4	1	59.4	17	59.9	64.6	24 & 27	53.6	17
May	70.6	60.2	65.4	77.6	1	49.4	21	55.2	64.0	19	44.2	21
June	68.5	59.1	63.8	75.0	1	53.5	25	54.7	61.0	11	46.0	25
July	69.0	56.9	62.9	75.2	24	53.0	10, 13, 27 & 28	51.1	57.0	29	45.5	13
August †	67.7	58.4	63.0	76.2	2	47.2	2	54.8	59.4	13	45.2	2
September † ...	69.5	57.1	63.3	73.2	20	53.6	6 & 7	53.3	57.3	16	49.3	6 & 27
October	‡ 72.2	58.0	65.1	77.4	30	53.2	20	§ 54.2	61.6	25	47.6	20
November	77.1	63.3	70.2	79.6	25	59.0	8	60.5	65.6	4	54.1	8
December	78.5	67.4	72.9	82.2	18	60.2	8	65.5	70.0	28	58.1	8
Means	73.0	62.2	67.6	78.2	...	56.4	...	58.6	64.1	...	51.9	...

* During the night. † Observations doubtful. ‡ Mean for 13 days. § Mean for 7 days.

TABLE LIII.

Hygrometric Observations taken at the Nursery Gardens, Curepipe, during the year 1897.

Months.	Dry Bulb.			Wet Bulb.			Dew Point.			Vapour Tension.			Relative Humidity.		
	6 hours.	15 hours.	Means.	6 hours.	15 hours.	Means.	6 hours.	15 hours.	Means.	6 hours.	15 hours.	Means.	6 hours.	15 hours.	Means.
	°	°	°	°	°	°	°	°	°	in.	in.	in.	P.C.	P.C.	P.C.
January	69.0	75.0	72.0	68.6	71.6	70.1	68.3	69.1	68.7	0.690	0.715	0.702	97.5	82.9	90.2
February ...	68.9	73.1	71.0	68.3	71.0	69.6	67.8	69.4	68.6	0.680	0.720	0.700	96.4	88.5	92.4
March	66.9	74.6	70.7	66.4	69.8	68.1	66.0	66.3	66.1	0.639	0.647	0.643	97.0	75.6	86.3
April	64.5	71.1	67.8	63.9	67.2	65.5	63.4	64.3	63.8	0.584	0.602	0.593	96.4	78.5	87.4
May	61.9	68.8	65.3	61.3	64.5	62.9	60.9	61.2	61.0	0.532	0.539	0.535	96.4	76.5	86.4
June	60.3	65.6	62.9	59.7	63.5	61.6	59.2	61.8	60.5	0.504	0.553	0.528	96.4	87.4	91.9
July	58.8	66.7	62.7	58.1	64.5	61.3	57.5	62.7	60.1	0.473	0.571	0.522	95.9	87.5	91.7
August	59.1	64.6	61.8	58.9	63.5	61.2	58.7	62.6	60.6	0.495	0.568	0.531	98.8	93.4	96.1
September ...	58.5	66.1	62.3	57.6	61.9	59.7	56.8	58.5	57.6	0.462	0.492	0.477	94.2	77.1	85.6
October	† 59.1	‡ 68.5	63.8	† 58.8	‡ 64.0	61.4	† 58.5	‡ 60.4	59.4	† 0.492	‡ 0.526	0.509	† 98.2	‡ 75.5	86.8
November ...	64.6	74.4	69.5	64.1	68.7	66.4	63.7	64.5	64.1	0.590	0.608	0.599	97.0	71.2	84.1
December ...	68.4	75.9	72.1	68.2	71.8	70.0	68.0	68.8	68.4	0.685	0.707	0.696	98.8	79.4	89.1
Means	63.3	70.4	66.8	62.8	66.8	64.8	62.4	64.1	63.2	0.569	0.604	0.586	96.9	81.1	89.0

† Mean of 20 days. ‡ Mean of 12 days.

TABLE LIV.

Observations of Solar Radiation and Ozone at the Nursery Gardens, Curepipe, during the year 1897.

Months.	Maximum Temperature in the Sun's Rays. (Neg. & Zambra, No. 65,011.)					Amount of Solar Radiation.					Amount of Ozone. Scale 0 to 10.		
	Means.	Highest.	Date.	Lowest.	Date.	Means.	Highest.	Date.	Lowest.	Date.	Means.	Max.	Min.
	°	°		°		°	°		°				
January	143.1	157.5	18	97.4	14	64.7	77.2	29	23.4	14	3.9	6	2
February	132.9	154.8	14	99.0	9	58.1	72.0	1	25.2	9	5.3	7	3
March	143.9	148.5	6	134.5	2	67.1	74.3	6	59.3	2	4.7	6	3
April	134.9	146.5	14	110.2	24	62.2	70.3	14	39.8	24	5.7	7	4
May	128.1	139.6	1	110.5	17	57.5	64.5	11	42.3	17	5.8	7	4
June	125.1	138.5	4	112.5	16	56.7	70.3	4	45.8	19	6.3	8	5
July	127.2	141.5	26	97.5	2	58.2	69.3	26	34.7	2	5.5	7	4
August	129.4	146.2	2	102.6	28	61.8	70.9	9	36.1	28	6.4	8	6
September	132.3	142.2	21	101.6	28	62.8	72.2	1	36.8	28	5.4	7	4
October	† 142.2	156.4	27	133.0	10	† 70.0	79.6	27	64.2	20	‡ 5.5	7	4
November	144.3	151.5	13	131.0	8	67.1	73.0	13	56.0	8	5.1	6	3
December	141.0	155.5	17	98.0	22	62.5	75.4	8	26.6	22	4.6	6	2
Means	135.4	148.2	...	110.6	...	62.4	72.4	...	40.8	...	5.3	6.8	3.7

† Mean for 12 days. ‡ Mean for 11 days.

TABLE LV.

Approximate Altitudes of Rainfall Stations above the sea-level and the names of the Observers.

Stations.	Observers.	Altitudes.
Rivière du Rempart.		Feet.
Mon Loisir	H. Rouillard ...	?
Schœnfeld	A. de Rosnay ...	?
Labourdonnais	A. Wiehé	290
Antoinette	G. Martin... ...	640
Mon Songe	L. Lagesse ...	620
Pamplemousses.		
St. André	G. Harel	175
Solitude	G. Harel	90
Mon Rocher	E. Maurel	270
Beau Plan	J. de St. Romain...	195
Botanical Gardens	W. Scott & J. Vankeirsbilck	225
The Observatory	T. F. Claxton ...	179
The Mount	G. Antelme ...	325
Constance	L. Lagesse ...	620
La Grande Rosalie ...	C. Montocchio ...	643
California	C. Montocchio ...	850
Australia	L. Lagesse ...	?
Solitude, Montagne Longue	Jules Joly... ...	430
Port-Louis.		
St. George Street	J. Brodie	?
Flacq.		
Beau Bois (Dupin) ...	V. Dupin	?
Constance (d'Arifat) ...	A. Dalais	?
Rich-Fund	P. Eynaud ...	?
Union (Régnard)	A. Régnard ...	600
St. Julien (Estate) ...	S. R. Cochran ...	?
Bel Etang	V. Lagesse ...	?
Sans Souci	E. d'Argent ...	910
Olivia	W. Brodie ...	?
L'Etoile	A. de Villaine ...	790
Moka.		
The Bower	C. F. Shand ...	1080
Val Ory	G. Régnard ...	?
Gentilly	H. Finniss ...	1150
Lynnwood	Hon. H. Stein ...	1100
Bon Air	F. B. de Chalin ...	1050
Alma (Verdun)	Hon. H. Léclézio...	1500
Le Réduit Gardens ...	W. Kennedy ...	1000
Minissy	L. Hardy	1150

Stations.	Observers.	Altitudes.
Plaines Wilhems.		Feet.
The Manse (Beau Bassin)	Rev. G. Mc. Irvine ...	?
Villa Fantaisie („)	H. Ducray	?
Bagatelle	R. Desvaux	1300
Trianon	E. Lagesse	950
Salency (Rose Hill) ...	A. Boulé...	923
Phœnix (Estate) ...	O. Moizeau	1300
Phœnix (Clairfond) ...	J. J. Gibson	1325
Réunion (Vacoas) ...	Hon. G. Robinson ...	1420
Marton („) ...	F. Nash	1400
Curepipe Gardens	W. Scott & J. Vankeirsbilck	1840
Villa-le-Bain	Th. V. Latour	1840
Henrietta (Vacoas) ...	C. F. Shand	1549
The Glen („) ...	C. F. Shand	1580
La Marie („) ...	C. F. Shand	1715
Tamarind Falls (Vacoas)	C. F. Shand	1629
Mare-aux-Vacoas ...	E. Brine, C.E.	1850
Black River.		
Caselà	C. H. Kœnig	250
Wolmar...	C. H. Kœnig	200
Tamarin...	C. H. Kœnig	150
Chamarel St. Denis..	C. H. Kœnig	?
Chamarel Yard ...	C. H. Kœnig	850
Grand Port.		
Ferney	A. Ozoux	20
Cluny	J. H. Desplaces... ...	1000
Riche-en-Eau	E. de Rochecouste ...	800
Astrœa	A. Daniel	700
Beau Vallon	A. de Rochecouste ...	60
Gros Bois	Hon. H. Stein	500
Eau Bleue	P. G. Labat	?
Savanne.		
Colmar	Sir V. Naz, K.C.M.G. ...	400
Beau Bois	A. Pitot	?
Bénarès (Résidence) ...	Sir V. Naz, K.C.M.G. ...	300
Bénarès (Sugar House)	Sir V. Naz, K.C.M.G. ...	200
Ste. Marie	Allam & H. C. Mamoojee	?
Beau Champ	Allam & H. C. Mamoojee	60
St. Aubin	A. Pitot	300
Bel Ombre	Allam & H. C. Mamoojee	50
Union-Bel Air	Th. V. Latour	90
Terracine	O. Pilot	50

TABLE

Monthly Rainfall at Various Stations in

Districts and Stations.	January.		February.		March.		April.		May.	
	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.
Rivière du Rempart.										
Mon Loisir	9.51	8	4.53	18	1.26	6	3.64	17	0.69	8
Schœnfeld	7.12	13	4.43	16	1.31	6	2.86	17	1.21	9
Labourdonnais	7.28	11	6.05	13	1.02	3	4.72	10	0.63	5
Antoinette	9.81	15	6.43	14	0.90	6	3.29	13	1.55	9
Mon Songe	9.24	14	6.88	15	1.28	9	3.42	14	1.58	9
Pamplemousses.										
St. André...	7.03	9	3.44	15	0.84	6	1.66	6	0.38	3
Solitude	4.71	10	2.70	16	0.92	6	1.13	7	0.50	1
Mon Rocher	8.32	13	3.76	11	0.81	7	2.68	11	0.57	5
Beau Plan	6.63	12	3.54	11	0.67	6	1.95	10	0.38	3
Botanical Gardens	7.36	15	2.79	10	0.53	5	1.93	11	0.71	9
The Observatory	6.35	17	3.14	19	0.88	10	1.75	14	0.66	6
The Mount	8.35	14	4.59	14	0.79	7	2.96	15	0.75	7
Constance...	8.52	14	6.09	13	1.06	6	3.25	16	1.54	7
La Grande Rosalie	9.31	10	7.27	13	1.27	6	2.72	11	1.23	7
California...	8.69	11	7.90	13	1.57	7	2.97	8	1.76	7
Australia	7.19	14	8.57	17	1.58	9	3.92	20	1.70	9
Solitude, Montagne Longue ...	7.05	16	4.54	12	0.99	5	1.62	12	1.20	8
Port-Louis.										
St. George Street	6.51	15	3.65	12	1.62	6	0.73	4	0.05	3
Flacq.										
Beau Bois (Dupin)	8.70	15	7.30	18	1.26	13	2.17	18	2.36	14
Constance (d'Arifat)	8.69	11	6.28	14	2.59	9	2.21	13	2.18	8
Rich-Fund	9.04	16	7.21	20	1.81	13	3.30	18	3.84	15
Union (Régnard)	12.86	17	8.10	19	1.36	8	2.79	16	3.41	12
St. Julien (Estate)	14.60	22	11.24	23	4.50	16	4.09	18	3.78	14
Bel Etang	14.57	24	14.89	23	5.87	18	5.10	22	3.70	13
Sans Souci	13.86	20	16.46	21	5.76	11	9.27	16	5.41	15
Olivia	13.36	19	9.24	21	2.83	10	2.39	13	2.53	11
L'Etoile	13.38	22	13.43	24	5.13	17	5.27	20	4.20	15
Moka.										
The Bower	9.22	21	8.36	21	3.05	15	2.12	19	0.95	17
Val Ory	9.68	23	6.06	20	2.35	15	1.75	17	0.75	17
Gentilly	10.09	21	7.97	18	3.22	12	2.36	18	1.13	17
Lynnwood	10.00	25	7.20	21	3.09	16	2.25	24	0.86	22
Bon Air	7.97	18	6.67	12	2.47	5	1.63	11	0.42	4
Alma (Verdun)	11.32	23	16.08	25	4.67	21	5.32	21	4.13	20
Le Réduit Gardens	6.30	18	5.23	20	2.40	16	1.69	16	0.66	15
Minissy	9.40	19	8.08	19	3.38	10	2.47	17	1.07	10

LVI.

Mauritius in 1897.

June.		July.		August.		September.		October.		November.		December.	
Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.
3.93	15	1.47	14	3.96	20	1.96	16	1.60	14	1.15	8	4.91	16
4.36	11	0.93	8	2.87	17	2.32	14	2.21	12	1.11	8	3.70	13
5.84	13	1.42	9	4.01	17	2.70	13	1.77	12	2.30	6	4.75	8
6.89	15	2.70	13	5.51	21	4.78	16	2.97	11	3.72	8	10.26	18
6.07	16	1.53	13	4.48	19	3.71	15	2.73	12	3.11	9	10.82	13
2.10	9	1.29	5	1.75	15	1.18	11	1.33	11	1.22	6	4.32	14
1.78	8	0.56	6	1.20	15	0.83	10	0.69	10	0.85	6	3.86	13
3.33	10	2.26	8	2.61	14	2.45	14	2.06	13	1.70	5	6.75	10
1.83	9	2.62	7	1.48	11	1.99	17	1.38	10	0.89	4	5.17	12
2.96	11	2.78	13	2.68	21	2.30	15	1.79	15	1.65	9	5.45	17
2.51	13	1.50	10	1.72	20	1.77	16	1.40	16	1.05	9	4.53	18
3.82	12	2.24	12	3.52	17	2.78	16	2.04	13	3.45	8	6.97	19
4.96	12	1.32	10	3.77	21	3.65	18	2.19	12	3.61	10	6.37	14
3.84	10	1.51	7	4.09	16	3.49	13	3.13	13	2.34	5	6.53	13
5.05	12	2.28	10	5.84	17	3.31	10	4.07	14	2.95	6	6.80	14
5.83	15	1.90	10	6.35	22	4.00	18	3.40	14	2.71	10	13.22	17
2.45	14	2.39	11	2.72	19	1.25	15	1.89	16	1.78	7	6.90	19
1.77	6	0.68	3	0.70	5	0.42	6	1.86	5	1.39	6	7.44	14
6.80	18	3.00	14	4.84	19	2.68	18	3.25	17	1.80	13	10.11	17
5.39	15	2.07	13	3.57	15	1.79	17	1.92	12	1.40	6	10.18	14
7.74	22	2.79	11	4.49	16	3.09	7	3.00	11	2.03	11	8.39	24
6.65	15	2.49	13	4.99	19	2.52	16	3.00	14	2.43	12	8.34	20
9.99	21	3.53	18	8.11	27	5.87	25	5.91	19	3.21	13	10.78	20
8.78	24	3.90	16	8.83	27	6.37	22	4.15	14	3.25	14	*10.86	16
12.96	22	4.30	14	13.97	24	5.79	22	5.02	12	2.58	10	15.01	14
9.10	19	2.58	11	4.03	19	2.36	15	2.35	13	0.87	9	9.67	17
9.22	24	4.15	14	8.88	25	3.98	24	3.53	15	1.51	11	12.35	21
2.86	20	1.65	18	3.06	20	1.82	26	2.46	16	3.91	14	13.47	20
2.53	19	1.48	16	2.44	20	1.62	19	2.30	14	3.34	11	15.36	19
3.41	19	1.94	18	3.77	22	2.60	23	2.89	19	5.87	14	13.37	19
2.99	21	1.66	20	3.01	24	2.02	24	2.40	19	4.18	15	15.10	22
2.34	12	2.01	7	3.13	15	1.81	11	2.05	9	4.88	9	13.30	14
8.39	22	4.00	17	9.62	24	6.24	25	4.59	18	2.50	15	17.17	24
1.94	17	0.78	11	2.21	20	1.45	16	1.62	12	4.64	7	14.93	17
2.87	16	1.68	10	3.51	17	2.39	13	1.93	11	6.50	8	15.67	15

* Inferred.

TABLE

Monthly Rainfall at Various Stations in

Districts and Stations.	January.		February.		March.		April.		May.	
	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.
Plaines Wilhems.										
The Manse (Beau Bassin) ...	* 7.00	14	2.46	19	1.52	16	1.51	19	0.43	14
Villa Fantaisie (Beau Bassin) ...	7.15	14	3.28	7	2.49	6	1.30	8	0.18	5
Bagatelle	7.03	16	6.04	16	3.43	8	2.79	18	1.47	12
Trianon	10.58	18	5.23	15	2.26	8	2.31	15	0.97	9
Salency (Rose Hill)	...	...	...	...	...	...	...	...	...	...
Phœnix (Estate)	14.34	23	6.89	22	3.15	7	3.64	19	1.42	15
Phœnix (Clairfond)	*15.00	23	9.45	22	4.83	14	4.44	18	1.90	13
Réunion (Vacoas)	13.61	26	12.64	21	4.58	14	4.45	17	2.08	18
Marton (do.)	12.77	24	9.81	23	5.01	13	4.26	19	1.68	18
Curepipe Gardens	9.74	28	23.33	27	5.29	24	7.90	21	4.14	21
Villa-le-Bain	13.65	26	24.99	25	5.72	23	8.16	26	4.37	29
Henrietta (Vacoas)	13.76	23	12.25	22	5.15	11	3.68	17	2.23	13
The Glen (do.)	15.79	26	11.13	25	5.71	17	2.95	20	2.08	27
La Marie (do.)	11.02	19	15.13	23	3.64	12	4.49	18	3.59	15
Tamarind Falls (Vacoas) ...	11.19	22	12.79	20	4.65	11	5.66	17	3.32	14
Mare-aux-Vacoas	12.38	22	24.74	25	6.10	22	8.55	21	6.66	21
Black-River.										
Caselà	11.16	14	2.46	7	4.92	8	...	...	...	...
Wolmar	9.38	14	2.81	8	4.88	8	1.05	2	0.04	1
Tamarin	8.96	12	2.52	7	3.94	5	1.20	3	0.00	0
Chamarel, St. Denis	24.37	22	16.58	21	15.53	13	3.63	10	6.84	13
Do. Yard	15.32	23	10.48	20	6.68	13	3.12	10	5.00	11
Grand Port.										
Ferney	16.79	22	12.90	24	6.66	14	1.61	11	1.36	10
Cluny	17.63	17	20.76	24	15.08	16	6.40	19	5.64	15
Riche-en-Eau	21.04	22	10.35	23	4.09	16	1.87	16	2.26	15
Astrœa	19.49	17	12.39	25	8.18	17	3.24	21	3.55	19
Beau Vallon (R.)	10.52	16	7.54	17	4.07	9	1.07	10	1.30	14
Gros Bois	17.37	19	11.74	18	7.79	14	2.03	16	2.98	11
Eau Bleue	16.44	19	16.71	24	10.13	15	3.83	10	5.13	14
Savanne.										
Colmar	15.91	14	11.38	17	10.35	13	2.78	15	2.95	16
Beau Bois	15.71	14	10.80	14	8.49	12	3.09	13	3.09	12
Bénarès (Résidence)	17.11	15	7.32	17	4.93	13	1.72	13	1.60	16
Do. (Sugar House)	21.14	15	8.15	14	3.05	11	1.32	12	1.38	13
Ste. Marie	11.27	11	15.48	14	5.95	5	2.59	10	3.71	10
Beau Champ	10.78	13	7.85	15	4.96	6	2.16	11	1.44	10
St. Aubin	13.13	10	6.70	12	4.69	9	1.59	13	1.81	10
Bel Ombre	11.57	14	9.26	17	4.73	7	1.95	12	1.90	11
Union-Bel Air	10.97	14	9.10	19	3.39	9	2.12	19	2.75	12
Terracine	14.90	12	5.85	10	4.46	5	0.64	6	1.92	8

* Inferred.

LVI.

Mauritius in 1897.—*Concluded.*

June.		July.		August.		September.		October.		November.		December.	
Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.
1.82	19	0.66	13	1.78	21	1.07	19	1.54	17	2.47	13	16.11	24
1.69	12	0.53	5	1.44	7	0 55	5	1.17	5	2.31	8	12.33	16
2.26	10	1.58	7	2.89	16	1.90	11	2.05	13	5.32	6	15.12	16
2.45	13	1.15	10	2.66	14	2.04	16	1.71	12	4.56	9	14.21	17
2.32	13	1.11	9	2.54	19	1.38	16	1.49	11	4.82	8	14.76	20
3.11	17	1.69	13	4.80	20	2.76	16	2.41	13	4.83	8	19.97	17
3.61	18	1.99	16	5.86	22	3.11	20	2.82	11	3.49	12	16.07	20
3.63	18	2.49	16	6.30	24	3.72	24	3.71	15	3.47	10	15.57	22
3.06	25	2.21	22	5.51	25	3.13	24	2.82	18	3.70	10	14.83	24
6.22	22	4.16	25	10.95	28	6.63	24	5.39	16	5.33	19	17.51	24
6.53	28	4.56	26	20.29	21	8.22	9	7.47	13	5.44	9	18.64	25
3.09	18	2.06	13	6.68	22	3.04	18	3.32	11	1.82	10	12.33	18
2.97	29	1.99	21	5.45	31	2.99	25	3.79	28	2.18	26	11.05	31
4.35	19	2.83	14	8.38	27	3.28	21	2.84	13	1.48	7	11.73	16
4.75	21	1.84	13	7.06	25	2.71	18	4.76	11	2.18	9	11.39	20
10.05	26	5.44	17	14.35	26	7.79	26	6.93	19	3.15	14	16.43	23
...	...	...	...	...	...	...	...	...	...	...	...	...	...
1.73	4	0.00	0	0.33	3	0.00	0	1.30	3	0.61	4	7.63	12
1.03	3	0.00	0	0.08	1	0.19	2	0.78	3	0.16	2	7.02	13
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...
10.81	18	1.71	11	2.50	14	2.67	16	1.97	10	0.93	6	11.86	16
13.61	20	3.78	15	8.19	22	5.64	23	3.84	14	2.43	11	15.42	18
11.66	27	2.08	14	3.56	19	2.73	23	2.35	17	2.65	11	10.44	20
12.70	21	2.28	17	5.03	21	4.45	27	3.55	16	2.74	12	12.70	20
6.68	21	1.42	13	1.42	13	3.29	20	1.60	12	1.09	8	7.26	14
11.37	23	2.13	10	3.23	11	3.61	13	2.71	12	3.19	5	7.81	15
12.58	21	3.51	18	6.95	25	4.66	22	3.25	17	2.56	21	15.85	19
11.42	22	2.48	11	4.65	19	4.63	15	6.14	16	2.38	5	7.85	16
10.24	20	2.03	12	5.27	18	4.32	17	4.66	15	4.85	4	10.76	14
8.28	22	1.90	11	2.90	17	2.61	18	3.80	16	1.59	6	4.64	16
8.72	20	1.48	8	2.41	16	1.50	16	3.43	14	1.04	6	3.99	14
12.56	18	2.84	8	3.52	9	2.44	7	4.57	9	2.00	2	14.20	12
11.08	20	2.06	8	2.78	11	1.95	8	2.57	9	1.76	4	11.33	12
9.22	19	2.29	12	3.19	17	2.40	16	4.57	15	1.49	4	4.30	15
6.61	22	1.39	9	3.84	15	1.93	11	3.14	12	1.68	4	10.04	18
8.14	23	1.95	11	3.43	17	3.10	16	3.18	12	1.74	7	9.07	18
8.78	13	1.38	7	1.97	13	1.69	9	2.87	6	1.39	4	5.07	10

TABLE LVII.

Yearly Rainfall at Various Stations in Mauritius in 1897 compared with the average.

Districts and Stations.	Sums.		Averages.		No. of years.	Greatest fall in one day during the year.	Date.
	Ins.	Days.	Ins.	Days.			
Rivière du Rempart.						ins.	
Mon Loisir	38.61	160	54.84	125	5	3.20	Jan. 26
Schœnfeld	34.43	144	53.65	171	15	2.41	„ 26
Labourdonnais	42.49	120	63.76	133	35	2.50	Dec. 6
Antoinette	58.81	159	69.94	172	7	3.65	„ 5
Mon Songe	54.85	158	75.67	166	15	5.50	„ 30
Pamplemousses.							
St. André	26.54	110	43.85	127	32	3.48	Jan. 24
Solitude	19.73	108	35.82	100	12	1.71	Dec. 6
Mon Rocher	37.30	121	61.59	123	16	3.07	„ 6
Beau Plan	28.53	112	51.79	105	12	2.05	Jan. 25
Botanical Gardens	32.93	151	64.53	166	30	2.31	Dec. 6
The Observatory	27.26	168	48.62	202	23	2.05	„ 6
The Mount	42.26	154	66.68	151	6	3.00	„ 6
Constance	46.33	153	71.97	149	17	2.67	Jan. 25
La Grande Rosalie	46.73	124	74.00	161	17	2.50	Dec. 6
California	53.19	129	81.51	128	5	2.46	„ 6
Australia	60.37	175	76.69	168	3	5.58	„ 30
Solitude, Montagne Longue ...	34.78	154	54.92	151	2	2.56	„ 6
Port-Louis.							
St. George Street	26.82	85	40.52	94	3	2.12	„ 5
Flacq.							
Beau Bois (Dupin)	54.27	194	67.96	178	4	2.60	„ 30
Constance (d'Arifat)	48.27	147	62.50	135	12	3.44	Jan. 24
Rich-Fund	56.73	184	80.89	171	9	2.16	„ 26
Union (Régnard)	58.94	181	71.82	187	21	4.10	„ 25
St. Julien (Estate)	85.61	236	85.61	236	1	3.12	Dec. 24
Bel Etang	90.27	233	124.05	233	2	3.60	Jan. 11
Sans Souci	110.39	201	128.91	209	14	5.87	Dec. 24
Olivia	61.31	177	61.31	177	1	3.27	„ 6
L'Etoile	85.03	232	102.68	190	16	4.30	„ 25
Moka.							
The Bower	52.93	227	67.11	285	11	3.25	„ 25
Val Ory	49.66	210	49.66	210	1	5.66	„ 6
Gentilly	58.62	220	82.07	199	24	4.15	„ 6
Lynnwood	54.76	253	70.06	231	28	6.47	„ 6
Bon Air	48.68	127	66.47	195	14	4.00	„ 5
Alma (Verdun)	94.03	255	130.72	255	25	4.30	„ 24
Le Réduit Gardens	43.85	185	58.00	183	11	4.77	„ 6
Minissy	58.95	165	70.51	138	14	5.05	„ 5

TABLE LVII.

Yearly Rainfall at Various Stations in Mauritius in 1897 compared with the average.—*Concluded.*

Districts and Stations.	Sums.		Averages.		No. of years.	Greatest fall in one day during the year.	Date.
	Ins.	Days.	Ins.	Days.			
Plaines Wilhems.							
The Manse (Beau Bassin) ...	38.37	208	38.37	208	1	4.11	Dec. 6
Villa Fantaisie (Beau Bassin)	34.42	98	34.42	98	1	7.46	„ 6
Bagatelle	51.88	149	71.04	199	7	5.50	„ 6
Trianon	50.13	166	63.68	200	31	5.56	„ 6
Salency (Rose Hill)	...	...	...	...	...	5.30	„ 6
Phœnix (Estate)	69.01	190	75.92	220	19	6.70	„ 6
Phœnix (Clairfond)	72.57	209	88.01	248	7	5.21	„ 6
Réunion (Vacoas)	76.25	225	87.40	233	20	3.83	Jan. 9
Marton (do.)	68.78	245	92.26	261	7	3.57	„ 8
Curepipe Gardens	106.59	279	129.88	283	14	5.25	Dec. 6
Villa-le-Bain	128.04	270	131.56	311	12	4.41	Jan. 9
Henrietta (Vacoas)	69.41	196	85.46	231	16	3.38	Dec. 6
The Glen (do.)	68.08	306	89.10	266	11	3.21	Jan. 9
La Marie (do.)	72.76	204	101.51	201	15	3.15	Feb. 28
Tamarind Falls (Vacoas) ...	72.30	201	82.20	220	11	3.36	„ 28
Mare-aux-Vacoas	122.57	262	143.45	239	9	5.95	„ 28
Black-River.							
Caselà	...	...	51.90	71	9	2.72	March 4
Wolmar	29.76	59	36.01	53	15	2.77	„ 4
Tamarin	25.88	51	38.46	70	16	3.38	Jan. 22
Chamarel, St. Denis	...	...	83.89	141	5	7.27	March 1
Do. Yard	...	...	78.21	138	19	2.70	Feb. 28
Grand Port.							
Ferney	71.77	172	91.70	185	20	4.29	Dec. 25
Cluny	118.42	214	145.91	242	34	9.10	March 5
Riche-en-Eau	75.08	223	90.07	240	20	5.66	Jan. 23
Astrœa	90.30	233	106.71	211	16	4.06	„ 23
Beau Vallon	47.26	167	65.14	206	33	1.92	Feb. 21
Gros Bois	75.96	167	97.07	206	34	4.10	Jan. 23
Eau Bleue	101.60	225	116.82	211	4	4.37	March 4
Savanne.							
Colmar	82.92	179	92.98	186	26	4.67	Jan. 9
Beau Bois	83.31	165	83.31	165	1	3.99	„ 9
Bénarès (Résidence)	58.40	180	66.31	171	12	5.79	„ 23
Do. (Sugar House) ...	58.01	159	71.35	148	6	4.70	„ 24
Ste. Marie	81.13	115	101.26	113	2	5.30	March 5
Beau Champ	60.72	127	60.50	129	18	4.25	„ 5
St. Aubin	55.38	152	83.13	213	30	2.39	Jan. 24
Bel Ombre	58.04	152	67.25	152	12	5.35	March 5
Union-Bel Air	58.94	177	76.49	155	29	2.33	Jan. 8
Terracine	50.92	103	63.54	136	9	4.25	„ 23

TABLE

Showing approximately the Dates, Localities, &c., of

Date.	Localities. Latitude. From.	Latitude. To.	Longitude. From.	Longitude. To.	Vessels by which experienced.	Wind. Direction.	Maximum Force.
Jan.	° ′	° ′	° ′	° ′			Beaufort.
5	26.11 S.	...	52.32 E.	...	Espérance	N.E. & N.N.E. ...	8
13—16	38.54 S.	39.02 S.	24.40 E.	31.52 E.	Prince George	E. veered through S. to W.	9
14—15	42. 1 S.	41.29 S.	57.42 E.	57.48 E.	Falconhurst	S.S.W. veered through S. to S.E. and backed to S.W.	12
25	41. 5 S.	...	19. 5 E.	...	Glandinorwig	N., N.W., W.	9
26—29	13. 4 S.	14.37 S.	71.45 E.	74.10 E.	Maggie Low : Parvady...	N.W. & N.	8
28—30	26,38 S.	26.12 S.	44.45 E.	44.47 E.	S. S's Naderi & Hindustani.	E., S.S.E.	9
Jan. 29 / Feb. 1	36. 3 S.	36. 5 S.	73.41 E.	72.50 E.	Prince George	S.E., S., S.S.W. ...	10
Jan. 31 / Feb. 2	36.19 S.	37.26 S.	19.43 E.	22.47 E.	Alert	S.E., S.S.E. shift to N.W., W., W.S.W.	...
Feb.							
4	29.55 S.	...	54.56 E.	...	Ione	E.S.E.	9
13—14	42. 8 S.	41.41 S.	29.11 E.	30.17 E.	Ruthwell	W. by S., W. S. W., S. W. by W.	8
13—17	17.44 S.	10.15 S.	55.55 E.	58.18 E.	S.S. Cashmere : Franz...	All points	12
14—15	41.35 S.	42.38 S.	62.35 E.	66. 6 E.	Ione	E.S.E., N.E. to N.W....	9
15	23.54 S.	...	42.34 E.	...	Wild Rose	S.S.E.	8
15—20	36.56 S.	23.30 S.	85.00 E.	90.52 E.	Glandinorwig	S.S.E. veered through E. to N.N.E.	9
16	41.32 S.	...	39.39 E.	...	Ruthwell	N., N.E. shift to W.S.W., W., W. by N.	9
16—21	Tamatave				Scotia : Columbus ...	S.S.E., S., S.W. ...	...
16—24	13.33 S.	37.48 S.	50.05 E.	60.40 E.	S.S. Soudan, S.S. Ormiston : Alert : Vega : Ruthwell.	All points	12
18—19	39.53 S.	39.31 S.	46.00 E.	48.48 E.	Ruthwell	Variable Westerly Winds.	9
19	27.40 S.	...	14.48 E.	...	Lady Furness	S., S.E. by S. ...	8

LVIII.

Hurricanes and Gales in the Indian Ocean during the year 1897.

Barometer.		Remarks.	Mauritius.					
			Barometer.		Temperature.		Wind.	
Highest.	Lowest.		Highest.	Lowest.	Highest.	Lowest.	Direction.	Max. Velocity per hour.
ins.	ins.		ins.	ins.	°	°		Miles.
30.16	...	Fresh gale with very heavy sea.	29.963	...	85.3	76.7	E. by N. : N.E. by E. : N.E.	15.8
29.79	29.28	Strong gale with very high sea.	29.955	29.827	86.6	74.7	N. : N. N. W. : N. W. veered through S. to E. and N.E.	18.1
29.40	28.90	Blowing a hurricane; heavy cross sea and rain.	29.955	29.888	84.0	74.7	"	18.1
...	...	Very heavy squalls, tremendous cross sea, heavy rain with very vivid lightning.	29.745	...	84.3	72.4	S.S.E. backed through W. & N. to E.	9.7
30.07	29.94	Fresh to moderate gale with heavy squalls, much lightning and heavy sea.	29.874	29.672	84.6	70.0	From E. S. E. backed to S.W. then veered to S.E.	15.9
29.84	29.80	Sharp squalls with heavy sea.	29.967	29.775	83.2	71.3	S. : S. E. : E. S. E. : variable.	19.1
29.85	29.41	Heavy gale with hurricane squalls ; thick rain and very high cross sea.	30.014	29.874	83.7	68.8	Variable: E.S.E. : S.E.	20.1
29.80	29.50	Blowing a gale; tremendous sea ; heavy squalls with occasional lightning.	30.022	29.999	83.7	68.8	E.S.E. : S.E.	20.1
...	...	Strong gale with very high confused sea.	30.052	...	80.8	73.4	E. : E.S.E.	21.6
30.05	29.95	Hard gale with very heavy sea.	29.854	29.851	86.0	75.3	S.E. : E. : E.N.E. ...	18.3
29.81	29.30	Hurricane ; squalls of terrific force ; rain like stones ; high dangerous sea.	29.854	29.820	86.3	75.3	S. E. : E. : E. N. E. : E.S.E.	27.6
...	...	Strong gale ; constant rain and heavy confused sea : vessel rolling heavily and shipping much water.	29.851	29.840	86.3	77.0	E. : E.S.E.	26.8
29.84	...	Fresh to moderate gale ; mountainous sea.	29.840	...	86.3	77.8	E. : E.S.E.	26.8
...	...	Hard squalls, heavy sea : thunder to S.W.	29.858	29.785	86.3	75.0	E.S.E. : E. : N.E. : N.	28.4
29.60	...	Hard gale ; high seas and heavy rain.	29.830	...	85.3	77.5	E.S.E.	27.4
29.94	29.66	Mauvais temps, ras-de-marée terrible, grains violents pluie en abondance.	29.858	29.720	85 3	75.0	E.S.E. ; E. : N.E. : N.	28.4
30.28	29.32	Hurricane ; fearful squalls ; tremendous sea ; much rain.	29.938	29.720	85.3	71.0	E. S. E. through E. and N. to S.E.	28.4
30.18	29.87	Hard gale, hard squalls and heavy rain.	29.858	29.856	85.0	76.1	E. : E.S.E.	28.4
30.01	...	Moderate to fresh gale with high confused sea.	29.856	...	83.0	76.1	E.	21.4

TABLE

Showing approximately the Dates, Localities, &c., of Hurricanes

Date.	Localities.				Vessels by which experienced.	Wind.	
	Latitude.		Longitude.				
	From.	To	From.	To.		Direction.	Maximum Force.
Feb.	° ′	° ′	° ′	° ′			Beaufort.
25—26	42.15 S.	43.00 S.	90.56 E.	94.35 E.	Ione	N., N.W., W. ...	9
25—27	35.53 S.	35.44 S.	118.42 E.	115.50 E.	J. L. Skolfield	S.W. veered through S. to E. and backed to S.E.	10
27	45.17 S.	...	117.45 E.	...	Umvoti	N.W.	8
Feb. 27 / Mar. 1	39.00 S.	38.00 S.	35.53 E.	40.57 E.	Eskdale	S. by E. through S. to S. W. by S.	9
March.							
3— 4	43.20 S.	41.42 S.	115.58 E.	119.37 E.	Ione	W., W.S.W.	9
6—10	15.40 S.	23.17 S.	64.23 E.	69. 0 E.	S.S. Warora: E. J. Spence	All points	9
9—10	36.48 S.	36. 7 S.	51.46 E.	53.40 E.	Rydalmere	N.E. through N. to S.W.	9
17	41.43 S.	...	81.55 E.	...	Gurtheyen Castle ...	W., N.W., S.W. ...	8
22	45.27 S.	...	99. 1 E.	...	Gurtheyen Castle ...	N.W.	9
24—25	39.16 S.	38.58 S.	17.57 E.	22. 0 E.	Sierra Lucena	Variable from E. S. E. through S. to W.	9
27—28	39.00 S.	39.00 S.	24.24 E.	28.48 E.	Sierra Lucena	N.E. through N. to W.	9
April.							
4	34.35 S.	...	50.48 E.	...	Sierra Lucena	S.E.; S.E. by E. ...	8
4	37.34 S.	...	28.51 E.	...	William Wilson ...	E. by N.; N.E. ..	9
4— 9	10.43 S.	14. 0 S.	70.56 E.	64.50 E.	Louis Alfred	W.N.W.; E.S.E.; S.E.	...
6— 8	40.49 S.	41.14 S.	0.32 E.	9.12 E.	Stuart	W.S.W.; S.W. veered through N. to N.N.E.	8
7— 8	29.58 S.	39.32 S.	34. 6 E.	35.59 E.	William Wilson ...	E., N.W., S. by E. ...	9
7— 8	17.59 S.	17.12 S.	76.12 E.	73.07 E.	Centre Amérique ...	S.S.E. to E.S.E. ...	...
9—10	23.27 S.	20.43 S.	58.29 E.	58. 8 E.	Sierra Lucena	E. to S.E.	9
10—11	41.46 S.	42.57 S.	16.17 E.	21. 1 E.	Stuart	N.E. through N. to W.	9
20—21	36.24 S.	34.36 S.	55.10 E.	59. 5 E.	Stuart	N.N.W., W.	8

LVIII.

and Gales in the Indian Ocean during the year 1897.—*Continued.*

Barometer.		Remarks.	Mauritius.					
			Barometer.		Temperature.		Wind.	
Highest.	Lowest.		Highest.	Lowest.	Highest.	Lowest.	Direction.	Max. Velocity per hour.
ins.	ins.		ins.	ins.	°	°		Miles.
...	...	Heavy gale, tremendous heavy sea, ship labouring.	29.995	29.975	85.6	71.1	S.E. : S.E. by E. ...	23.1
29.90	...	Terrific gale, mountainous sea ; sails carried away.	29.995	29.895	85.6	71.1	S.E. : S.E. by E. : E.	29.1
29.87	...	Heavy squalls and very heavy sea.	29.895	...	81.3	74.4	S.E. by E. : E. ...	29.1
...	...	Strong gale with high sea....	29.907	29.891	82.7	73.9	S.E. by E. : E. : E. by S.	29.1
...	...	Heavy gale ; squalls with hail : tremendous sea.	29.888	29.853	85.7	74.2	E. : E. by N.	16.1
30.14	29.64	Fierce squalls ; very heavy confused sea ; blinding rain.	29.947	29.866	86.0	70.1	E. S. E. : S. E. by E. : S.E. and variable.	22.1
29.80	28.60	Hard squalls ; heavy rain with lightning ; high sea.	29.907	29.885	85.1	70.1	S.E. by E. : S.E. and variable.	14.0
29.80	...	Moderate to fresh gale. ...	30.028	...	84.0	66.1	S.E. by E. : E.S.E. ...	18.4
29.05	...	Very heavy gale, heavy squalls and nasty sea.	29.940	...	82.5	72.0	S.E. by E. ; E.S.E. ...	23.1
29.98	29.58	High confused sea, heavy rain, thunder and lightning.	29.869	29.854	84.2	73.3	S.E. : E.S.E. : variable from West.	15.1
29.66	29.31	Very hard squalls and heavy sea ; heavy rain and incessant lightning.	29.908	29.859	85.2	71.1	S. by E. : S.E. : E. ...	16.4
30.36	...	Strong squalls, thick rain. ...	29.937	...	84.0	70.1	S.E. : E.S.E.	20.9
...	...	Hard squalls ; rain with heavy sea.	29.937	...	84.0	70.1	S.E. ; E.S.E.	20.9
30.04	29.92	Rafales et grains violents, mer-démontée, éclairs.	30.095	29.937	84.0	69.1	S.E. : E.S.E.	30.6
30.00	29.80	Thick rain, high cross sea. ...	30.095	30.033	83.0	69.7	S.E. by E. : E.S.E. ...	30.6
29.70	29.50	Hard squalls, very heavy sea ; rain with thunder and lightning.	30.095	30.085	81.3	69.7	E.S.E. : S.E. by E. ...	27.8
29.92	29.84	Rafales très violentes, mer excessivement affreuse.	30.095	30.085	81.3	69.7	E.S.E. : S.E. by E. ...	27.8
30.31	30.13	Very hard squalls, heavy cross sea.	30.086	30.029	81.3	70.0	S. E. by E. : E.S.E....	29.4
29.80	29.70	Heavy squalls, high cross sea.	30.029	30.022	81.7	70.0	S.E. by E. : E.S.E. ...	25.1
30.20	30.15	Stiff gale ; heavy squalls with rain ; high cross sea.	30.130	30.117	82.4	66.2	S.E. by E. : E.S.E. ...	16.2

TABLE

Showing approximately the Dates, Localities, &c., of Hurricanes

Date.	Localities.				Vessels by which experienced.	Wind.	
	Latitude.		Longitude.				
	From.	To.	From.	To.		Direction.	Maximum Force.
April.	° ′	° ′	° ′	° ′			Beaufort.
25—26	40.29 S.	39.48 S.	21.19 E.	27.19 E.	Bothnia	N.W., S.S.W., S. by W.	8
26	25.51 S.	...	13.18 E.	...	S.S. Clan Graham ...	S.S.E.	8
May.							
3— 5	35.57 S.	35.35 S.	18.35 E.	24. 6 E.	Greyhound	S. W., S. S. W., S., S.S.E.	11
5— 6	9.41 S.	10.38 S.	60.47 E.	59.50 E.	Zipporah	S., S. S. E., S.E. and backed to S.	9
9	28. 7 S.	...	28.58 E.	...	Greyhound	E.N.E., N.E. by E., N.E.	8
12—13	14.26 S.	16.17 S.	61. 5 E.	59.45 E.	Zipporah	S.E.	9
13—15	39. 7 S.	36.48 S.	43.50 E.	52. 0 E.	Greyhound	N.N.W. veered through W. to S.W.	9
17	34.19 S.	...	56.15 E.	...	Greyhound	N.N.W., N.	8
June.							
6— 7	12.27 N.	10.22 N.	64.45 E.	66.27 E.	Crystal	S.W. by W., W.S.W., W.N.W.	8
6— 8	38.14 S.	32.45 S.	22. 0 E.	32.18 E.	Knight Commander: Helensburg.	N.N.W., S.S.W., S. by W., S.	9
13	5.28 N.	...	54.40 E.	...	S.S. Ville de Paris ...	S.E.	8
13—15	41.52 S.	25.20 S.	51.16 E.	60.27 E.	Avenger : Greyhound ...	S.W., S. S. W., S., S.S.E.	9
15—17	9.40 N.	7.12 N.	87.25 E.	88.20 E.	Golden Fleece	W.S.W. ; S.W. ...	9
18	37.24 S.	37.50 S.	18.24 E.	28.21 E.	Lord Clyde : Sophie Kirk.	W., W.N.W., N.W. by W.	9
18—19	36.58 S.	35.13 S.	50. 4 E.	52.22 E.	Knight Commander ..	N.N.W., N.W., S.W.	9
23—29	32. 0 S.	36.39 S.	30.46 E.	41.45 E.	Greyhound : Sophie Kirk.	N.N.E. veered through N. to S.W.	12
25—27	35.24 S.	32.40 S.	112.13 E.	112.34 E.	Gurtheyen Castle ...	N., S. W., W. S. W., W., W.N.W.	9
27	35.43 S.	...	48.48 E.	...	Sophie Kirk	E.N.E., N., W. ...	8
27—29	38.52 S.	39.11 S.	13.40 E.	22.13 E.	Tacora : Invermark ...	N.W. by W., N.N.W., W. by N., W.S.W., S.W.	10

LVIII.

and Gales in the Indian Ocean during the year 1897.—*Continued.*

Barometer.		Remarks.	Mauritius.					
			Barometer.		Temperature.		Wind.	
Highest.	Lowest.		Highest.	Lowest.	Highest.	Lowest.	Direction.	Max. Velocity per hour.
ins.	ins.		ins.	ins.	°	°		Miles.
30.24	29.54	Fresh gale with heavy rain squalls.	30.068	30.057	82.5	73.4	S.E. : S.E. by E. : E.S.E.	26.8
30.08	...	Strong wind, high head sea.	30.057	...	82.5	73.4	E.S.E.	21.6
30.19	29.65	Hard gale with hurricane squalls. High confused sea, heavy rain, thunder and lightning.	30.103	30.057	79.2	65.1	S. E. : S. S. E. : S. E. E.S.E.	27.3
29.82	29.80	Hard squalls with rain; heavy sea.	30.103	30.081	76.7	67.1	S.E. by E. : E.S.E. ...	27.3
29.96	...	Fresh gale; cloudy weather.	30.120	...	77.3	66.0	S.E. by E. : E.S.E. ...	21.1
30.02	...	Very high sea, hard squalls with rain.	30.194	30.133	77.5	65.1	S.E. by E. : E. S. E. : E.	21.9
29.71	29.45	Heavy rain squalls and heavy sea.	30.133	30.061	79.3	63.8	E. : E.S.E. : S.E. : ...	19.8
29.92	...	Fresh gale with heavy rain squalls.	30.120	...	78.4	67.2	S.E. : E.S.E. : E. by S.	17.4
29.84	...	Very heavy squalls; heavy rain; lightning.	30.158	30.084	77.2	65.0	S.E. : E.S.E.... ...	26.1
30.19	30.00	Terrific squalls, tremendous sea; heavy rain with thunder, lightning and hail.	30.158	30.013	77.2	65.0	S. E. : E. S. E. : E. : E.S.E.	26.1
29.94	...	Fresh gale, heavy squalls and rain, with very heavy sea.	30.116	...	79.4	69.0	E.S.E. : S. E. by E.	20.6
30.00	29.75	Terrific squalls; tremendous high sea.	30.321	30.116	79.4	64.0	E.S.E. : S.E. by E. : S.E. : S.S.E. : S.E.	25.6
29.84	29.80	Hard squalls; high cross seas.	30.321	30.268	73.3	62.3	S. E. : S. E. by E. : E.S.E. : E.	25.6
...	...	Gale; severe squalls; heavy sea and lightning.	30.203	...	73.8	63.2	E.S.E. :	17.0
30.07	29.70	Shift of wind to S.W. heavy squalls with thunder; confused sea.	30.203	30.158	74.6	63.2	E.S.E. : S.E. ...	17.0
29.90	29.46	Hurricane with violent squalls; terrible sea; lightning.	30.244	30 084	78.4	59.8	S.E. by E. : E.S.E. : E. : E. by N. : N. to W.S.W. S.S.E. and E.S.E.	23.9
29.90	29.20	Shift of wind to S.W.; violent squalls, boisterous sea and heavy rain.	30.139	30.084	77.0	59.8	S.E. by E. : E. S. E. : E. : E. by N.	20.4
...	...	Heavy squalls with rain. ...	30.084	...	77.0	69.0	E. : E. by N.	16.0
29.97	29.34	Hard squalls, heavy confused sea.	30.141	30.084	78.4	68.1	E. : E. by N. : N. to W.S.W. : S.S.E. and E.S.E.	16.0

TABLE

Showing approximately the Dates, Localities, &c., of Hurricanes

Date.	Localities.				Vessels by which experienced.	Wind.	
	Latitude.		Longitude.				
	From.	To.	From.	To.		Direction.	Maximum Force.
July.	° ′	° ′	° ′	° ′			Beaufort.
3—10	11. 2 N.	10.16 N.	96. 0 E.	94.15 E.	Glandinorwig	S.W. to N.W.... ...	9
8	40.30 S.	...	35. 5 E.	...	Barbadian	N. N. W., W.N.W., W., W.S.W.	9
9	33.46 S.	...	54.28 E.	...	Invermark	N. by E.	9
14—15	9.15 S.	9.59 S.	61. 1 E.	60.40 E.	Zipporah	S.E. by S., S.E., E.S.E.	9
15	8.56 N.	...	91. 0 E.	...	Glandinorwig	S.W., S.S.E.	9
August.							
1	31.52 S.	...	54.10 E.	...	Ione	Westerly winds ...	9
4— 5	10.10 N.	8.4 N.	52.19 E.	53.36 E.	S.S. Peron	S.S.W., S.W. ...	...
6	13.50 N.	...	84.35 E.	...	Parvady...	W. by S., W.S.W., S.W.	8
6— 7	38.57 S.	35.44 S.	19. 4 E.	26.52 E.	Invercoe : Greyhound ...	W. by N., W., W. by S., W.S.W.	10
6—10	8.40 S.	12.10 S.	82.13 E.	77. 6 E.	Glandinorwig	S.E., E.S.E.	11
9—14	37.30 S.	34.58 S.	30.10 E.	52. 9 E.	Invercoe: Greyhound ...	E. by N. through N. to S.S.W.	8
11—12	16.16 N.	13.42 N.	71.13 E.	70.18 E.	S.S. Mohammadi ...	W. by S., W. ...	9
27—31	36.18 S.	31.41 S.	115.40 E.	112.38 E.	County of Ayr	N. N. W. to W. and S.S.W.	10
Sept.							
2— 4	39.17 S.	40.23 S.	24. 8 E.	22.49 E.	Altona	S.S.E., S.E., E.S.E., E. by S.	9
3— 4	29.28 S.	30.52 S.	35.24 E.	32.30 E.	Umvoti	E.N.E., E., N.E., S.	10
4— 5	21.45 S.	21. 9 S.	50. 0 E.	51.21 E.	Scotia	E., through S. to S. by W.	9
11	39.59 S.	...	19.40 E.	...	Braemar...	N.W., W.	12
16—17	38.55 S.	39. 0 S.	40.43 E.	42.41 E.	Braemar...	N.N.E., N. by E., S.	10
20	39.14 S.	...	23.10 E.	...	Criffel	E., E.N.E., N.W. ...	9

LVIII.

and Gales in the Indian Ocean during the year 1897.—*Continued.*

Barometer.		Remarks.	Mauritius.					
			Barometer.		Temperature.		Wind.	
Highest.	Lowest.		Highest.	Lowest.	Highest.	Lowest.	Direction.	Max. Velocity per hour.
ins.	ins.		ins.	ins.	°	°		Miles.
...	...	Strong gale ; terrific squalls with rain and high dangerous sea.	30.292	30.194	76.1	63.2	Between E. and S. by E.	28.8
29.40	...	Heavy squalls with rain and vivid lightning.	30.229	...	75.2	65.0	E.S.E.	25.5
30.23	...	Hard gale and very heavy sea.	30.207	...	73.3	65.8	E.S.E. : E. : E.S.E. : S.E.	22.1
29.90	...	Blowing hard ; rainy with high choppy sea.	30.142	30.139	75.4	62.5	S.E. by E. : E. ...	18.9
...	...	Strong gale, very heavy sea and violent squalls.	30.142	...	75.4	63.0	S.E. by E. : E. ...	18.9
...	...	Heavy rain squalls ; high sea.	30.033	...	76.9	59.4	E.S.E. : E. by N. : E. N.E. :	13.9
...	...	Coup de vent, très fortes rafales, mer démontée.	30.267	30.255	75.4	65.5	S.E. : S. E. by E. : E.S.E.	27.3
29.70	...	Moderate to fresh gale, hard squalls ; very high sea.	30.255	...	76.0	66.0	S.E. by E. : E.S.E. : E. by S. : E.	25.9
29.80	29.60	Hurricane squalls, tremendous sea.	30.255	30.236	76.5	66.0	S.E. by E. : E.S.E. : E. by S.	25.9
30.00	29.50	Terrific squalls of hurricane force, blinding rain.	30.258	30.207	77.2	65.0	S. E. by E. to E., backed to S.E.	25.9
30.20	29.65	Fresh gale, hard squalls ; very heavy rain and sea.	30.261	30.162	77.7	65.0	E.S.E. : S.E. : S.E. by E. : E.S.E. : E.	28.1
29.79	29.58	Terrific squalls ; incessant rain ; heavy sea.	30.261	30.230	75.7	65.8	S.E. by E. : E.S.E. ...	28.1
30.02	29.42	Fierce gale, terrific squalls with rain and hail : high dangerous sea.	30.216	30.178	77.3	63.8	E. ; E.S.E. : S.E. by E.	26.4
...	...	Blowing a heavy gale ; high confused sea ; heavy squalls and rain.	30.099	30.065	77.7	63.0	E. by S. : E.S.E. : S.E. : variable.	34.0
30.08	30.06	Very heavy squalls ; very high confused sea ; incessant lightning to S.E.	30.087	30.065	77.4	63.0	E.S.E.: S.E. ; variable.	34.0
30.40	30.30	Frightful squalls and sea ; heavy rain.	30.225	30.065	76.0	61.0	S.E. : W. by S. : S. : S.E. : S.E. by E.	34.0
29.46	...	Heavy gale of hurricane force ; mountainous sea and heavy rain.	30.158	...	78.0	63.4	E. by S. : E. : E. by N. ;	20.1
29.80	29.50	Violent squalls, dangerous sea ; thick rain, vivid lightning.	30.202	30.173	78.9	67.7	E.S.E. : E. by S. : E.	27.5
29.50	...	Very strong gale ; very high confused sea and heavy rain.	30.104	...	79.1	66.2	S. E. ; S. E. by E. : E. by. S.	14.7

TABLE

Showing approximately the Dates, Localities, &c., of Hurricanes

Date.	Localities.				Vessels by which experienced.	Wind.	
	Latitude.		Longitude.				
	From.	To.	From.	To.		Direction.	Maximum Force.
Sept.	° ′	° ′	° ′	° ′			Beaufort.
21	35.58 S.	...	35.10 E.	...	Umvoti	N., N.W., S.W. ...	9
21	1.57 S.	...	76.12 E.	...	S.S. Lalpoora	S.W., W.S.W., W., W.N.W.	9
October.							
2	39.35 S.	39.48 S.	28.20 E.	35.36 E.	Peru, Cabul	Between N.E. and S.W. through N.	9
11—12	39.10 S.	39.35 S.	82.57 E.	86.30 E.	Golden Fleece	N.N.W. to W. ...	9
11—16	35.26 S.	35.36 S.	20.27 E.	19.55 E.	Greyhound	W.N.W. to N.N.W. ...	9
19	40.25 S.	...	110.50 E.	...	Golden Fleece	N.N.W. to S.W. ...	9
Nov.							
1	33.28 S.	...	53.45 E.	...	Charlotte	N.N.E., N., S.W., S.	9
11—16	35.42 S.	32.40 S.	33.25 E.	29.20 E.	Umvoti : C. J. S. ...	N.N.W., through W. to S.W.	10
23	42.24 S.	...	19.13 E.	...	Sierra Cordova	N.W., S.W.	9
27	42.43 S.	...	28.29 E.	...	Sierra Cordova	N.N.W. through W. to S.W.	9
Dec.							
3— 6	33.30 S.	38.31 S.	48.34 E.	59.50 E.	Sierra Cordova : Paul Albert : Umvoti : Georg.	All points	10
4— 5	16. 1 S.	21.27 S.	57.25 E.	59. 2 E.	Maggie Low : Crystal : Scilini.	All points	9
6— 8	41.26 S.	42. 3 S.	78.48 E.	85.35 E.	E. J. Spence	N.N.E., N.W., W.N.W.	9
12	27. 0 S.	...	61.12 E.	...	Umvoti	E.S.E., S.E.	9
17—18	37.53 S.	37.57 S.	27.21 E.	28.56 E.	South American ...	N.E., S., S.W. ...	8
18—20	40.42 S.	42.17 S.	83.17 E.	94.18 E.	Peru	N.E., N.W. by W., W., W.S.W.	8

LVIII.

and Gales in the Indian Ocean during the year 1897.—*Continued.*

Barometer.		Remarks.	Mauritius.					
			Barometer.		Temperature.		Wind.	
Highest.	Lowest.		Highest.	Lowest.	Highest.	Lowest.	Direction.	Max. Velocity per hour.
ins.	ins.		ins.	ins.	°	°		Miles.
29.60	...	Hard squalls with heavy rain; high sea and lightning.	30.116	...	79.0	63.0	E. : E. by S. : E.S.E.	20.4
29.93	29.87	Heavy squalls of hurricane force; high dangerous sea; vivid lightning.	30.116	...	79.0	63.0	E. : E. by S. : E.S.E.	20.4
29.70	29.60	Heavy squalls; nasty cross and dangerous sea; heavy thunder storm and lightning.	30.320	...	77.2	63.0	E.S.E. : E. by S. ...	24.1
29.81	29.54	Heavy squalls and rain; high confused sea.	30.225	30.197	77.7	65.2	S.E. by E. : E.S.E. : E.	21.6
29.84	29.50	Stiff gale; violent squalls; terrible sea.	30.225	30.114	78.7	60.1	Between S.E. by E. and E. by N.	21.6
29.49	...	Severe squalls with hail; very high sea.	30.076	...	79.2	64.2	Variable	12.2
29.40	...	Heavy gale	30.113	...	81.0	64.1	E., E.N.E.	15.8
30.24	29.65	Hurricane squalls; terrific sea.	30.062	29.999	85.1	67.2	Variable between S.E. by E. and E.N.E.	21.3
29.56	...	Strong gale; high sea; squalls with rain.	29.973	...	82.0	72.0	E.S.E. veered through N. to W. and S.E. by E.	11.2
29.45	...	High sea and heavy squalls; lightning to S.W.	29.960	...	82.5	68.0	E.S.E. veered through N. to N.W. by W. W.S.W. and S.E.	15.8
30.12	29.20	Terrific squalls, thunder and lightning; heavy sea and much rain.	29.977	29.743	86.5	74.1	E. S. E. : E. by N. : E. : E.S.E. : backed through S. to N. : N.W. by N.	71.0
30.02	29.60	Il vente tempête. Strong gale. Sudden shift of wind to South.	*29.922	28.922	84.4	75.0	E. S. E. : E. : E. S. E. backed to W.N.W.	71.0
...	...	Hard gale; heavy sea and rain.	30.035	29.924	86.6	70.1	W. N. W. : N. W. by W. : N. : N.W. by N. veered through W. to S.E. : E.N.E. and N.	42.7
30.20	...	Hard squalls; misty rain; confused sea.	29.963	...	85.0	72.6	Variable between S.E. and N.E.	15.3
...	...	Heavy squalls; thick mist; high sea.	29.969	29.943	86.2	73.3	E. : E. by N. : E.N.E.	16.6
30.10	30.00	Heavy squalls and rain: nasty cross sea.	29.996	29.955	86.3	73.8	E.N.E. : E. by N. : E. : E. by S.	27.3

* The centre of this Cyclone passed over Mauritius from the North.

TABLE

Showing approximately the Dates, Localities, &c., of Hurricanes

Date.	Localities.				Vessels by which experienced.	Wind.	
	Latitude.		Longitude.				
	From.	To.	From.	To.		Direction.	Maximum Force.
Dec.	° ′	° ′	° ′	° ′			Beaufort.
18–26	11.46 S.	32.41 S.	63.55 E.	49.24 E.	S. S's. Muttra, Crown of Aragon : H.M.S. troop Ship Avoca : Sierra Blanca : Louis Alfred.	All points	12
19	38.27 S.	...	115.26 E.	...	E. J. Spence	E. by N. : East ...	9
23–27	40. 2 S.	41.30 S.	33.21 E.	50.17 E.	Sierra Colonna : South American.	All points	10
24–25	30. 7 S.	44.10 S.	21.11 E.	30.54 E.	Sierra Ventana : S.S. Clan Mc. Gregor.	W.N.W. through W. to S.W.	10
25	43.49 S.	...	116.26 E.	...	Peru	N.N.W., W.N.W. ..	8
Dec. 28 to Jan. 1 1898	27.50 S.	43.17 S.	38.26 E.	54.57 E.	Sierra Ventana : Greyhound : Sierra Colonna.	N. N. E., E. N. E., E. by S., E.S.E., S. E., S.S.E.	10

LVIII.

and Gales in the Indian Ocean during the year 1897.—*Concluded.*

Barometer.		Remarks.	Mauritius.					
			Barometer.		Temperature.		Wind.	
Highest.	Lowest.		Highest.	Lowest.	Highest.	Lowest.	Direction.	Max. Velocity per hour.
ins.	ins.		ins.	ins.	°	°		Miles.
30.08	28.60	Hurricane with mountainous, confused sea.	29.996	29.835	86.3	73.8	Variable from S. E. through N. to W.	28.6
...	...	Hard gale with heavy sea and rain.	29.996	...	86.3	73.8	E. by S. : E.	16.4
29.20	...	Terrific squalls; high mountainous sea; vivid lightning and thunder.	29.907	29.835	83.9	75.3	E.N.E. veered through N. to W.N.W.	26.4
29.80	29.13	Heavy squalls with hail; high confused sea.	29.888	29.835	82.6	76.1	N.E. by N. veered to W.N.W.	24.7
29.20	...	Heavy rain; lightning to N.E.	29.835	...	82.6	77.2	N.E. by N. veered to W.N.W.	20.4
30.30	29.67	Gusts of hurricane force; terrific sea; thick misty weather; thunder and heavy rain.	30.021	29.934	85.7	74.0	Variable	13.4

Cyclones and Storm-Warnings.

In 1897 there were at least five tropical cyclones in the South Indian Ocean.

I. From the 14th. to the 23rd. of February a cyclone travelled on a S.Wly. course from Latitude 13 ° S. and Longitude 63 ° E. recurving on the 18th. and 19th. in Latitude 18 ° S. and Longitude 51 ° E., and proceeded on a S.Ely course to Latitude 32 ° S. and Longitude 61 ° E.

At the Observatory, Mauritius, the barometer (corrected for temperature and diurnal variation and reduced to sea-level) fell from 29.860 inches at 3 p.m. on the 19th to 29.702 inches at 6 a.m. on the 22nd. The wind was from N.E. and N.N.E. till 2 p.m. on the 21st., backed to N.E. by 8 p.m. and then veered to N.W.b.N. by 8 a.m. on the 22nd. reaching S.E. by 11 p.m. on the 23rd. Its greatest velocity for one hour was 29.3 miles from N.b.E. at 2 a.m. on the 22nd.

Telegrams giving information as to the state of the barometer, wind and weather, were despatched at frequent intervals as follows :—

February 17d. 6h. a.m. " Indications of a cyclonic disturbance to the Northward but no signs at present of its approaching the island."
" 18d. 7h. a.m. " Depression moving very slowly to Westward, may recurve, but at present no danger."
" 22d. 6h. a.m. " The worst is over."
" 8h. a.m. " Centre passing to South at a safe distance."

II. On the 27th. of February at 6 a.m. the following telegram was despatched :—

" A cyclonic depression is approaching the island, precautions are necessary," and at 2 p.m. :—

" At present depression is travelling on a W.S.Wly. course at a safe distance North of Mauritius. No danger for to-night."

On the 28th. at 7 a.m. :—

" Centre well away to N.N.Wrd." and a final telegram was sent at 1 p.m. :— " Wind unsteady though conditions still favorable. No signs at present of cyclone recurving. No more telegrams to-day."

Unfortunately no observations of this cyclone have come to hand, its track therefore has not been determined.

At Mauritius the barometer fell from 30.013 inches at 9 a.m. on the 25th. to 29.893 inches at 1 p.m. on the 27th.

The wind which was from S.E. on the 25th. veered to S.E.b.E. on 26th. and to East on the 27th. Its greatest velocity was 29.1 miles per hour from East.

III. From the 5th. to the 7th. of March a cyclone travelled on a S.Wly. course from about Latitude 16 ° S. and Longitude 67 ° E. to about Latitude 18 ° S. and Longitude 64 ° E. and recurving on the 7th., proceeded on a S.Ely. course to Latitude 22 ° S. and Longitude 71 ° E.

At Mauritius, the weather was fine with a rising barometer until 9 a.m. on the 6th. (29.947 inches) then fell to 29.888 inches at 3 p.m. on the 8th. The wind backed from E.b.N. on the 5th. to E.S.E. on the morning of the 6th. and then remained steady; its greatest velocity for one hour was 22.1 miles from E.S.E. at 11 a.m. on the 6th.

No storm warnings were issued.

IV. From the 4th. to the 7th. of December a cyclone travelled on a S.S.Ely. course from Latitude 13 ° S. and Longitude 56 ° E. to Latitude 26 ° S. and Longitude 62 ° E. passing over Mauritius between 9 and 10 p.m. on the 5th.

On December 4th. the barometer at Mauritius commenced to fall and the weather became unsettled with occasional squalls; at 4 p.m. on the 5th. the following telegram was despatched. " The wind will probably increase during

the night; but no immediate danger." Soon after 5 p.m. an accident happened to the Observatory telegraph wires, and as in the memorable cyclone of April 29, 1892, communication was cut off; however, the following telegrams were issued and conveyed by hand to the Pamplemousses Railway Station.

6h. p.m. "Centre of depression to N.N.W. Conditions more unfavorable, precautions are necessary."

7h. p.m. "The barometer is falling at an accelerated rate, the velocity of the wind will probably increase if the wind veers to N.E. before midnight."

8h. p.m. "The centre is approaching but will pass to the Eastward if the wind continues to back at its present rate."

As the centre of the depression was to the West of North, the slight veering of the wind soon after 3h. p.m. and the accelerated fall of the barometer were considered most unfavorable, after a persistent East wind for 7 hours. Shortly before 8h. p.m. a decided backing set in, and it was thought that, although the centre was not more than 30 or 40 miles to the Northward, it might pass to the Eastward; but the backing did not continue. The barometer continued to fall at an accelerated rate and at 9h. 13m. p.m. was falling at the rate of 0.435 inch per hour. By 8.30 p.m. it was evident that the centre must pass over, or near the Observatory, and as anticipated, between 9.30 and 10 p.m. the centre of a small cyclone passed over the Observatory on a Southerly course. The actual centre of the calm area passing about 5 miles to the Eastward.

Seldom has a Cyclone given so little indication of its close proximity; the depression probably formed on the 3rd. in Latitude 10° S. and Longitude 56° E.

On the 2nd. at noon the schooner *Altona* in Latitude 10°.17′ S. and Longitude 58°.20′ E. had light winds from S.b.W. and cloudy weather, and on the 3rd. she experienced a moderate breeze from Westward; the barometer readings were not recorded.

At the Observatory, Mauritius, the barometer fell from 29.899 inches at 9h. a.m. on the 4th. to 28.917 inches at 9h. 40m. p.m. on the 5th., then rose to 29.995 at 9h. a.m. on the 6th.

From 9h. a.m. on the 4th. to 7h. a.m. on the 5th. the wind was moderate from E.b.S. and E.b.N.; steady at East from 8h. a.m. to 3h. p.m., then veered to E.b.N. by 4½h. p.m. Shortly before 8h. p.m. a decided backing set in, and the wind oscillated between E.S.E. and East till 9h. 58m. p.m.; then suddenly shifted to S.S.W. at 10.h. 0m. p.m., and to South by 10.h. 10m. p.m., again backing, it reached W.b.N. by 10.h. 25m. p.m., and after veering suddenly to S.W.b.S., a further backing set in, the wind reaching N.W.b.W. by 4h. a.m. on the 6th.

The hourly velocity of the wind increased from 13.3 miles at 2h. a.m. on the 5th. to 71.0 miles at 9h. p.m. its mean direction being then from E.S.E. (though from 8h. to 9h. p.m. the wind in the squalls travelled at the rate of from 75 to 82 miles per hour), decreased to 28.7 miles at 10h. p.m., and again increased to 45.9 miles at 11 p.m. when it blew from W. ½ S., after which it decreased to 15.7 miles at 6h. a.m. on 6th.

V. From the 19th. to the 25th. of December a cyclone travelled from Latitude 12° S. and Longitude 62° E. on a S. Wly. course to Latitude 20° S. and Longitude 52° E., and recurving, continued on a S. Ely. course to Latitude 26° S. and Longitude 58° E.

At the Observatory, Mauritius, the barometer fell from 30.006 inches at 9h. a.m. on the 19th. to 29.843 inches at 3 p.m. on the 25th. and then rose to 29.894 at 10 a.m. on the 27th.

The wind which was from East on the 20th. and 21st. gradually veered to E.N.E. on the 22nd., N.E. on the 23rd., N.N.E. on the 24th., reaching N.; N.W. and W. on the 25th. and then remained variable between North and West on the 26th. and 27th. The greatest velocity was at the rate of 28.5 miles per hour between 7.30 and 8.30 p.m. on the 21st. its mean direction being then from East.

Nineteen weather telegrams were despatched at frequent intervals giving information as to the state of the barometer, wind and weather between the 19th. and 25th.

APPENDICES.

I. **Results of Meteorological Observations made at Mahé, Seychelles; and at Port Mathurin, Rodrigues, during the year 1897.**

II. **Résumé of the Observations of the direction of Upper Clouds made at the Royal Alfred Observatory Mauritius from 1877 to 1897.**

III. **Résumé of Actinometric Observations made at the Royal Alfred Observatory Mauritius, during the years 1887-1897.**

IV. **Hourly Observations of Rainfall made at the Royal Alfred Observatory Mauritius, during the years 1888 to 1897.**

APPENDIX I.

SEYCHELLES.

The observations were made by Mr. H. Tregarthen. The cistern of the Barometer (Negretti and Zambra, No. 1191) was 7.45 feet above the sea-level, and its error, including capillary action was +0.003 inch. The observations of temperature were made with verified maximum and minimum thermometers.

TABLE I.

Monthly Means of the Pressure, Temperature, Rainfall and Amount of Cloud during the year 1897.

Months.	Barometer corrected and reduced to sea-level.			Mean Temperature.	Rainfall.	Mean Amount of cloud.
	10 hours.	16 hours.	Means.			
	ins.	ins.	ins.	°	ins.	0—10
January	29.937	29.860	29.898	80.7	16.61	6.6
February	29.933	29.852	29.892	81.3	12.15	6.3
March	29.935	29.845	29.890	81.6	19.10	6.4
April	29.954	29.862	29.908	82.7	4.05	5.5
May	29.931	29.861	29.896	82.5	2.59	5.5
June	29.939	29.874	29.906	80.7	10.72	6.5
July	29.960	29.885	29.922	80.2	4.73	5.6
August	29.975	29.899	29.937	80.7	0.99	5.3
September	29.988	29.904	29.946	81.2	2.50	5.4
October	30.005	29.926	29.965	80.5	3.45	5.8
November	29.955	29.883	29.919	80.4	5.82	5.7
December	29.957	29.878	29.917	79.7	20.03	6.8
For the year	29.956	29.877	29.916	81.0	102.74	5.9

The highest temperature of the air was 87°.5 on May 20 and the lowest 75°.0 on nine occasions.

The highest reading of the barometer (corrected and reduced to sea-level) was 30.062 ins. on October 2, and the lowest 29.763 ins. on March 23.

The greatest rainfall in 24 hours was 8.30 inches on January 9.

The mean temperature for the eleven years 1887-97 was 80°.6.

The mean pressure for the same period was 29.932 inches and the mean rainfall 97.61 inches.

Lightning was observed on 1 day in January, 1 in February, 3 in March, 1 in May, 2 in June, and 5 in December. Thunder was heard on 1 day in January, 3 in February, 3 in March, 2 in April, 3 in May, 3 in June, 1 in September, 1 in October, and 7 in December.

TABLE II.

Relative prevalance of each wind during the year 1897.

Months.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Totals.
January...	9	2	3	...	...	2	12	24	52
February	7	...	4	4	2	...	4	25	46
March	7	3	1	5	...	2	17	17	52
April	3	3	1	21	6	...	9	11	54
May	...	5	8	23	12	4	...	...	52
June	2	3	1	24	15	1	2	...	48
July	...	1	8	39	5	...	...	1	54
August	...	1	8	33	9	1	...	...	52
September	...	...	4	41	5	1	1	...	52
October...	2	4	10	13	15	2	...	6	52
November	1	4	8	2	3	3	3	26	50
December	5	1	2	1	5	4	20	16	54
Totals	36	27	58	206	77	20	68	126	618

RODRIGUES.

The observations were made by Mr, Bretagne. The Barometer (Negretti and Zambra, No. 1190) had an error, including capillary action, of +0.006 inch., and its cistern was 10 feet above the sea-level.

TABLE III.

Monthly Means of the Pressure during the year 1897, and of Temperature, Rainfall, and Amount of Cloud during the year 1897 and for the period 1876-97.

Months.	Barometer corrected and reduced to sea-level.			Mean Temperature.		Rainfall.		Mean Amount of Cloud.	
	9 hours.	15 hours.	Means.	1876 to 1897.	1897.	1876 to 1897.	1897.	1876 to 1897.	1897.
	ins.	ins.	ins.	°	°	ins.	ins.	0—10	0—10
January	29.969	29.920	29.944	81.3	82.8	6.54	4.60	5.5	6.0
February	29.950	29.902	29.926	81.4	82.7	5.41	4.76	5.7	7.0
March	29.948	29.888	29.918	80.7	80.6	5.29	6.47	5.3	6.8
April	30.054	30.002	30.028	79.2	79.4	4.55	2.69	5.2	6.0
May	30.110	30.061	30.085	76.2	77.0	3.54	1.81	5.0	6.2
June	30.151	30.101	30.126	73.3	74.8	4.17	3.10	5.3	6.6
July	30.205	30.151	30.178	72.1	74.4	2.70	1.99	5.2	6.2
August	30.220	30.165	30.192	71.8	74.3	3.53	2.48	5.2	6.0
September ...	30.233	30.170	30.201	73.3	73.5	1.61	2.22	5.0	6.3
October	30.182	30.122	30.152	75.4	76.0	1.34	0.71	4.9	5.1
November... ...	30.085	30.026	30.055	77.6	79.6	2.26	3.20	5.0	5.5
December	30.044	29.993	30.018	80.1	81.9	2.94	1.31	5.1	5.6
For the year ...	30.096	30.042	30.069	76.9	78.1	43.88	35.34	5.2	6.1

The highest reading of the Barometer (corrected and reduced to sea-level) was 30.378 inches on September 7, and the lowest 29.583 inches on January 27.

The highest temperature was 89°.2 on February 6 and 13, and the lowest 65°.0 on September 6.

The greatest rainfall in 24 hours was 2.85 inches on March 16.

Lightning and thunder occurred on November 26.

TABLE IV.

Relative prevalence of each wind during the year 1897.

Months.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Totals.
January	9	28	14	3	3	1	3	1	62
February	4	1	24	17	5	...	...	2	53
March	...	...	14	29	6	5	5	2	61
April	...	...	23	34	3	...	...	...	60
May	...	3	20	32	4	...	...	1	60
June	...	4	20	30	4	...	...	...	58
July	...	2	24	28	6	...	...	...	60
August	...	2	25	29	5	...	...	...	61
September... ...	...	3	23	26	6	...	1	...	59
October	2	13	20	21	5	...	...	...	61
November... ...	3	13	21	19	2	...	2	...	60
December	4	23	29	2	...	...	...	2	60
Totals... ...	22	92	257	270	49	6	11	8	715

APPENDIX II.

Observations of Upper Clouds made at the Royal Alfred Observatory, during the years 1877 to 1897.

The Upper Clouds include the following varieties : Cirrus, Cirro-stratus, Cirro-cumulus.

Except when very conflicting directions have been observed on one day, the mean direction for the day has been used.

From June to September the results are less accurate than for the remaining months, depending as they do on comparatively few observations.

The Mean Monthly directions have been computed by Lambert's formula.

TABLE *a*.

Résumé of Observations of the Direction of Upper Clouds. January 1877-1897.

Years,	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	...	...	...	...	...	1	...	2	...	...	1	1	...	...	...	...	5
1878	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	3
1879	...	...	3	2	...	...	...	...	...	...	...	...	...	...	...	1	6
1880	2	1	...	...	...	...	...	1	...	...	...	...	2	1	2	6	15
1881	...	...	...	...	...	...	...	...	3	1	3	5	1	6	2	...	21
1882	...	1	1	1	...	...	...	...	...	...	...	...	3	...	4	...	10
1883	...	...	...	...	...	...	...	...	...	...	2	11	19	9	3	1	45
1884	...	...	...	...	...	...	...	...	4	1	...	2	8	1	...	...	16
1885	...	1	...	...	...	...	...	...	1	1	1	...	7	1	...	...	12
1886	...	1	...	...	3	2	...	1	...	...	1	5	15	4	...	...	32
1887	1	...	2	...	...	...	2	...	2	3	5	2	10	2	2	3	34
1888	1	...	...	1	...	...	...	1	...	...	1	3	3	3	5	4	22
1889	3	...	...	...	...	...	...	...	...	2	...	8	16	5	1	4	39
1890	4	1	2	...	...	...	...	...	...	...	1	3	4	4	1	2	22
1891	1	2	...	...	...	...	...	...	...	...	...	2	3	2	4	1	15
1892	4	...	...	...	...	...	...	...	...	...	2	2	4	2	4	2	20
1893	...	1	...	3	2	...	3	1	...	2	1	4	1	2	2	...	22
1894	2	...	...	1	...	...	...	...	...	...	...	1	1	...	...	...	5
1895	1	...	...	...	1	...	2	3	1	2	1	3	5	...	1	2	22
1896	6	...	1	...	...	...	...	...	1	1	1	1	5	...	1	1	18
1897	...	...	...	...	...	...	...	...	1	1	...	6	8	3	2	...	21
Sums	25	8	9	8	6	3	7	9	13	14	20	60	116	46	34	27	405

TABLE *b*.

Résumé of Observations of the Direction of Upper Clouds. February 1877-1897.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
1878	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
1879	...	2	...	...	...	...	...	...	...	...	1	3	...	...	...	...	6
1880	1	4	...	...	...	...	...	...	...	...	...	...	2	2	3	1	13
1881	...	1	1	...	2	...	...	...	...	...	...	2	3	...	...	...	9
1882	...	2	1	...	...	...	...	...	...	...	...	2	6	2	4	3	20
1883	1	1	...	...	...	...	...	...	2	2	7	...	4	4	...	...	21
1884	5	...	1	1	...	...	...	...	...	...	3	2	4	1	...	...	17
1885	1	...	...	1	...	...	1	...	...	...	2	2	...	...	...	3	10
1886	2	...	...	...	...	...	2	1	1	2	...	4	2	...	...	1	15
1887	1	...	...	...	1	2	...	1	4	...	3	1	8	4	...	2	27
1888	9	...	...	...	...	...	...	...	...	1	7	6	9	2	3	4	41
1889	1	...	...	...	1	...	...	...	1	...	1	10	8	...	...	...	22
1890	...	...	...	...	...	...	...	...	...	...	1	4	7	1	2	...	15
1891	...	1	...	1	...	...	...	1	...	1	1	1	...	1	1	...	8
1892	...	...	1	...	2	...	...	...	...	2	2	2	1	5	...	1	16
1893	2	...	...	...	1	...	1	...	1	...	2	1	2	1	...	...	11
1894	1	1	1	1	...	1	...	...	...	2	...	1	1	3	...	1	13
1895	1	...	...	...	...	...	...	...	1	...	...	...	1	3	1	2	9
1896	3	...	...	...	...	1	...	...	...	...	...	3	5	2	2	3	19
1897	2	...	...	1	1	...	...	...	...	...	2	2	4	4	...	3	19
Sums	30	12	5	5	8	4	4	3	10	10	32	46	67	37	16	24	313

TABLE c.

Résumé of Observations of the Direction of Upper Clouds. March 1877 to 1897.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	1	1	...	2	2	2	...	...	...	...	...	...	...	...	...	...	8
1878	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1879	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	2
1880	1	...	...	...	...	...	...	...	...	...	...	6	5	...	...	2	14
1881	...	1	...	...	...	...	...	...	...	...	...	3	7	4	2	2	19
1882	1	2	1	...	...	...	...	...	2	...	...	1	12	3	6	1	29
1883	5	...	1	...	1	...	...	3	2	2	4	4	3	5	1	4	35
1884	4	1	...	...	...	...	...	...	...	2	3	9	7	6	2	1	35
1885	...	...	...	...	...	...	...	...	1	1	5	1	3	9	3	...	23
1886	...	...	...	...	...	...	...	...	...	1	1	6	19	8	...	1	36
1887	1	1	...	...	1	1	...	...	4	3	3	4	6	2	2	1	29
1888	1	...	...	1	...	...	...	...	1	3	1	4	6	9	15	...	41
1889	...	...	...	...	...	...	...	...	...	...	6	3	10	4	4	...	27
1890	4	...	...	...	...	...	...	...	...	...	1	4	13	14	4	4	44
1891	...	...	...	...	...	...	...	...	...	...	1	4	11	5	3	4	28
1892	1	1	1	...	...	...	...	...	...	...	1	1	4	4	4	2	19
1893	...	...	...	...	1	...	1	1	2	...	4	...	7	2	1	...	19
1894	...	...	2	...	...	...	...	...	1	1	...	3	1	...	...	1	9
1895	...	...	...	...	...	...	...	1	1	4	...	4	3	...	...	...	13
1896	1	...	...	...	...	...	...	...	...	...	1	1	1	4	1	...	9
1897	2	...	...	...	...	...	...	...	...	...	...	1	4	6	2	1	16
Sums	22	7	5	3	5	3	1	6	14	17	31	60	122	85	50	24	455

TABLE *d.*

Résumé of Observations of the Direction of the Upper Clouds. April 1877 to 1897.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	...	...	...	...	...	...	...	1	1	...	...	...	2	2	...	...	6
1878	...	...	...	...	...	...	...	...	...	1	1	1	...	1	...	...	4
1879	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1880	...	...	...	...	...	...	...	...	...	...	...	...	3	2	2	...	7
1881	...	...	...	...	...	...	...	...	...	...	...	1	7	9	6	...	23
1882	1	...	...	2	1	...	...	...	...	...	...	...	2	5	4	...	15
1883	5	...	...	...	...	...	...	...	2	...	...	...	1	9	9	6	32
1884	2	...	...	...	...	...	...	...	...	2	2	...	8	12	6	3	35
1885	...	...	1	...	1	...	...	...	...	...	...	1	2	6	3	...	14
1886	1	...	...	2	...	...	...	3	...	1	1	5	16	2	9	6	46
1887	2	...	1	...	...	...	...	...	1	1	...	1	3	5	3	1	18
1888	...	...	...	...	...	...	...	...	2	...	...	...	6	7	5	4	24
1889	...	...	...	...	...	...	...	...	...	...	...	2	10	7	3	...	22
1890	6	...	1	...	...	...	...	...	...	...	...	3	1	6	4	2	23
1891	2	...	...	1	2	1	...	...	...	...	...	1	16	9	2	...	34
1892	...	...	...	...	...	...	...	...	1	...	2	1	2	3	1	2	12
1893	...	...	...	1	...	...	...	3	1	...	...	1	3	7	4	...	20
1894	...	1	2	...	...	...	...	...	...	1	...	1	5	1	...	1	12
1895	...	...	...	...	...	...	...	...	...	...	...	3	3	2	3	1	12
1896	...	...	...	1	...	...	...	...	...	...	...	1	5	4	1	1	13
1897	...	...	...	...	...	...	...	...	...	...	1	...	1	5	3	...	10
Sums	19	1	5	7	4	1	0	7	5	6	7	22	96	104	68	27	382

TABLE *e.*

Résumé of Observations of the Direction of Upper Clouds. May 1877-1897.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	...	...	...	...	...	1	...	...	...	...	...	...	...	4	...	...	5
1878	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	8	11
1879	...	...	...	...	...	...	...	...	...	1	...	...	...	...	6	5	12
1880	...	...	...	...	...	...	...	...	...	1	...	2	...	15	...	...	18
1881	1	...	...	...	...	...	...	...	...	...	...	...	1	5	4	2	13
1882	1	...	1	...	...	...	...	...	...	...	...	...	3	1	1	...	7
1883	...	1	...	...	1	...	...	...	...	...	...	2	7	4	4	7	26
1884	...	...	...	...	...	...	...	...	...	...	...	...	7	1	8	3	19
1885	...	...	1	...	...	...	...	...	...	1	3	...	1	3	1	3	13
1886	2	...	1	...	2	1	1	...	2	...	1	...	9	3	1	1	24
1887	5	1	2	...	...	...	...	...	...	...	...	1	5	10	...	1	25
1888	...	...	...	...	...	...	...	...	...	...	...	1	6	5	3	...	15
1889	...	...	...	...	...	...	...	...	...	...	1	...	14	5	3	...	23
1890	...	...	...	...	...	...	...	...	...	...	...	...	...	4	3	...	7
1891	...	...	...	...	...	...	...	...	...	...	...	...	2	2	1	...	5
1892	3	...	...	1	...	...	...	...	...	...	...	...	...	4	4	2	14
1893	2	1	1	...	...	1	...	...	...	...	...	...	6	6	1	...	18
1894	...	...	1	...	...	...	...	...	...	...	...	...	6	2	3	1	13
1895	...	...	...	1	...	...	...	...	...	...	...	1	2	2	2	1	9
1896	...	...	1	...	...	...	...	...	...	...	...	1	3	5	4	...	14
1897	...	...	...	1	...	...	...	...	...	...	...	...	...	5	4	1	11
Sums... ...	14	3	8	3	3	3	1	0	2	3	6	8	72	86	55	35	302

TABLE *f*.

Résumé of Observations of the Directions of Upper Clouds. June 1877-1897.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	2
1878	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1879	...	...	...	...	...	...	...	...	...	...	1	2	3	1	2	3	12
1880	1	...	...	...	...	...	...	...	...	...	...	...	5	1	2	6	15
1881	...	...	...	...	...	...	...	...	...	...	...	1	...	2	4	6	13
1882	...	...	...	...	1	1	...	...	...	...	1	1	...	1	...	1	6
1883	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
1884	...	...	...	...	...	...	...	...	4	...	...	...	1	3	4	1	13
1885	...	...	1	...	...	...	...	...	3	...	...	...	1	1	1	...	7
1886	2	...	...	...	1	1	1	...	...	...	1	1	3	3	4	3	20
1887	...	1	1	2	1	...	...	...	...	...	...	...	...	...	1	...	6
1888	1	...	...	...	...	...	...	...	...	...	1	...	2	1	2	...	7
1889	...	...	...	...	...	...	...	...	...	...	...	...	5	3	...	...	8
1890	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	1	4
1891	...	...	...	...	...	...	...	...	...	...	...	1	1	1	2	...	5
1892	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2
1893	...	...	...	...	2	1	2	...	...	...	...	...	1	...	...	...	6
1894	1	...	1	1	...	...	...	...	...	2	...	...	...	...	...	1	6
1895	1	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	5
1896	...	1	1	...	...	...	...	...	...	...	...	...	1	2	...	1	6
1897	2	...	1	...	...	...	...	1	...	...	1	...	1	2	2	2	12
Sums	10	3	5	4	5	3	3	1	7	2	5	6	26	24	27	26	157

TABLE g.

Résumé of Observations of the Direction of Upper Clouds. July 1877 to 1897.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W	S.W	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	...	1	1	1	...	1	1	...	...	...	...	...	...	...	...	...	5
1878	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	10
1879	...	...	...	...	1	1	...	...	...	...	...	...	4	...	1	2	9
1880	...	...	...	...	...	...	...	1	2	1	...	...	...	...	1	1	6
1881	1	3	1	...	...	...	...	...	1	...	...	1	...	...	...	...	7
1882	...	...	...	3	1	...	...	...	...	...	1	3	3	2	1	2	16
1883	...	...	1	...	...	...	...	...	...	...	...	...	2	4	...	...	7
1884	...	...	...	...	...	...	...	1	...	...	...	...	1	...	3	2	7
1885	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	2
1886	...	...	4	...	2	...	...	...	1	2	...	1	2	...	2	2	16
1887	1	...	...	...	1	...	...	...	...	...	1	...	...	...	2	...	5
1888	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	2
1889	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	2
1890	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1891	1	...	...	...	...	...	...	...	...	...	...	...	1	3	1	...	6
1892	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	2
1893	1	...	...	2	...	...	1	...	...	...	...	...	...	...	...	...	4
1894	...	...	1	...	...	...	...	...	...	...	...	...	2	...	...	...	3
1895	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	3
1896	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2
1897	1	2	2	...	...	...	...	...	...	...	...	1	1	1	...	1	9
Sums	6	6	10	7	5	2	2	2	4	4	3	7	21	11	13	20	123

TABLE *h*.

Résumé of Observations of the Direction of Upper Clouds. August 1877 to 1897.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3
1878	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4
1879	...	...	2	...	3	1	1	2	...	...	...	1	...	...	...	...	10
1880	...	...	...	2	...	3	...	1	...	...	...	...	...	1	1	...	8
1881	1	...	...	...	...	...	...	...	2	...	1	...	...	...	...	2	6
1882	6	...	...	1	...	...	...	2	1	1	...	...	...	...	...	2	13
1883	3	2	1	...	...	...	...	...	...	...	...	...	...	4	4	...	14
1884	...	...	...	1	...	...	...	...	1	...	...	...	...	3	2	...	7
1885	...	...	2	2	2	1	...	...	...	...	1	...	2	1	1	...	12
1886	2	1	2	...	...	...	...	...	...	...	...	...	6	1	5	2	19
1887	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
1888	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	3
1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1890	...	...	...	3	...	...	...	...	3	1	1	...	...	...	...	...	8
1891	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3
1892	1	...	...	...	...	...	...	...	...	...	1	...	...	...	1	2	5
1893	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	3
1894	1	1	1	1	...	...	...	...	...	...	1	...	...	...	1	1	7
1895	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	2
1896	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1
1897	...	1	...	1	...	...	...	...	...	...	...	...	...	2	...	2	6
Sums	18	5	11	12	5	5	1	6	7	2	5	2	9	12	17	18	135

TABLE 4.

Résumé of Observations of the Direction of Upper Clouds. September 1877-1897.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	...	...	...	1	1	...	...	...	...	...	...	...	...	4	2	...	8
1878	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1879	1	1	...	1	...	...	1	4	...	1	2	1	...	...	2	1	15
1880	1	2	...	...	2	2	...	...	...	2	...	...	...	1	...	...	10
1881	...	1	1	1	...	...	...	1	...	...	1	...	...	...	...	1	6
1882	2	1	3	5	...	...	...	...	...	...	...	...	...	...	8	3	22
1883	2	...	4	...	...	...	...	...	...	...	...	...	1	3	3	...	13
1884	...	...	...	1	...	...	...	1	3	...	...	...	...	...	...	...	5
1885	...	...	3	2	1	...	...	1	...	...	...	...	1	...	1	...	9
1886	1	...	...	...	...	1	...	1	1	...	1	...	1	1	...	...	7
1887	2	...	1	1	...	...	...	...	2	...	...	...	...	1	1	...	8
1888	...	...	...	...	...	...	...	...	...	...	1	...	3	7	1	1	13
1889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1890	2	1	...	1	...	...	...	...	...	...	...	...	...	...	6	2	12
1891	1	...	...	...	...	...	...	...	1	1	1	1	5	2	...	...	12
1892	...	...	1	2	3	1	...	...	...	...	...	...	...	...	...	...	7
1893	...	...	...	2	...	...	...	...	...	...	...	...	1	...	...	...	3
1894	...	...	4	1	...	...	...	...	...	...	...	...	...	...	1	...	6
1895	...	...	...	...	...	...	...	...	...	...	...	...	2.	1	...	...	3
1896	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1897	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sums	12	6	17	18	7	4	1	8	7	4	6	2	14	20	25	8	159

TABLE *j*.

Résumé of Observations of the Direction of Upper Clouds. October 1877-1897.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	...	...	2	1	...	5	1	...	...	...	...	1	...	6	...	...	16
1878	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	2
1879	...	2	...	2	1	2	1	1	...	1	...	...	...	1	4	...	15
1880	...	2	...	1	4	1	...	3	1	...	...	3	1	4	2	...	22
1881	1	1	...	...	...	...	...	...	...	...	...	...	...	7	10	...	19
1882	...	1	4	6	...	...	1	3	1	...	...	...	...	...	...	...	16
1883	...	...	3	...	...	...	...	...	...	...	...	...	2	2	...	...	7
1884	2	1	2	...	...	...	...	...	1	1	4	2	5	6	3	1	28
1885	2	...	2	1	...	...	...	...	...	...	...	...	...	6	3	1	15
1886	2	...	...	5	1	2	1	2	...	...	...	...	1	1	1	3	19
1887	2	...	1	...	...	...	...	...	...	...	...	...	4	5	10	5	27
1888	1	...	...	...	...	...	...	...	1	...	...	1	8	7	1	...	19
1889	...	...	1	...	...	...	...	...	...	...	1	...	1	...	...	...	3
1890	3	...	1	4	...	...	...	...	...	...	...	...	2	6	6	4	26
1891	...	...	1	...	...	...	...	...	1	...	1	...	3	10	5	...	21
1892	...	...	...	...	5	1	...	...	1	...	1	2	...	...	...	...	10
1893	2	...	2	1	...	...	...	...	1	...	1	1	2	...	3	...	13
1894	...	...	1	...	...	...	...	...	...	...	...	1	4	3	1	1	11
1895	1	...	...	...	...	...	...	...	...	...	...	1	3	2	...	...	7
1896	2	...	...	...	...	...	...	1	1	...	...	...	2	5	1	...	12
1897	...	...	...	...	...	...	...	...	...	...	...	...	...	6	4	1	11
Sums	18	7	20	22	11	11	5	10	8	2	8	12	38	77	54	16	319

TABLE *k*.

Résumé of Observations of the Direction of Upper Clouds. November 1877-97.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	...	...	...	2	...	...	...	2	...	...	...	1	...	14	2	1	22
1878	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
1879	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2
1880	...	1	1	1	...	...	...	1	...	...	...	...	...	2	...	...	6
1881	...	...	1	...	1	...	...	...	1	2	...	...	5	1	3	1	15
1882	1	1	3	2	...	...	2	2	...	1	...	...	4	10	2	1	29
1883	3	...	1	...	...	...	...	...	...	1	1	...	...	...	6	1	13
1884	...	...	...	...	1	...	...	...	1	...	...	...	4	...	1	...	7
1885	...	...	1	...	2	...	...	...	...	1	...	1	...	5	2	1	13
1886	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	2
1887	1	...	...	...	...	...	...	...	...	...	...	...	15	1	1	...	18
1888	...	...	...	...	...	...	...	...	...	...	3	2	9	11	5	1	31
1889	...	...	...	...	...	...	...	...	1	...	1	...	3	...	1	...	6
1890	...	...	...	...	...	...	...	...	1	...	2	...	8	3	3	2	19
1891	...	...	...	...	...	...	...	...	...	...	...	...	2	5	5	4	16
1892	1	...	...	...	5	2	1	...	...	...	1	1	1	2	1	1	16
1893	2	1	1	1	...	...	...	1	1	1	...	1	1	1	...	1	12
1894	...	...	1	...	...	...	...	...	...	...	...	3	3	1	...	...	8
1895	...	...	...	...	...	...	...	...	...	...	...	5	3	3	1	...	12
1896	1	...	...	...	...	...	...	...	...	...	...	1	4	6	1	...	13
1897	1	...	...	...	...	...	...	...	...	...	...	...	2	1	1	...	5
Sums	10	4	9	6	9	2	3	7	6	6	8	15	64	68	35	14	266

TABLE *l.*

Résumé of Observations of the Direction of Upper Clouds. December 1877-97.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	...	...	...	...	...	...	1	...	...	...	1	3	3	11	1	...	20
1878	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	3
1879	1	...	...	...	...	...	...	...	2	...	...	...	4	2	...	...	9
1880	1	1	...	...	...	...	...	...	...	...	1	2	3	4	1	1	14
1881	...	...	1	1	3	...	...	...	...	1	...	6	13	13	3	...	41
1882	...	...	...	...	...	...	...	...	...	1	...	...	9	9	2	...	21
1883	4	...	1	...	...	...	...	...	...	...	1	...	5	3	3	3	20
1884	...	...	1	...	...	...	...	...	...	...	...	2	5	4	...	...	12
1885	5	...	...	...	2	1	...	...	...	...	...	...	4	3	3	3	21
1886	1	...	...	...	1	1	5	...	2	...	1	1	7	1	...	...	20
1887	1	...	...	...	1	...	...	...	...	...	...	...	14	2	4	1	23
1888	...	...	...	...	...	...	...	...	3	1	1	1	11	4	4	...	25
1889	1	...	...	...	...	...	...	...	...	...	...	...	3	4	1	2	11
1890	...	...	...	...	...	...	...	...	...	...	...	...	15	7	7	1	30
1891	2	...	1	...	...	...	...	...	...	4	4	5	2	3	1	1	23
1892	2	2	2	1	1	...	...	1	1	2	2	2	4	...	1	...	21
1893	1	...	...	1	...	...	...	1	...	2	4	1	3	...	...	...	13
1894	...	...	...	...	1	...	1	...	1	...	1	1	2	5	2	3	17
1895	...	...	...	...	...	...	...	1	...	1	2	2	5	3	1	1	16
1896	1	...	1	...	...	...	...	...	...	...	...	...	6	3	...	...	11
1897	1	1	...	...	1	...	...	...	...	...	...	...	1	...	...	2	6
Sums	21	4	7	3	10	2	7	3	9	12	18	27	119	81	34	20	377

TABLE *m*.

Résumé of Observations of the Direction of Upper Clouds, for the Years 1877 to 1897.

Years.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Totals.
1877	1	2	3	8	3	10	3	5	1	0	2	6	5	43	7	2	101
1878	0	0	0	1	0	0	1	0	0	1	2	3	1	4	2	24	89
1879	2	6	5	5	5	4	3	8	2	3	4	8	11	5	15	12	98
1880	7	11	1	4	6	6	0	7	3	4	1	13	21	33	14	17	148
1881	4	7	5	2	6	0	0	1	7	4	5	19	37	47	34	14	192
1882	12	8	14	20	3	1	3	7	4	3	2	7	42	33	32	13	204
1883	25	4	12	0	2	0	0	3	6	5	15	17	44	47	33	22	235
1884	13	2	4	3	1	0	0	2	14	6	12	17	50	37	29	11	201
1885	8	1	11	6	8	2	1	1	5	5	12	5	22	35	18	11	151
1886	13	2	7	7	10	8	10	9	8	6	7	23	81	24	22	19	256
1887	18	3	8	3	5	3	2	1	13	7	12	9	65	32	26	14	221
1888	14	0	0	2	0	0	0	1	7	5	15	18	66	56	44	15	243
1889	5	0	1	0	1	0	0	0	2	2	11	23	70	28	14	6	163
1890	19	3	4	8	0	0	0	0	4	1	6	14	50	46	37	18	210
1891	9	3	2	2	2	1	0	1	2	6	8	15	46	43	25	11	176
1892	12	3	5	5	16	4	1	1	3	4	12	12	17	20	17	12	144
1893	10	2	5	12	7	2	8	8	6	5	12	9	27	19	11	1	144
1894	5	3	15	5	1	1	1	0	2	6	2	11	25	15	8	10	110
1895	4	0	1	1	1	0	2	5	3	7	3	20	29	18	11	8	113
1896	15	1	5	1	0	1	0	1	2	1	2	8	33	31	11	6	118
1897	9	4	3	3	2	0	0	1	1	1	4	10	22	35	18	13	126
Sums... ...	205	65	111	98	79	43	35	62	95	82	149	267	764	651	428	259	3393
Means ...	6.1	1.9	3.3	2.9	2.3	1.3	1.0	1.8	2.8	2.4	4.4	7.9	22.5	19.2	12.6	7.6	...

TABLE *n*.

Showing the Mean Monthly Direction of the Upper Clouds for the period 1877-1897, Computed by Lambert's Formula.

Months.	Direction.	Variation.	Number of Observations.
	°	°	
January	N. 82 W.	S. 13	405
February	N. 80 W.	S. 11	313
March	N. 83 W.	S. 14	455
April	N. 68 W.	N. 1	382
May	N. 61 W.	N. 8	302
June	N. 60 W.	N. 9	157
July	N. 43 W.	N. 26	123
August	N. 15 W.	N. 54	135
September	N. 20 W.	N. 49	159
October	N. 48 W.	N. 21	319
November	N. 70 W.	S. 1	266
December	N. 78 W.	S. 9	377
	°		
Mean	N. 69 W.	.....	Sum 3.393

TABLE *o*.

Showing the Mean Annual Direction of the Upper Clouds, for each Year during the period 1877-1897, computed by Lambert's Formula.

Years.	Direction.	Variation.
	°	°
1877	N. 62 W.	N. 7
1878	N. 41 W.	N. 28
1879	N. 49 W.	N. 20
1880	N. 59 W.	N. 10
1881	N. 68 W.	N. 1
1882	N. 47 W.	N. 22
1883	N. 63 W.	N. 6
1884	N. 78 W.	S. 9
1885	N. 62 W.	N. 7
1886	N. 80 W.	S. 11
1887	N. 69 W.	0
1888	N. 74 W.	S. 5
1889	N. 85 W.	S. 16
1890	N. 60 W.	N. 9
1891	N. 72 W.	S. 3
1892	N. 57 W.	N. 12
1893	N. 90 W.	S. 21
1894	N. 58 W.	N. 11
1895	N. 88 W.	S. 19
1896	N. 64 W.	N. 5
1897	N. 61 W.	N. 8
	°	
Mean	N. 69 W.	

APPENDIX III.

Results of the Actinometric Observations made at the Royal Alfred Observatory from 1887 to 1897.

At the suggestion of Governor Sir John Pope Hennessy, two Balfour Stewart Actinometers, were ordered from England in 1884 and arrived in the Colony the following year.

The original intention was to make observations at a high level station as well as at the Observatory, Pamplemousses ; but as no branch Observatory has up to the present been established, this plan has not been carried out. Since 1885, however, Actinometric observations have been made at the Observatory on every occasion when the sky, in the neighbourhood of the Sun, has been free from cloud at, or near, apparent noon.

The Actinometer is thus described by Prof Balfour Stewart in Nature (Vol. XIII page 118).

The instrument consists of a large mercurial thermometer with its bulb in the middle of a cubical cast iron chamber, which is of such massive material that its temperature will remain sensibly constant for some time. The chamber with its thermometer has a motion in Azimuth and Altitude ; a 3 inch lens, of 12 inch focal length is attached by means of a rod to the cubical chamber, so as to move with it ; thus the whole instrument may be easily moved into such a position that the lens as well as the upper side of the chamber, which is parallel to the plane of the lens, may face the sun and an image of the sun be thrown upon the bulb through a hole in the upper side of the chamber, which can be opened at pleasure by means of a sliding piece of metal.

The observations are made by alternately noting the temperature after two minutes *non-exposure* and two minutes *exposure* to the sun's rays.

The following is a specimen ; the observations were made by Mr. Figon on December 12, 1898.

Time.	Readings.	Change.		Reduced Sun.	Altitude.	Remarks.
		Shade.	Sun.			
h. m.	°	°	°	°	° ′	
11.39	85.40	+ 0.20	...	...	...	Clear near sun.
11.41	85.60	...	+ 9.47	10.17	86—20	,, ,, ,,
11.43	95.07	— 1.60	...	...	...	,, ,, ,,
11.45	93.47	...	+ 8.02	10.17	...	,, ,, ,,
11.47	101.49	— 2.70	...	...	...	,, ,, ,,
11.49	98.79	...	+ 7.12	10.15	86—50	,, ,, ,,
11.51	105.91	— 3.36	...	...	...	,, ,, ,,
11.53	102.55	...	+ 6.56	10.16	...	,, ,, ,,
11.55	109.11	— 3.85	...	...	...	,, ,, ,,
11.57	105.26	...	+ 6.17	10.21	...	,, ,, ,,
11.59	111.43	— 4.24	...	...	86—12	,, ,, ,,
12.01	107.19					
	Mean			10.17	86—27	

It will be seen that during the first two minutes in the shade the temperature rose 0°.20, and after an exposure of two minutes in the sun's rays a further increase of 9°.47 occurred, while during the next two minutes in the shade the temperature fell 1°.60.

Thus the 0°.20 and 1°.60 are the amounts of heat lost or gained from radiation and convection combined, during the two minutes in shade before and after an exposure to the sun's rays for two minutes, and if we assume that the amount of heat lost from the above causes while the instrument is being heated by the sun's rays to be the mean of these two quantities, we have for the total heating effect for an exposure of two minutes (9°.47 + 0°.70) = 10°.17, and the mean of the five complete observations gives us the same value. The very close agreement among the observations tends to show that the above assumption is correct, the state of the sky being constant.

In the following table will be found the mean results of the observations from 1887—1897.

The mean monthly values, have been multiplied by the square of the earth's radius vector at the middle of each month. The values thus obtained are placed in the last horizontal column but three, marked *a*, and furnish 12 equations of the form

$$A = \frac{P}{a^{\frac{d\,B'}{B}}}$$

or $\log A = \log P - \frac{d\,B'}{B} \log a.$

which, treated by the method of least squares, gives $A = 10°.560$
$a = 0.888$

where

A = the original heat.
P = the heat received at the earth's surface.
d = secant of Sun's zenith distance.
$\frac{B'}{B}$ = the ratio of the actual barometer reading to the mean annual reading at sea level.
a = cœfficient of transmissibility.

Now substituting the value of *a* in each equation we find that the mean monthly values of A thus formed (horizontal column *b*) furnish a curve (column *c*) which follows very closely the (inverted) annual humidity curve (column *d*) clearly showing that the amount of heat received from the sun depends upon, and varies inversely as the amount of moisture in the air.

Results of Actinometric Observations 1887 to 1897.

Months.	January.		February.		March.		April.		May.		June.	
Years.	Radiation.	Altitude.	Radiation.	Altitude.	Radiation.	Altitude.	Radiation.	Altitude.	Radiation.	Altitude.	Radiation.	Altitude.
	°	° ′	°	° ′	°	° ′	°	° ′	°	° ′	°	° ′
1887 . .	9.28	86.35	9.29	83.05	9.03	69.25	8.68	60.25	8.59	51.55	8.63	46.45
1888 ...	9.52	88.15	9.53	82.30	9.12	68.50	9.01	60.30	8.94	50.25	8.76	46.50
1889 ...	9.59	87.25	9.43	85.30	...	...	9.04	56.10	9.04	51.15	9.04	46.40
1890 ...	9.91	87.30	9.66	80.40	9.25	71.55	8.70	55.30	8.51	50.50	8.18	47.00
1891 ...	10.08	86.20	9.01	82.28	9.06	73.32	8.85	56.46	8.75	49.55	8.51	47.15
1892 ...	9.20	87.31	8.97	81.00	8.85	68.12	8.90	59.22	8.88	54.00	8.55	46.32
1893 ...	9.70	87.05	...	...	9.19	71.10	8.95	63.40	8.43	50.29	8.69	46.55
1894 ...	...	...	9.73	85.25	9.38	69.53	8.94	58.32	8.94	49.57	8.76	46.57
1895 ...	9.74	87.22	9.80	83.34	...	...	9.16	61.35	8.52	48.19	8.69	46.32
1896 ...	9.84	87.45	10.07	83.03	9.64	70.41	9.07	60.34	9.01	48.49	8.77	46.31
1897 ...	9.94	88.29	9.79	78.34	9.67	70.04	9.46	58.35	9.15	51.11	9.08	46.34
	°	°	°	°	°	°	°	°	°	°	°	°
Means.	9.68	87.4	9.53	82.6	9.24	70.4	8.98	59.2	8.80	50.6	8.70	46.8
a ...	9.37	...	9.30	...	9.15	...	9.05	...	9.00	...	8.98	...
b ...	10.55	...	10.48	...	10.37	...	10.38	...	10.49	...	10.57	...
c ...	− 1	...	− 8	...	−19	...	−18	...	− 7	...	+ 1	...
d ...	−18	...	−24	...	−36	...	−31	...	−12	...	+13	...

Results of Actinometric Observations 1887 to 1897.—*Concluded.*

Months.	July.		August.		September.		October.		November.		December.	
Years.	Radiation.	Altitude.	Radiation.	Altitude.	Radiation.	Altitude.	Radiation.	Altitude.	Radiation.	Altitude.	Radiation.	Altitude.
	°	° ′	°	° ′	°	° ′	°	° ′	°	° ′	°	° ′
1887 ...	8.49	49.30	8.88	55.55	9.07	66.55	9.42	81.05	9.38	87.00	9.54	86.45
1888 ...	8.79	49.10	8.81	55.30	9.23	67.15	9.57	82.00	9.47	87.10	9.64	87.10
1889 ...	8.76	49.10	9.07	57.30	9.42	67.15	9.79	79.25	9.90	87.00	10.00	86.25
1890 ...	8.69	50.05	8.78	53.10	8.93	67.25	9.38	76.40	...	...	9.41	86.55
1891 ...	8.75	48.37	8.94	55.12	8.89	68.05	8.79	77.07	9.14	87.26	9.34	86.35
1892 ...	8.65	48.25	8.76	57.01	8.91	70.55	9.20	76.20	9.68	84.55	9.89	85.45
1893 ...	8.68	49.02	8.90	54.42	9.12	66.05	9.01	73.45	9.64	85.50	9.86	86.20
1894 ...	8.88	49.17	8.79	54.35	9.49	67.12	9.87	76.20	10.04	87.48	9.83	86.45
1895 ...	8.90	49.34	8.82	53.34	9.72	68.21	9.73	78.39	9.44	86.18	10.12	86.28
1896 ...	8.71	48.15	9.40	58.18	9.50	64.38	9.86	80.18	10.21	88.16	10.14	86.23
1897 ...	9.06	49.28	9.39	58.47	9.42	66.16	9.88	79.00	10.12	86.45	9.84	86.22
	°	°	°	°	°	°	°	°	°	°	°	°
Means.	8.76	48.2	8.96	55.8	9.25	67.3	9.50	78.2	9.70	86.8	9.78	86.5
											°	
a ...	9.05	...	9.18	...	9.35	...	9.44	...	9.48	...	9.47	...
b ...	10.62	...	10.60	...	10.67	...	10.66	...	10.68	...	10.66	...
c ...	+ 6	...	+ 4	...	+11	...	+10	...	+12	...	+10	...
d ...	+11	...	+16	...	+25	...	+21	...	+31	...	0	...

APPENDIX IV.

The following tables give the Total Hourly Rainfall for each month of the year, during the years 1888 to 1897, derived from the tabulations of a Self-recording Beckley Raingauge, by Hicks.

TABLE *a*.

January.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.185	1.050	0.590	0.470	0.160	0.630	0.645	0.125	0.340	0.000	0.419
2	0.145	0.170	1.035	0.160	0.090	0.645	0.990	0.075	0.345	0.320	0.397
3	0.060	0.080	0.190	0.125	1.475	0.855	1.585	0.035	0.200	0.205	0.481
4	0.100	0.125	0.225	0.055	0.365	0.240	1.810	0.060	0.555	0.435	0.397
5	0.605	0.465	0.185	0.295	0.265	0.535	0.335	0.005	0.855	0.040	0.358
6	0.035	0.460	0.325	0.155	0.105	0.355	1.155	0.055	0.985	0.235	0.386
7	0.170	0.545	0.065	0.060	0.025	0.495	0.440	0.070	0.680	0.595	0.314
8	0.500	0.410	0.220	0.175	0.050	0.180	0.435	0.045	0.715	0.165	0.289
9	1.125	0.205	0.425	0.085	0.150	0.185	0.465	0.085	0.110	0.075	0.291
10	0.465	0.135	0.040	0.040	0.090	0.320	0.390	0.010	0.360	0.000	0.185
11	0.245	0.570	0.035	0.290	0.075	0.900	0.355	0.000	0.970	0.135	0.357
12	0.100	1.010	0.200	0.210	1.015	0.245	0.615	0.210	0.670	0.285	0.456
13	0.045	0.775	0.070	0.375	0.410	0.150	0.715	0.085	0.000	1.845	0.447
14	0.200	0.600	0.050	0.170	0.480	0.375	0.270	0.115	0.025	0.545	0.283
15	1.000	1.080	0.120	0.190	0.150	1.020	0.200	0.230	0.115	0.765	0.487
16	0.350	0.650	0.085	0.305	0.220	1.750	0.425	0.075	0.005	0.075	0.394
17	0.250	0.775	0.225	0.170	0.140	0.295	1.085	0.080	0.155	0.025	0.320
18	0.475	0.495	0.105	0.095	0.085	0.645	0.440	0.035	0.375	0.010	0.276
19	0.330	0.740	0.065	0.430	0.380	0.090	0.375	0.105	0.350	0.305	0.317
20	0.665	0.505	0.085	0.035	0.190	0.230	0.310	0.295	0.350	0.105	0.277
21	0.260	0.465	0.280	0.155	0.055	0.155	0.260	0.060	0.220	0.000	0.191
22	1.040	0.285	0.305	0.030	0.105	0.700	0.465	0.065	0.460	0.030	0.348
23	0.445	0.455	0.015	0.050	0.130	0.515	0.705	0.020	0.700	0.025	0.306
24	0.225	0.655	0.105	0.070	0.750	1.195	0.135	0.235	1.125	0.030	0.452

TABLE *b*.

February.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.465	0.015	0.090	0.030	0.595	0.165	0.345	0.000	1.093	0.380	0.318
2	0.685	0.235	0.105	0.135	0.345	0.115	0.195	0.095	1.189	0.360	0.346
3	0.035	0.110	0.145	0.280	0.550	0.020	0.415	0.100	1.319	0.305	0.328
4	0.270	0.670	0.410	0.065	0.315	0.120	0.190	0.030	1.313	0.045	0.343
5	0.040	0.190	0.100	0.190	0.270	0.245	0.265	0.075	1.313	0.150	0.284
6	0.110	0.490	0.525	0.115	0.385	0.095	0.165	0.130	1.379	0.135	0.353
7	0.700	0.100	0.035	0.260	0.410	0.025	0.210	0.125	1.071	0.230	0.316
8	0.230	0.675	0.000	0.370	0.655	0.165	0.495	0.000	1.265	0.235	0.409
9	0.460	0.960	0.145	0.055	0.370	0.000	0.055	0.060	1.275	0.145	0.352
10	0.520	0.320	0.980	0.040	0.755	0.000	0.145	0.210	1.160	0.060	0.419
11	0.490	0.095	0.455	0.150	0.125	0.010	0.125	0.200	1.747	0.090	0.349
12	0.770	0.025	0.180	0.565	0.550	0.375	0.085	0.405	1.808	0.050	0.481
13	0.785	0.320	0.775	0.265	1.020	0.620	0.135	0.910	2.103	0.020	0.695
14	0.125	0.020	0.250	0.545	0.930	0.020	0.365	0.165	1.767	0.075	0.426
15	0.205	0.445	0.625	0.050	0.710	0.015	0.275	0.300	0.580	0.020	0.322
16	0.200	0.135	0.360	0.290	0.565	0.010	0.205	0.330	0.840	0.225	0.316
17	0.020	0.170	0.215	0.315	0.630	0.140	0.275	0.055	1.390	0.190	0.340
18	0.060	0.215	1.460	0.135	0.385	0.055	0.135	0.015	0.840	0.085	0.338
19	0.685	0.340	1.325	0.000	0.705	0.040	0.275	0.045	0.715	0.040	0.417
20	0.720	0.075	1.030	0.065	0.820	0.000	0.050	0.075	0.780	0.010	0.362
21	0.015	0.015	0.100	0.105	0.915	0.035	0.110	0.090	1.085	0.065	0.253
22	0.080	0.040	0.660	0.070	0.970	0.000	0.070	0.000	1.191	0.090	0.317
23	0.790	0.065	0.405	0.010	0.465	0.030	0.120	0.010	0.876	0.000	0.277
24	0.050	0.050	0.885	0.220	0.545	0.220	0.425	0.015	0.381	0.210	0.300

TABLE c.

March.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.175	0.795	0.265	0.205	0.180	0.030	0.345	0.655	0.005	0.000	0.265
2	0.115	0.940	0.190	0.665	0.150	0.020	0.315	0.970	0.030	0.030	0.342
3	0.165	1.155	0.765	0.735	0.450	0.055	0.290	1.055	0.185	0.010	0.486
4	0.180	0.480	0.160	0.575	0.975	0.175	0.110	1.220	0.150	0.000	0.402
5	0.145	0.405	0.360	1.300	0.280	0.465	0.110	0.795	0.245	0.020	0.412
6	0.135	0.515	0.295	0.990	0.215	0.540	0.065	0.590	0.365	0.000	0.371
7	0.250	0.625	0.410	0.955	0.820	0.280	0.495	1.410	0.020	0.000	0.526
8	0.385	0.515	0.595	0.875	0.460	0.095	0.165	2.750	0.050	0.000	0.589
9	1.190	0.715	0.400	1.075	0.655	0.145	0.105	1.790	0.100	0.000	0.617
10	0.245	0.285	0.375	1.170	0.305	0.015	0.340	1.755	0.030	0.000	0.452
11	0.525	0.595	0.655	0.340	0.170	0.250	0.245	1.040	0.010	0.000	0.383
12	1.455	0.615	1.170	0.230	0.145	0.515	0.100	1.105	0.430	0.000	0.576
13	0.420	0.295	0.470	0.075	0.330	0.285	0.410	1.050	0.645	0.025	0.400
14	0.175	0.235	2.220	0.165	0.230	0.975	0.160	0.225	0.455	0.060	0.490
15	0.170	0.465	1.515	0.095	2.920	0.245	0.075	0.135	0.045	0.005	0.567
16	0.460	0.835	0.310	0.325	0.240	0.010	0.030	0.525	0.020	0.200	0.295
17	0.535	0.790	0.030	0.280	0.220	0.055	0.070	0.295	0.000	0.170	0.244
18	0.505	1.050	0.440	0.325	0.010	0.010	0.065	1.740	0.035	0.085	0.426
19	0.190	2.300	0.395	0.170	0.020	0.035	0.085	0.930	0.175	0.010	0.431
20	0.520	0.840	0.405	0.225	0.175	0.010	0.050	0.235	0.000	0.000	0.246
21	0.955	1.185	0.355	0.165	0.130	0.185	0.100	1.485	0.025	0.000	0.458
22	0.145	0.510	0.390	0.215	0.095	0.525	0.110	1.320	0.010	0.015	0.338
23	0.595	0.505	0.500	0.250	0.085	0.720	0.270	0.675	0.420	0.160	0.418
24	0.235	0.295	0.0235	0.080	0.320	0.400	0.230	0.295	0.120	0.005	0.221

TABLE *d.*

April.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.080	0.125	0.540	0.115	0.115	0.170	0.155	0.075	0.355	0.020	0.175
2	0.095	0.355	0.390	0.505	0.390	0.955	0.065	0.110	0.090	0.110	0.306
3	0.370	0.340	0.235	0.610	0.220	0.380	0.105	0.050	0.075	0.100	0.248
4	0.070	0.155	0.045	0.635	0.710	0.290	0.020	0.165	0.350	0.075	0.251
5	0.140	0.110	0.170	0.190	0.085	0.255	0.015	0.060	0.135	0.110	0.127
6	0.050	0.240	0.090	0.680	0.095	0.250	0.085	0.055	0.065	0.000	0.161
7	0.085	0.130	0.350	0.255	0.160	0.190	0.215	0.045	0.040	0.130	0.160
8	0.035	0.065	0.045	0.430	0.440	0.580	0.010	0.015	0.045	0.160	0.182
9	0.060	0.150	0.420	0.080	0.060	0.155	0.000	0.135	0.015	0.040	0.111
10	0.000	0.020	0.820	0.160	0.140	0.295	0.015	0.020	0.205	0.000	0.167
11	0.000	0.225	0.215	0.720	0.490	0.040	0.035	0.920	0.210	0.000	0.285
12	0.020	0.580	0.270	0.195	0.650	0.460	0.265	0.010	0.015	0.040	0.250
13	0.020	0.045	0.430	0.220	0.390	0.375	0.010	0.035	0.060	0.000	0.158
14	0.215	0.105	0.260	0.030	0.220	0.390	0.000	0.305	0.515	0.000	0.204
15	0.125	0.205	0.265	0.045	0.350	0.460	0.200	0.410	0.020	0.000	0.208
16	0.130	0.015	1.300	0.205	0.485	1.710	0.440	0.385	0.010	0.000	0.468
17	0.045	0.485	0.300	0.170	0.340	0.665	1.675	0.315	0.210	0.000	0.420
18	0.045	0.140	0.050	0.030	0.050	0.460	0.520	0.020	0.115	0.000	0.143
19	0.045	0.050	0.340	0.025	0.015	1.005	0.180	0.035	0.165	0.015	0.187
20	0.015	0.065	0.130	0.105	0.000	1.030	0.355	0.075	0.285	0.390	0.245
21	0.000	0.130	0.405	0.165	0.000	0.025	0.210	0.020	0.185	0.305	0.144
22	0.045	0.685	0.305	0.615	0.055	0.085	0.135	0.025	0.145	0.200	0.229
23	0.065	0.220	0.740	0.660	0.010	0.025	0.800	0.025	0.040	0.320	0.290
24	0.185	0.075	0.675	0.390	0.220	0.025	0.395	0.085	0.500	0.220	0.277

TABLE *e*.

May.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.000	0.065	0.000	0.215	0.190	0.155	0.100	0.095	0.505	0.000	0.132
2	0.000	0.030	0.000	0.120	0.035	0.230	0.230	0.125	0.180	0.000	0.095
3	0.010	0.080	0.070	0.035	0.065	0.410	0.045	0.150	0.515	0.000	0.138
4	0.000	0.000	0.045	0.080	0.010	0.415	0.495	0.050	1.015	0.000	0.211
5	0.035	0.075	0.005	0.150	0.050	0.280	0.090	0.045	0.635	0.000	0.136
6	0.080	0.110	0.075	0.450	0.055	0.200	0.045	0.060	0.700	0.000	0.177
7	0.160	0.075	0.000	0.030	0.010	0.445	0.010	0.265	0.680	0.000	0.167
8	0.090	0.055	0.215	0.050	0.005	0.220	0.000	0.095	0.600	0.000	0.133
9	0.125	0.005	0.015	0.020	0.000	0.110	0.035	0.100	0.990	0.000	0.140
10	0.090	0.075	0.000	0.025	0.020	0.210	0.205	0.105	0.725	0.000	0.145
11	0.000	0.045	0.015	0.080	0.000	0.000	0.300	0.030	0.765	0.010	0.124
12	0.020	0.055	0.000	0.000	0.000	0.555	0.095	0.045	0.155	0.055	0.098
13	0.055	0.030	0.000	0.075	0.165	0.160	0.200	0.250	0.065	0.075	0.107
14	0.095	0.040	0.000	0.000	0.065	0.065	0.105	0.130	0.225	0.030	0.075
15	0.020	0.390	0.005	0.075	0.080	0.100	0.610	0.000	0.180	0.015	0.147
16	0.000	0.315	0.015	0.095	0.045	0.090	0.420	0.000	0.600	0.000	0.158
17	0.000	0.000	0.000	0.020	0.010	0.045	0.290	0.115	0.460	0.000	0.094
18	0.035	0.055	0.025	0.045	0.000	0.000	0.155	0.005	1.135	0.000	0.145
19	0.025	0.095	0.010	0.035	0.045	0.190	0.125	0.180	0.175	0.000	0.088
20	0.000	0.045	0.035	0.000	0.025	0.140	0.170	0.225	0.275	0.000	0.091
21	0.060	0.020	0.285	0.000	0.015	0.070	0.065	0.145	0.225	0.000	0.088
22	0.015	0.030	0.025	0.040	0.235	0.125	0.065	0.155	0.815	0.000	0.150
23	0.020	0.000	0.010	0.005	0.070	0.125	0.060	0.140	0.965	0.020	0.141
24	0.000	0.025	0.000	0.150	0.135	0.140	0.580	0.085	0.560	0.000	0.167

TABLE *f*.

June.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.210	0.105	0.015	0.180	0.395	0.100	0.105	0.095	0.000	0.270	0.147
2	0.185	0.020	0.010	0.135	0.100	0.095	0.040	0.060	0.005	0.170	0.082
3	0.165	0.030	0.030	0.275	0.070	0.075	0.030	0.120	0.115	0.115	0.102
4	0.395	0.110	0.120	0.045	0.020	0.140	0.015	0.055	0.000	0.080	0.098
5	0.085	0.055	0.100	0.310	0.010	0.105	0.160	0.105	0.040	0.135	0.110
6	0.175	0.095	0.085	0.090	0.100	0.140	0.055	0.265	0.020	0.040	0.106
7	0.020	0.080	0.050	0.185	0.130	0.090	0.015	0.175	0.090	0.055	0.094
8	0.040	0.080	0.035	0.025	0.045	0.020	0.005	0.125	0.185	0.015	0.057
9	0.060	0.010	0.110	0.045	0.340	0.110	0.000	0.040	0.000	0.205	0.092
10	0.040	0.000	0.000	0.000	0.260	0.085	0.025	0.025	0.090	0.130	0.066
11	0.030	0.270	0.145	0.175	0.345	0.035	0.000	0.160	0.085	0.035	0.128
12	0.000	0.055	0.110	0.060	0.055	0.020	0.045	0.130	0.170	0.000	0.064
13	0.000	0.010	0.035	0.045	0.165	0.145	0.000	0.115	0.080	0.020	0.061
14	0.050	0.050	0.090	0.195	0.160	0.005	0.000	0.030	0.070	0.000	0.065
15	0.025	0.065	0.095	0.065	0.265	0.030	0.005	0.055	0.080	0.000	0.063
16	0.000	0.000	0.030	0.015	0.225	0.060	0.000	0.095	0.000	0.000	0.042
17	0.060	0.040	0.085	0.025	0.305	0.060	0.005	0.075	0.015	0.095	0.076
18	0.010	0.110	0.155	0.020	0.190	0.025	0.010	0.030	0.030	0.190	0.077
19	0.000	0.150	0.095	0.085	0.205	0.065	0.050	0.075	0.005	0.025	0.075
20	0.070	0.020	0.045	0.065	0.075	0.240	0.000	0.080	0.055	0.075	0.072
21	0.000	0.015	0.165	0.060	0.175	0.100	0.100	0.285	0.060	0.200	0.116
22	0.075	0.055	0.070	0.055	0.155	0.225	0.080	0.115	0.100	0.100	0.102
23	0.005	0.070	0.000	0.205	0.375	0.200	0.035	0.430	0.010	0.175	0.150
24	0.045	0.030	0.060	0.250	0.460	0.025	0.025	0.055	0.020	0.360	0.133

TABLE *g*.

July.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.040	0.075	0.140	0.080	0.230	0.165	0.155	0.055	0.060	0.180	0.118
2	0.015	0.105	0.625	0.105	0.180	0.450	0.150	0.000	0.000	0.085	0.171
3	0.020	0.270	0.175	0.035	0.110	0.195	0.145	0.010	0.100	0.010	0.107
4	0.025	0.385	0.085	0.115	0.105	0.125	0.380	0.000	0.155	0.050	0.141
5	0.055	0.070	0.120	0.070	0.270	0.330	0.085	0.000	0.095	0.055	0.115
6	0.245	0.050	0.220	0.070	0.045	0.165	0.005	0.010	0.135	0.040	0.098
7	0.200	0.105	0.165	0.045	0.175	0.255	0.010	0.005	0.040	0.010	0.101
8	0.095	0.090	0.105	0.030	0.125	0.185	0.035	0.010	0.090	0.030	0.079
9	0.050	0.055	0.340	0.040	0.010	0.175	0.015	0.030	0.030	0.000	0.074
10	0.070	0.030	0.585	0.130	0.000	0.060	0.000	0.135	0.015	0.000	0.102
11	0.100	0.030	0.535	0.020	0.065	0.045	0.000	0.025	0.110	0.000	0.093
12	0.005	0.035	0.125	0.000	0.010	0.000	0.040	0.000	0.020	0.010	0.024
13	0.095	0.005	0.030	0.105	0.055	0.030	0.075	0.000	0.050	0.020	0.046
14	0.040	0.015	0.015	0.145	0.045	0.095	0.185	0.170	0.070	0.535	0.131
15	0.010	0.015	0.000	0.175	0.050	0.035	0.000	0.185	0.010	0.205	0.068
16	0.030	0.105	0.080	0.085	0.080	0.090	0.070	0.030	0.065	0.000	0.063
17	0.030	0.190	0.010	0.245	0.120	0.035	0.020	0.010	0.025	0.035	0.072
18	0.065	0.275	0.025	0.120	0.040	0.135	0.185	0.015	0.070	0.010	0.094
19	0.070	0.015	0.065	0.110	0.050	0.020	0.035	0.010	0.060	0.020	0.045
20	0.080	0.080	0.135	0.055	0.075	0.100	0.010	0.025	0.110	0.055	0.072
21	0.030	0.025	0.180	0.070	0.290	0.145	0.060	0.030	0.245	0.020	0.109
22	0.045	0.100	0.125	0.100	0.095	0.175	0.115	0.005	0.045	0.020	0.082
23	0.055	0.130	0.145	0.110	0.160	0.215	0.115	0.295	0.100	0.145	0.147
24	0.020	0.155	0.220	0.075	0.190	0.215	0.370	0.290	0.165	0.040	0.174

TABLE *h*.

August.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.180	0.140	0.070	0 020	0.195	0.050	0.025	0.040	0.240	0.025	**0.098**
2	0.190	0.160	0.155	0.090	0.140	0.145	0.060	0.035	0.140	0.095	**0.121**
3	0.080	0.580	0.185	0.215	0.100	0.005	0.230	0.110	0.185	0.125	**0.181**
4	0.045	0.405	0.285	0.110	0.085	0.170	0.055	0.075	0.080	0.150	**0.146**
5	0.145	0.130	0.120	0.080	0.170	0.290	0.195	0.470	0.105	0.075	**0.178**
6	0.345	0.285	0.165	0.045	0.400	0.245	0.115	0.575	0.185	0.070	**0.243**
7	0.030	0.230	0.185	0.045	0.680	0.060	0.060	0.300	0.155	0.155	**0.190**
8	0.130	0.065	0.250	0.050	0.020	0.065	0.135	0.250	0.210	0.270	**0.144**
9	0.150	0.055	0.085	0.120	0.125	0.240	0.100	0.420	0.085	0.065	**0.144**
10	0.095	0.015	0.030	0.125	0.015	0.130	0.085	0.620	0.045	0.135	**0.129**
11	0.020	0.075	0.000	0.010	0.125	0.005	0.150	0.070	0.015	0.035	**0.050**
12	0.075	0.160	0.000	0.160	0.045	0.135	0.005	0.205	0.010	0.030	**0.082**
13	0.260	0.085	0.005	0.235	0.365	0.020	0.090	0.115	0.000	0.005	**0.118**
14	0.190	0.045	0.045	0.080	0.510	0.065	0.055	0.265	0.025	0.030	**0.131**
15	0.060	0.005	0.060	0.055	0.065	0.200	0.000	0.135	0.000	0.045	**0.062**
16	0.005	0.045	0.075	0.025	0.100	0.020	0.035	0.145	0.015	0.020	**0.048**
17	0.265	0.030	0.060	0.040	0.305	0.015	0.055	0.085	0.020	0.025	**0.090**
18	0.085	0.055	0.120	0.005	0.010	0.010	0.055	0.050	0.015	0.050	**0.045**
19	0.010	0.095	0.090	0.200	0.070	0.015	0.200	0.085	0.010	0.075	**0.085**
20	0.020	0.175	0.115	0.150	0.000	0.020	0.255	0.060	0.025	0.095	**0.091**
21	0.050	0.110	0.030	0.085	0.015	0.020	0.050	0.085	0.070	0.035	**0.055**
22	0.090	0.235	0.055	0.195	0.040	0.070	0.095	0.115	0.110	0.075	**0.108**
23	0.240	0.250	0.055	0.185	0.050	0.045	0.070	0.120	0.095	0.080	**0.119**
24	0.150	0.120	0.050	0.070	0.355	0.085	0.265	0.190	0.170	0.000	**0.145**

TABLE i.

September.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.040	0.140	0.015	0.265	0.080	0.030	0.015	0.025	0.060	0.130	0.080
2	0.055	0.120	0.010	0.245	0.165	0.025	0.000	0.000	0.130	0.110	0.086
3	0.160	0.050	0.015	0.115	0.120	0.005	0.005	0.015	0.080	0.140	0.070
4	0.050	0.200	0.020	0.100	0.240	0.245	0.050	0.030	0.030	0.020	0.098
5	0.045	0.040	0.005	0.100	0.040	0.195	0.045	0.075	0.020	0.260	0.082
6	0.015	0.105	0.025	0.190	0.120	0.150	0.085	0.130	0.010	0.105	0.093
7	0.105	0.040	0.015	0.060	0.025	0.020	0.065	0.115	0.010	0.125	0.058
8	0.070	0.065	0.065	0.000	0.020	0.050	0.005	0.050	0.025	0.105	0.045
9	0.015	0.010	0.060	0.120	0.040	0.020	0.070	0.055	0.060	0.155	0.060
10	0.000	0.000	0.020	0.035	0.000	0.015	0.000	0.060	0.105	0.020	0.025
11	0.000	0.005	0.010	0.070	0.015	0.000	0.025	0.020	0.040	0.000	0.018
12	0.010	0.010	0.000	0.000	0.085	0.030	0.045	0.030	0.025	0.000	0.023
13	0.000	0.015	0.000	0.015	0.015	0.000	0.065	0.015	0.000	0.000	0.012
14	0.005	0.290	0.000	0.040	0.075	0.000	0.005	0.015	0.040	0.010	0.048
15	0.000	0.055	0.000	0.025	0.035	0.015	0.025	0.000	0.000	0.000	0.015
16	0.050	0.015	0.000	0.025	0.065	0.020	0.040	0.000	0.000	0.000	0.021
17	0.090	0.060	0.020	0.080	0.025	0.000	0.045	0.005	0.000	0.000	0.032
18	0.005	0.045	0.000	0.120	0.005	0.000	0.035	0.015	0.010	0.015	0.025
19	0.050	0.065	0.030	0.025	0.015	0.000	0.045	0.000	0.000	0.125	0.035
20	0.005	0.010	0.000	0.070	0.035	0.000	0.085	0.045	0.000	0.015	0.026
21	0.005	0.050	0.010	0.175	0.130	0.000	0.270	0.075	0.155	0.100	0.097
22	0.005	0.055	0.035	0.055	0.085	0.000	0.205	0.000	0.065	0.020	0.052
23	0.080	0.155	0.075	0.270	0.160	0.040	0.130	0.000	0.150	0.160	0.122
24	0.230	0.040	0.045	0.115	0.025	0.070	0.240	0.045	0.165	0.205	0.118

TABLE *j*.

October.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.015	0.080	0.005	0.060	0.010	0.090	0.000	0.030	0.015	0.030	0.033
2	0.035	0.130	0.040	0.005	0.175	0.090	0.000	0.000	0.030	0.035	0.054
3	0.005	0.055	0.015	0.005	0.060	0.125	0.000	0.000	0.040	0.115	0.042
4	0.055	0.045	0.035	0.010	0.100	0.040	0.035	0.000	0.010	0.060	0.039
5	0.000	0.100	0.200	0.040	0.000	0.075	0.210	0.010	0.000	0.105	0.074
6	0.045	0.045	0.120	0.000	0.060	0.025	0.020	0.050	0.005	0.315	0.068
7	0.035	0.195	0.190	0.050	0.050	0.110	0.195	0.000	0.040	0.050	0.091
8	0.000	0.090	0.025	0.210	0.130	0.065	0.050	0.050	0.070	0.110	0.080
9	0.025	0.030	0.010	0.145	0.045	0.045	0.000	0.150	0.020	0.150	0.062
10	0.000	0.000	0.015	0.000	0.000	0.050	0.020	0.000	0.040	0.065	0.019
11	0.000	0.000	0.025	0.075	0.080	0.000	0.000	0.030	0.010	0.000	0.022
12	0.005	0.060	0.080	0.185	0.015	0.000	0.000	0.000	0.000	0.035	0.038
13	0.025	0.000	0.020	0.010	0.030	0.000	0.140	0.000	0.040	0.000	0.026
14	0.010	0.000	0.095	0.015	0.010	0.000	0.105	0.000	0.050	0.030	0.031
15	0.030	0.010	0.030	0.000	0.020	0.025	0.165	0.210	0.025	0.000	0.051
16	0.775	0.000	0.040	0.060	0.075	0.005	0.030	0.010	0.035	0.010	0.104
17	0.050	0.050	0.125	0.010	0.030	0.000	0.030	0.000	0.000	0.025	0.032
18	0.055	0.000	0.040	0.100	0.195	0.000	0.000	0.000	0.000	0.005	0.039
19	0.010	0.000	0.015	0.055	0.030	0.045	0.000	0.000	0.000	0.065	0.022
20	0.080	0.010	0.015	0.000	0.025	0.000	0.010	0.000	0.000	0.085	0.022
21	0.155	0.030	0.035	0.035	0.020	0.040	0.045	0.020	0.060	0.030	0.047
22	0.035	0.040	0.070	0.020	0.000	0.230	0.045	0.035	0.065	0.005	0.054
23	0.115	0.035	0.030	0.030	0.005	0.025	0.000	0.050	0.030	0.030	0.034
24	0.040	0.235	0.040	0.000	0.020	0.015	0.010	0.000	0.000	0.045	0.040

TABLE *k*.

November.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.060	0.000	0.000	0.045	0.250	0.005	0.015	0.350	0.000	0.000	0.072
2	0.175	0.000	0.015	0.390	0.015	0.095	0.100	0.100	0.200	0.000	0.109
3	0.060	0.005	0.010	0.045	0.220	0.015	0.100	0.190	0.010	0.005	0.066
4	0.035	0.005	0.020	0.060	0.040	0.245	0.010	0.125	0.080	0.000	0.062
5	0.170	0.000	0.010	0.030	0.220	0.095	0.005	0.210	0.005	0.055	0.080
6	0.010	0.240	0.170	0.060	0.010	0.000	0.040	0.060	0.010	0.015	0.061
7	0.110	0.045	0.040	0.040	0.065	0.050	0.080	0.005	0.005	0.030	0.047
8	0.020	0.015	0.085	0.180	0.045	0.100	0.000	0.005	0.010	0.030	0.049
9	0.010	0.060	0.165	0.110	0.020	0.030	0.000	0.015	0.005	0.025	0.044
10	0.000	0.055	0.075	0.035	0.020	0.200	0.010	0.000	0.000	0.000	0.039
11	0.000	0.335	0.040	0.270	0.000	0.020	0.290	0.000	0.000	0.000	0.095
12	0.000	0.150	0.000	0.015	0.025	0.110	0.550	0.220	0.020	0.000	0.109
13	0.020	0.480	0.120	0.000	0.000	0.235	0.010	0.100	0.070	0.000	0.103
14	0.000	0.110	1.125	0.000	0.000	0.025	0.000	0.025	0.000	0.000	0.128
15	0.000	0.005	0.490	0.000	0.000	0.080	0.000	0.685	0.060	0.035	0.135
16	0.015	0.045	0.070	0.010	0.270	0.070	0.000	0.095	0.000	0.125	0.070
17	0.040	0.050	0.000	0.000	0.000	0.005	0.035	0.030	0.000	0.100	0.026
18	0.080	0.030	0.000	0.080	0.145	0.000	0.000	0.085	0.015	0.160	0.059
19	0.015	0.105	0.000	0.035	0.170	0.010	0.020	0.150	0.020	0.015	0.054
20	0.145	0.000	0.010	0.020	0.080	0.100	0.000	0.070	0.015	0.195	0.063
21	0.040	0.005	0.030	0.025	0.045	0.110	0.000	0.010	0.100	0.205	0.057
22	0.085	0.000	0.030	0.050	0.005	0.045	0.030	0.070	0.245	0.055	0.061
23	0.130	0.000	0.275	0.035	0.050	0.090	0.000	0.030	0.040	0.050	0.070
24	0.070	0.000	0.030	0.000	0.090	0.015	0.010	0.015	0.065	0.000	0.029

TABLE *l*.

December.

Hour ending (M. C. T.)	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Mean.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.400	0.255	0.060	0.030	0.210	0.000	0.060	1.395	0.000	0.100	**0.251**
2	0.490	0.390	0.040	0.050	0.995	0.060	0.035	0.220	0.000	0.065	**0.234**
3	1.225	0.125	0.010	0.180	0.705	0.020	0.150	0.090	0.015	0.100	**0.262**
4	0.920	0.360	0.025	0.115	0.640	0.125	1.045	1.180	0.020	0.250	**0.468**
5	1.825	0.085	0.000	0.000	0.490	0.050	0.055	0.345	0.000	0.780	**0.363**
6	0.795	0.115	0.010	0.000	0.570	0.110	0.170	0.035	0.010	0.060	**0.187**
7	0.640	0.260	0.055	0.025	1.105	0.105	0.230	0.170	0.000	0.105	**0.269**
8	0.600	0.175	0.030	0.070	0.335	0.030	0.125	0.110	0.000	0.165	**0.164**
9	0.770	0.100	0.025	0.030	0.400	0.095	0.015	0.130	0.000	0.070	**0.163**
10	0.535	0.045	0.015	0.000	0.135	0.370	0.000	0.330	0.000	0.080	**0.151**
11	0.165	0.095	0.000	0.060	0.000	0.045	0.010	0.610	0.230	0.185	**0.140**
12	0.125	0.080	0.005	0.080	0.040	0.000	0.020	0.100	0 000	0.090	**0.054**
13	0.300	0.000	0.290	0.030	0.025	0.000	0.080	0.050	0.130	0.015	**0 092**
14	0.635	0.050	0.620	0.485	0.000	0.000	0.005	0.070	0.160	0.070	**0.209**
15	0.890	0.025	0.000	1.390	0.010	0.000	0.535	0.125	0.080	0.050	**0.310**
16	0.260	0.035	0.720	0.260	0.000	0.000	0.400	0.460	0.020	0.650	**0.280**
17	0.170	0.110	0.090	0.005	0.000	0.025	0.110	0.280	0.285	0.020	**0.109**
18	0.555	0.005	0.020	0.050	0.000	0.020	0.185	0.110	0.010	0.050	**0.100**
19	0.595	0.000	0.115	0.045	0.000	0.220	0.260	0.015	0.000	0.265	**0.151**
20	0.195	0.045	0.030	0.670	0.000	0.000	0.790	0.025	0.185	0.185	**0.212**
21	0.125	0.165	0.000	0.060	0.055	0.010	0.410	0.025	0.065	0.690	**0.160**
22	0.215	0.075	0.030	0.000	0.145	0.110	0.640	0.000	0.015	0.610	**0.184**
23	0.280	0.080	0.010	0.000	0.140	0.050	0.485	0.355	0.010	0.060	**0.137**
24	0.145	0.065	0.000	0.145	0.205	0.005	0.210	0.575	0.000	0.075	**0.142**

TABLE *m*.

Hourly Rainfall at different Seasons of the year and for the whole year, for the Period 1888-1897.

Hour ending (M. C. T.)	December to February.	March to May.	June to August.	September to November.	December to May.	June to November.	For the year.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.
1h	0.329	0.191	0.121	0.062	0.260	0.091	0.176
2	0.326	0.248	0.125	0.083	0.287	0.104	0.195
3	0.357	0.291	0.130	0.059	0.324	0.095	0.209
4	0.403	0.288	0.128	0.066	0.345 +	0.097	0.221
5	0.385	0.225	0.134	0.079	0.280	0.107	0.193
6	0.309	0.236	0.149	0.074	0.273 —	0.111	0.192
7	0.300	0.284	0.128	0.065	0.292	0.097	0.194
8	0.287	0.301	0.093	0.058	0.294	0.076	0.185
9	0.269	0.289	0.103	0.055	0.279	0.079	0.179
10	0.252	0.255	0.099	0.028	0.253	0.063	0.158
11	0.282	0.264	0.090	0.045	0.273	0.068	0.170
12	0.330	0.308	0.057 —	0.057	0.319 +	0.057	0.188
13	0.411	0.222	0.075	0.047	0.317	0.061	0.189
14	0.306	0.256	0.109	0.069	0.281	0.089	0.185
15	0.373	0.307	0.066	0.067	0.340	0.067	0.203
16	0.330	0.307	0.051	0.065	0.319	0.058	0.188
17	0.256	0.253	0.079	0.030	0.254	0.055	0.155
18	0.238	0.238	0.072	0.041	0.238	0.056	0.147
19	0.295	0.235	0.068	0.037	0.265	0.053	0.159
20	0.284	0.194	0.078	0.037	0.239	0.058	0.148
21	0.201	0.230	0.093	0.067	0.216 —	0.080	0.148
22	0.283	0.237	0.098	0.056	0.260	0.077	0.168
23	0.240	0.283	0.139	0.075	0.261	0.107	0.184
24	0.298	0.222	0.151 +	0.062	0.260	0.107	0.183

PLATE I

Curves showing the Mean Monthly Amount of Heat received from the Sun at the Royal Alfred Observatory, Mauritius, 1887–1897 and the Humidity.

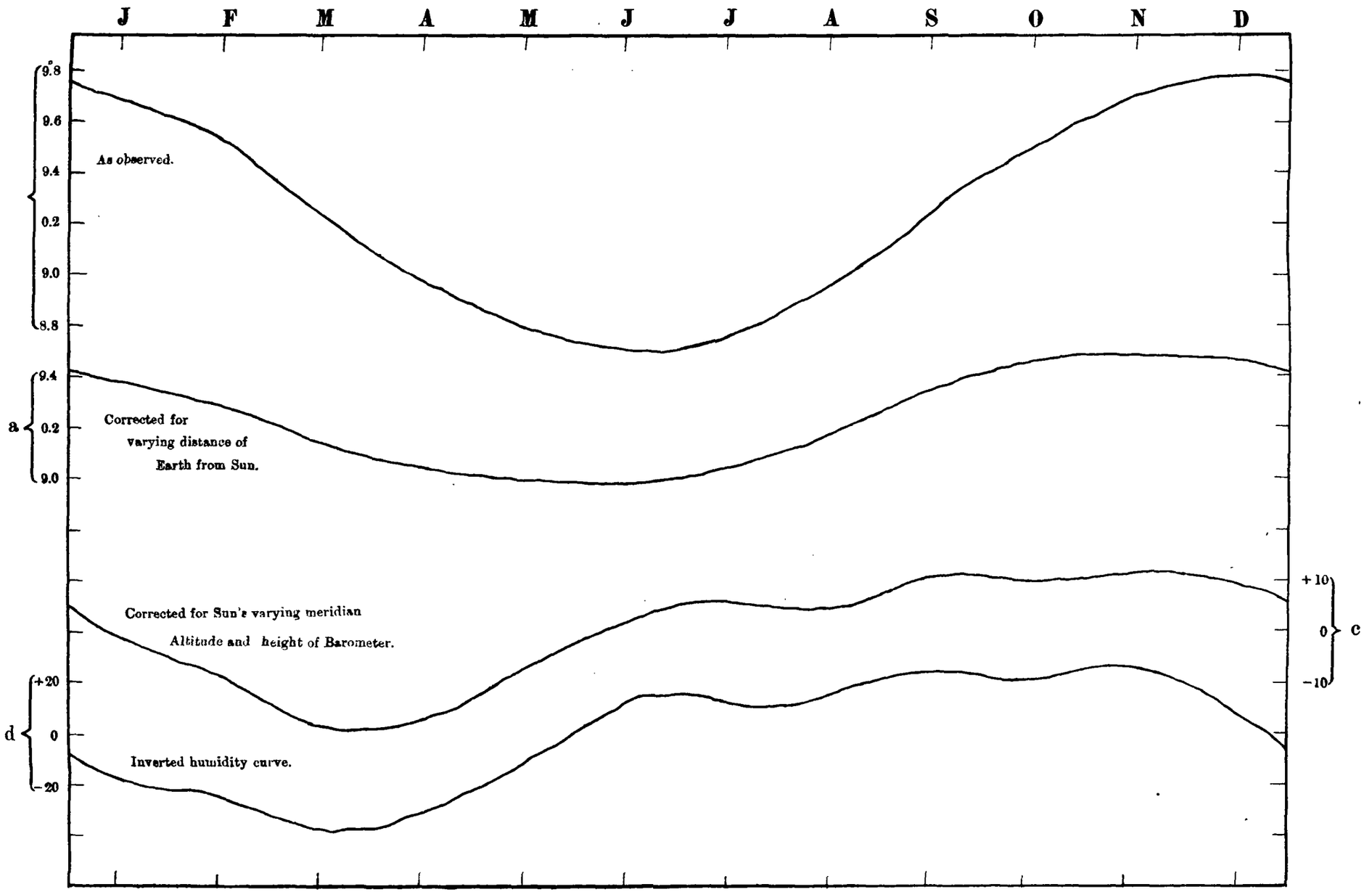
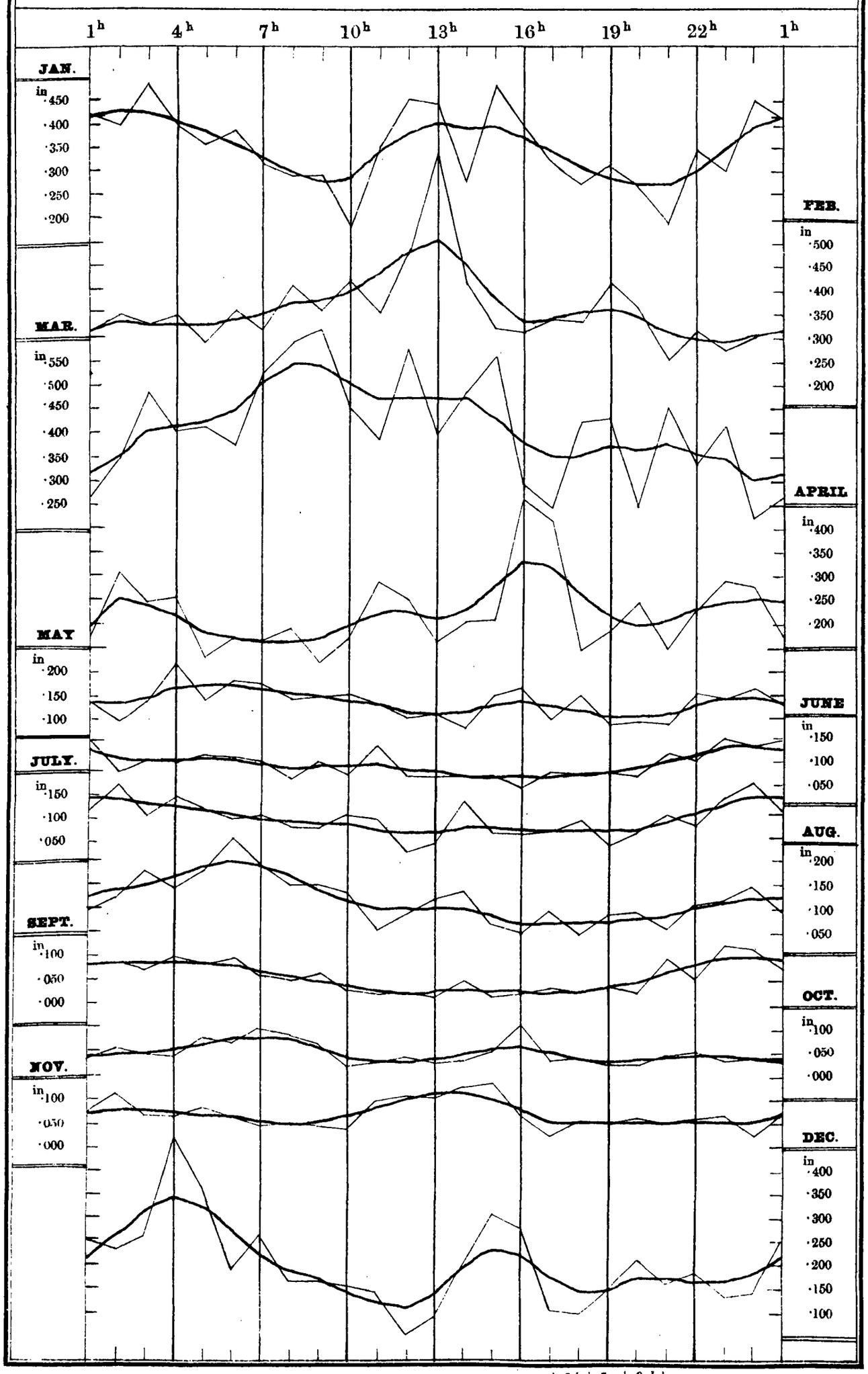


PLATE II

ROYAL ALFRED OBSERVATORY, MAURITIUS.

Mean Hourly Rainfall for each Month of the Year, during the Period 1888–1897.

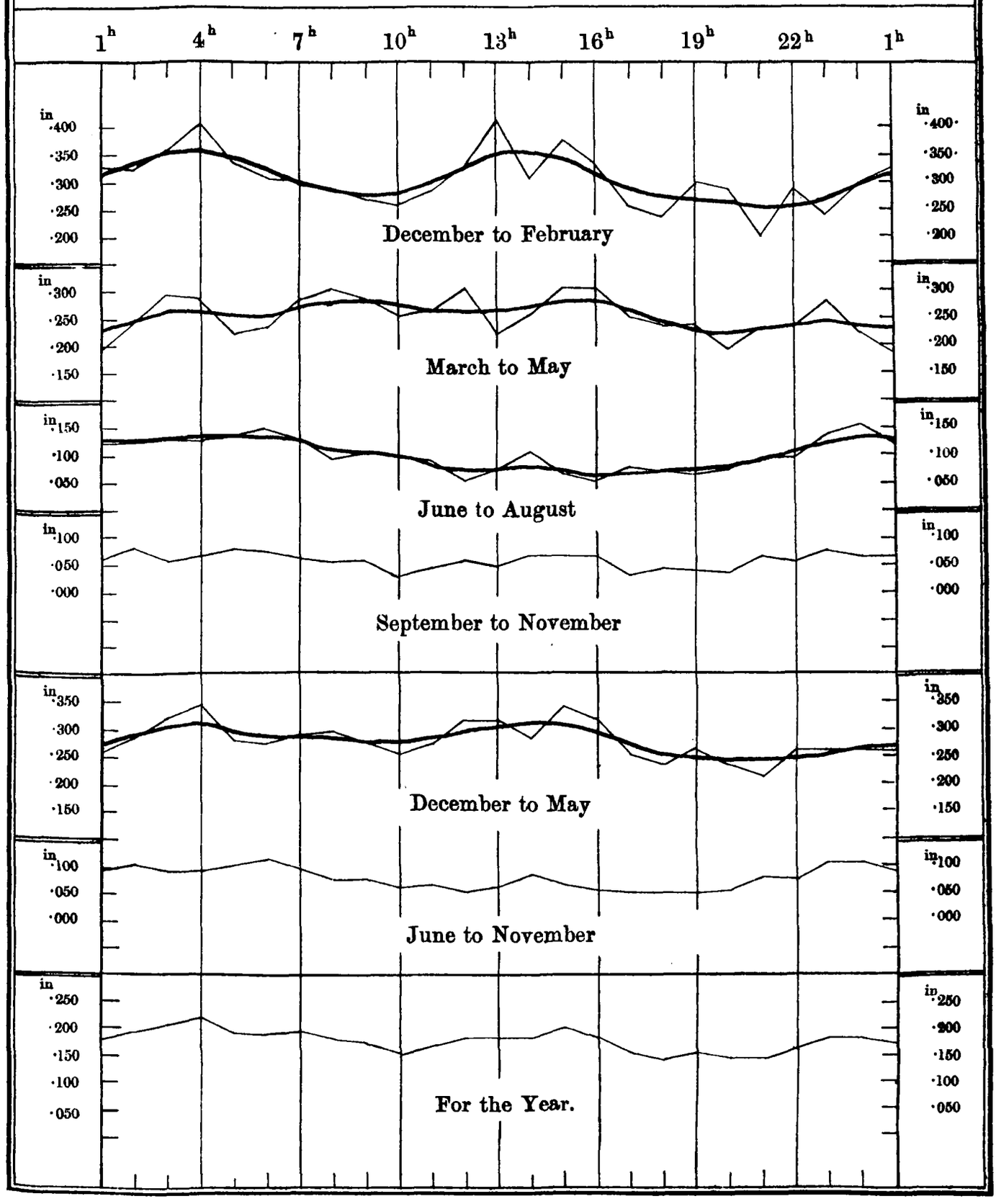


Note:— The heavy curves have been obtained by the formula $c' = \frac{a+2b+3c+2d+e}{9}$

PLATE III

ROYAL ALFRED OBSERVATORY, MAURITIUS.

Mean Hourly Rainfall at different Seasons of the Year and for the whole Year, for the Period 1888 - 1897.



Note :— The heavy curves have been obtained from the formula $c' = \frac{a+2b+3c+2d+e}{9}$