





RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1910

UNDER THE DIRECTION OF

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LATE ASTRONOMER ROYAL

AND

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ERRATA.

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS.

1910 RESULTS.

Page E 9, Footnote, for '18532, read '18531.

„ E 10, „ for '18532, read '18531.

„ E 17, Nov. 7, Corrected Time of Vibration and succeeding columns—

for 5^s.8036, 0^s.13346, 0^s.3379, 4^s.0244, '18556, '18517,
read 5^s.8103, 0^s.13246, 0^s.3375, 4^s.0198, '18534, '18495.

Means for Year, for 4^s.0185, '18529, '18532,

read 4^s.0183, '18528, '18531.

„ E 18, Note at Heading, for '18532, read '18531.

1891 RESULTS.

„ (xxxviii), Col. 19, Rainfall on May 15, for 0^s.025, read 0^s.225.

INDEX.

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INTRODUCTION.	PAGE
PERSONAL ESTABLISHMENT AND ARRANGEMENTS	E i
GENERAL DESCRIPTION OF THE BUILDINGS AND INSTRUMENTS	E i
SUBJECTS OF OBSERVATION	E ii
MAGNETIC INSTRUMENTS—	
DECLINATION MAGNET FOR ABSOLUTE DETERMINATIONS	E iii
DIP INSTRUMENT	E iv
CORRECTIONS TO PREVIOUS DIP RESULTS	E v
DEFLECTION INSTRUMENT	E vi
DECLINATION VARIOMETER	E viii
HORIZONTAL FORCE VARIOMETER	E ix
VERTICAL FORCE VARIOMETER	E xii
MAGNETIC REDUCTIONS	E xiii
TABLE OF MAGNETIC ELEMENTS DETERMINED AT GREENWICH FROM 1841	E xix
METEOROLOGICAL INSTRUMENTS—	
STANDARD BAROMETER	E xx
PHOTOGRAPHIC BAROMETER	E xxi
DRY AND WET BULB THERMOMETERS	E xxii
PHOTOGRAPHIC DRY AND WET BULB THERMOMETERS	E xxiv
RADIATION THERMOMETERS	E xxv
EARTH THERMOMETERS	E xxvi
OSLER'S ANEMOMETER	E xxvii
ROBINSON'S ANEMOMETER	E xxviii
RAIN-GAUGES	E xxix
ELECTROMETER	E xxxi
SUNSHINE RECORDER	E xxxi
OZONOMETER	E xxxii
METEOROLOGICAL REDUCTIONS	E xxxii

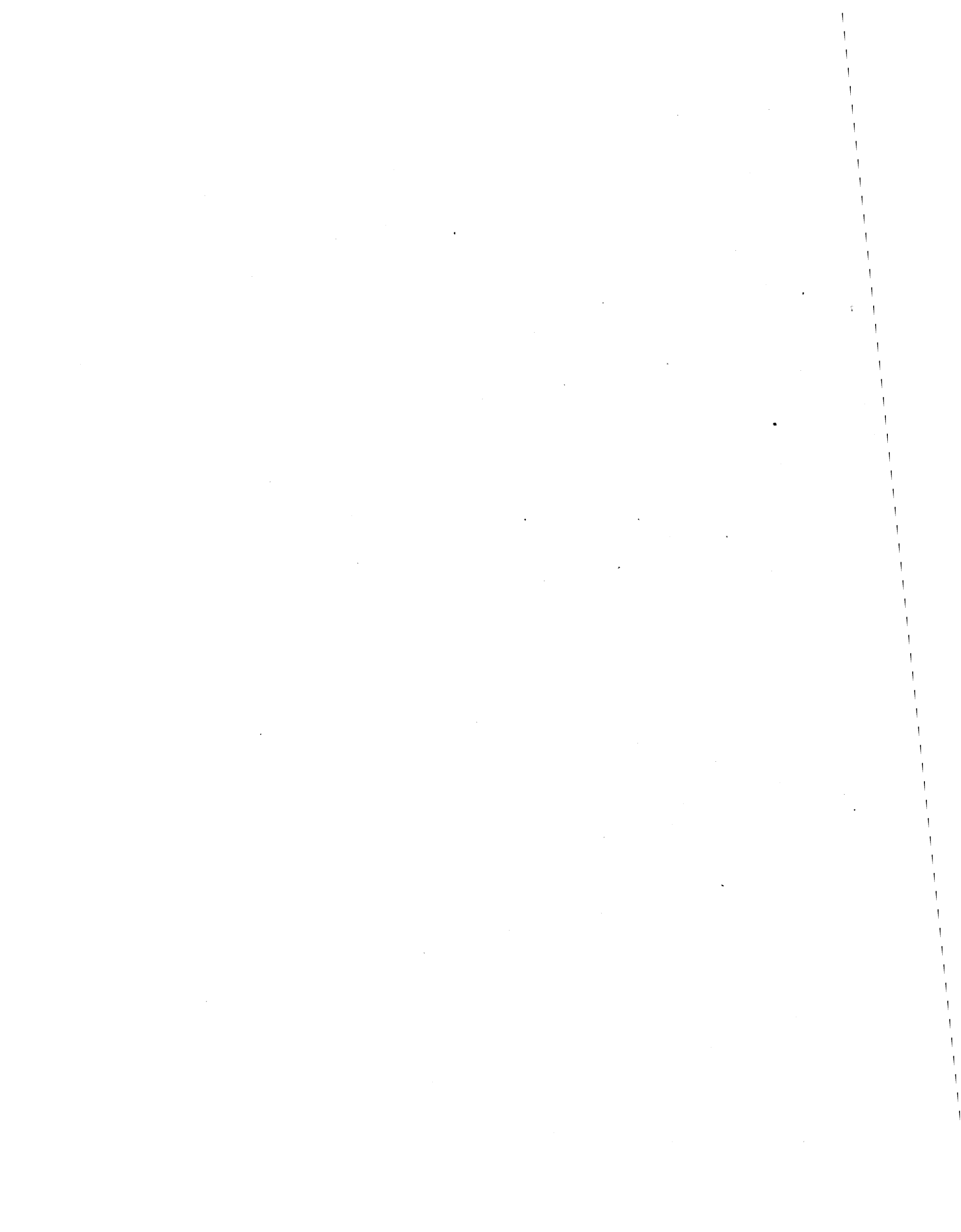
I N D E X.

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS IN TABULAR
ARRANGEMENT:—

	PAGE
RESULTS OF MAGNETICAL OBSERVATIONS	E 1
TABLE I.—Mean Magnetic Declination West for each Civil Day	E 2
TABLE II.—Monthly Mean Diurnal Inequality of Magnetic Declination West	E 2
TABLE III.—Mean Horizontal Magnetic Force (diminished by a Constant) for each Civil Day	E 3
TABLE IV.—Mean Temperature for each Civil Day within the box inclosing the Horizontal Force Magnet	E 4
TABLE V.—Monthly Mean Diurnal Inequality of Horizontal Magnetic Force	E 5
TABLE VI.—Monthly Mean Temperature at each Hour of the Day within the box inclosing the Horizontal Force Magnet	E 5
TABLE VII.—Mean Vertical Magnetic Force (diminished by a Constant) for each Civil Day	E 6
TABLE VIII.—Mean Temperature for each Civil Day within the box inclosing the Vertical Force Magnet	E 7
TABLE IX.—Monthly Mean Diurnal Inequality of Vertical Magnetic Force	E 8
TABLE X.—Monthly Mean Temperature at each Hour of the Day within the box inclosing the Vertical Force Magnet	E 8
TABLE XI.—Mean Magnetic Declination, Horizontal Force, and Vertical Force, in each Month	E 9
TABLE XII.—Mean Diurnal Inequalities of Magnetic Declination, Horizontal Force, and Vertical Force, for the year	E 10
TABLE XIII.—Diurnal Range of Declination and Horizontal Force on each Civil Day, as deduced from the Twenty-four Hourly Measures of Ordinates of the Photographic Register	E 11
TABLE XIV.—Monthly Mean Diurnal Range, and Sums of Hourly Deviations from Mean, for Declination, Horizontal Force, and Vertical Force, as deduced from the Monthly Mean Diurnal Inequalities	E 11
TABLE XV.—Values of the Coefficients in the Periodical Expression— $V_t = m + a_1 \cos t + b_1 \sin t + a_2 \cos 2t + b_2 \sin 2t + \&c.$ for the Magnetic Diurnal Inequalities	E 12
TABLE XVI.—Values of the Coefficients and Constant Angles in the Periodical Expressions— $V_t = m + c_1 \sin (t + \alpha) + c_2 \sin (2t + \beta) + \&c.$ $V_v = m + c_1 \sin (t' + \alpha') + c_2 \sin (2t' + \beta') + \&c.$ for the Magnetic Diurnal Inequalities	E 13
TABLE XVII.—Results of Observations of Magnetic Dip	E 14
TABLE XVIII.—Monthly and Yearly Means of Magnetic Dip	E 15
TABLE XIX.—Determinations of the Absolute Value of Horizontal Magnetic Force	E 16
 MAGNETIC DIURNAL INEQUALITIES FOR THE MEAN OF FIVE SELECTED QUIET DAYS IN EACH MONTH	 E 18
TABLE XX.—Monthly Mean Diurnal Inequality of Magnetic Declination West	E 18

I N D E X.

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS— <i>continued.</i>	PAGE
TABLE XXI.—Monthly Mean Diurnal Inequality of Horizontal Magnetic Force	E 19
TABLE XXII.—Monthly Mean Diurnal Inequality of Vertical Magnetic Force	E 20
MAGNETIC DISTURBANCES	E 21
Brief description of Magnetic Movements (superposed on the ordinary diurnal movement) exceeding 3' in Declination, 0·0010 in Horizontal Force, or 0·0003 in Vertical Force, taken from the Photographic Register	E 22
Explanation of the Plates of Magnetic Disturbances	E 36
PLATES I.—III., photo-lithographed from tracings of the Photographic Registers of Magnetic Disturbances.	
PLATE IV., photo-lithographed from tracings of the Photographic Registers of Magnetic Movements, as types of the Diurnal Variations, at four seasons of the year.	
RESULTS OF METEOROLOGICAL OBSERVATIONS	E 37
Daily Results of the Meteorological Observations	E 38
Highest and Lowest Readings of the Barometer	E 62
Absolute Maxima and Minima Readings of the Barometer for each Month	E 62
Monthly Results of Meteorological Elements	E 63
Monthly Mean Reading of the Barometer at every Hour of the Day	E 64
Monthly Mean Temperature of the Air at every Hour of the Day	E 64
Monthly Mean Temperature of Evaporation at every Hour of the Day	E 65
Monthly Mean Temperature of the Dew-Point at every Hour of the Day	E 65
Monthly Mean Degree of Humidity at every Hour of the Day	E 66
Total Amount of Sunshine registered in each Hour of the Day in each Month	E 66
Readings of Thermometers on the ordinary stand in the Magnetic Pavilion Enclosure	E 67
Excess of Readings in Stevenson Screen above those in ordinary stand	E 70
Amount of Rain collected in each Month by the different gauges	E 70
Earth Thermometers	E 71
Abstract of the Changes of the Direction of the Wind, as derived from the Records of Osler's Anemometer	E 76
Mean Hourly Measures of the Horizontal Movement of the Air in each Month, and Greatest and Least Hourly Measures as derived from the Records of Robinson's Anemometer	E 83
Mean Electrical Potential of the Atmosphere, from Thomson's Electrometer, for each Civil Day	E 84
Monthly Mean Electrical Potential of the Atmosphere, from Thomson's Electrometer, at every Hour of the Day	E 85
Monthly Mean Electrical Potential of the Atmosphere, from Thomson's Electrometer, on Rainy Days, at every Hour of the Day	E 86
Monthly Mean Electrical Potential of the Atmosphere, from Thomson's Electrometer, on Non-Rainy Days, at every Hour of the Day	E 87
OBSERVATIONS OF PARHELIA AND PARASELENE	E 90
OBSERVATIONS OF LUMINOUS METEORS	E 92



GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1910.

INTRODUCTION.

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In the present volume a sufficient account is given of the instruments and methods of reduction now in use. In future years only such particulars will be given as are necessary in order to understand the Tables. Descriptions of new instruments or methods, and of changes in instruments or methods, will be given, and all changes dating from the present year will be mentioned in each Introduction. The Introduction will be repeated in a full and revised form at convenient intervals.

§ 1. *Personal Establishment and Arrangements.*

During the year 1910 the personal establishment in the Magnetical and Meteorological Department of the Royal Observatory consisted of Walter William Bryant, Superintendent, aided by one Established Computer, David J. R. Edney, and four Computers. The Computers employed during the year were:—Edward Kirby, William H. Timbury, Arthur E. Loomes, Ernest L. Richardson, and Sydney T. Divers.

Mr. Bryant controls and superintends the whole of the work of the Department. The routine magnetical and meteorological observations are in general made by the Computers.

§ 2. *General Description of the Buildings and Instruments of the Magnetical and Meteorological Observatory.*

The buildings and instruments remained substantially unchanged throughout the year 1910. For a detailed historical account of them, reference should be made to the Introductions to earlier volumes of these observations.

The instruments for photographic registration of changes in the atmospheric pressure, magnetic declination, and horizontal and vertical magnetic force, are situated in an underground chamber (known as the Magnet Basement); this chamber is kept at a nearly uniform temperature by means of gas stoves. The small variations of temperature are recorded on a Richard thermograph. In the same room there are two mean solar clocks, one being of peculiar construction in order to interrupt the photographic traces at each hour. All these instruments are mounted on or suspended from supports carried by piers built from the ground.

In a wooden building (called the Magnet House) above this chamber are placed the standard barometer, and a Thomson electrometer for photographic registration of the variations of atmospheric electricity. A platform erected above the roof of the Magnet House is used for the observation of meteors; and a nephoscope is mounted there for occasional observations. On the same platform there is a rain-gauge, at a height of 20 feet above the ground.

Near the Magnet House, on what is known as the Magnet Ground, are the earth thermometers, the photographic dry and wet-bulb thermometer apparatus, a rain-gauge, and a set of thermometers in a Stevenson screen.

The Magnet House is built of non-magnetic material, but during the years 1891–1898 considerable masses of iron were introduced into its neighbourhood by the building of certain additions to the Observatory. Hence the instruments which were formerly placed in the Magnet House, for absolute determinations of magnetic declination, dip, and horizontal force, were transferred to the Magnetic Pavilion. This building is constructed of non-magnetic materials, and stands in an enclosure in Greenwich Park, 350 yards to the east of the Observatory, on a site carefully chosen for its freedom from abnormal magnetic conditions. In the enclosure there are three sets of thermometers used for ordinary eye observations, the thermometers for solar and terrestrial radiation, and two rain-gauges.

The anemometers, three rain-gauges, and the sunshine recorder are fixed above the roof of the Octagon Room (the ancient part of the Observatory).

§ 3. *Subjects of Observation in the year 1910.*

The observations comprise determinations of absolute magnetic declination, horizontal force, and dip; continuous photographic record of the variations of declination, horizontal force, and vertical force; eye observations of the ordinary meteorological

instruments, including the barometer, dry and wet-bulb thermometers, radiation and earth thermometers, and of thermometers placed on the roof of the Magnet House ; continuous photographic record of the variations of the barometer, dry and wet-bulb thermometers, and electrometer (for atmospheric electricity) ; continuous automatic record of the direction, pressure, and velocity of the wind, and of the amount of rain ; registration of the duration of sunshine, and amount of ozone ; observations of some of the principal meteor showers ; general record of ordinary atmospheric changes of weather, including numerical estimation of the amount of cloud, special cloud observations in connection with the International Balloon ascents, and occasional phenomena.

Since 1885, Greenwich civil time, reckoning from midnight to midnight, and counting from 0 to 24 hours, has been employed throughout the magnetical and meteorological sections.

§ 4. *Magnetic Instruments.*

DECLINATION MAGNET FOR ABSOLUTE DETERMINATIONS.—Since 1899 January 1, regular observations of declination have been made in the Magnetic Pavilion. The hollow cylindrical magnet Elliot No. 75 is used in conjunction with a telescope by Troughton and Simms, placed on a pier about 2 feet south of the magnet. The magnet is about 4 inches long, and at one end is an engraved glass scale for collimation. The telescope is 21 inches long, and the aperture of its object-glass is 2 inches ; its horizontal circle is 16·6 inches in diameter, divided to 5' and read by verniers to 5". It has no vertical circle. The eye-piece has one fixed horizontal wire and one vertical wire, moved by a micrometer screw, the value of one revolution of which is 1' 34"·2. The adopted collimation reading throughout the year was 100^r·280.

The vertical axis of the telescope is adjusted by means of a fixed level, one division of which corresponds to 1"·15. The level correction for inequality of the pivots of the axis of the telescope was found in 1898 to be $-6^{\text{div}}\cdot 0$ or $-6''\cdot 9$.

The reading of the azimuth circle corresponding to the astronomical meridian is determined by observations of Polaris, taken once a week whenever practicable. The collimation error of the magnet collimator is also determined weekly, by observing the position of the magnet in its usual position with the scale direct, then with the scale reversed (by turning the magnet through 180° in its carrier, about the longitudinal axis) ; the observations are repeated quickly several times. In the reduction of the observations of declination, the determinations of collimation error and azimuth zero reading are combined into half-yearly means.

The torsion effect of the silk suspending skein is eliminated as nearly as possible, and any small effect still remaining is allowed for. The reading of the torsion circle, which corresponds to free suspension in the plane of the magnetic meridian, and the ratio of the torsion couple, due to 90° of twist on the thread, to the couple due to the Earth's horizontal magnetic force, are determined weekly.

Declination observations are usually made four times daily, at 9^h , 12^h , 15^h , and 21^h .

DIP INSTRUMENT.—This instrument was designed by Sir G. B. Airy, and constructed by Troughton and Simms. It is mounted in the Magnetic Pavilion on a slate slab supported by a braced wooden stand built upon a pier insulated from the floor. It was designed so that needles of three different lengths could be used, but in practice only those 3 inches in length have been used since 1898 September 30. The pivots of the needles rest on agate bearings within a gun-metal box with back and front of glass. On the inner side of the front glass (which is parallel to the plane of vibration of the needle) is etched a graduated circle, $9\frac{3}{4}$ inches in diameter, divided to $10'$ and read by two verniers to $10''$. The verniers are thin plates of metal with notches instead of marks, for use with transmitted light. They are attached to a frame which can move about a horizontal axis nearly coincident with the pivot axis of the needles; two microscopes are mounted on this frame, for observation of the two ends of the needle.

The inclination of the needle is observed by turning the movable frame till the two ends of the needle (seen as a dark object in a bright field) come into view in the microscopes. The position of the movable frame is read by the circle and verniers, and the position of the needle relative to the frame is read off on glass scales within the microscopes. These scales are divided to $1000''$, and can be read by estimation to $100''$. A brass zenith-point needle is used to determine the zenith-point reading.

The gun-metal box is mounted on a circular horizontal plate which can be rotated in azimuth, its position being read on a graduated circle by fixed verniers.

There are two levels, at right angles, on the base-plate; the level is adjusted from time to time, and the readings of dip are corrected for any small outstanding level error (generally amounting to a few seconds of arc).

Observations are made only in the plane of the magnetic meridian. The needle is first magnetised by double touch, giving it nine strokes on each of its sides. Its inclination to the horizontal, when placed in the instrument, having been read, the whole apparatus is reversed in azimuth, and another reading taken. The needle pivots are then reversed on the agate bearings, and two more observations, in reversed posi-

tions of the instrument, are made. We will denote the mean of these four determinations of dip by θ_1 . The needle is then taken out, remagnetised in the reverse direction, and four more observations are made in the same way, giving another mean reading θ_2 .

Dip observations are made twelve times in each calendar month, at approximately equal intervals.

A systematic difference between θ_1 and θ_2 is assumed to indicate that the mass centre of the needle is not in the axis of the pivots. It may easily be seen that, on this supposition, the true inclination θ is given by the relation,

$$\tan \theta = \frac{1}{2} (\tan \theta_1 + \tan \theta_2).$$

The values of the dip given in this volume are obtained from this formula.

The formula for the dip which has hitherto been adopted is

$$\theta^1 = \frac{1}{2}(\theta_1 + \theta_2).$$

The difference between θ and θ^1 varies approximately as the square of $\theta_1 - \theta_2$, and becomes appreciable only when the needle is in bad adjustment. As it is always of the same sign, however, it has been decided to apply it as a correction to the values of the dip given in preceding years, as in the following table:—

Correction	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
to															
B ₁	+ "6	+ "9	+ "3	+ "2	- "9	+ "4	- "1	+ "2	+ "2	+ "3	+ "2	+ "3	+ "4	+ "3	+ "3
B ₂	+10	+23	+4	-1	-5	+7	-4	+2	+4	+3	+3	+1	+1	+2	+2
C ₁	+4	+15	+12	+9	+7	+20	+13	+16	+18	+19	+2	+3	+29	+23	+23
C ₂	-3	+9	+7	+3	-5	+6	-3	+3	+2	+2	+2	+3	+1	+1	+1
D ₁	-1	+7	+2	0	-10	+10	-4	0	0	+3	+7	0	0	0	+2
D ₂	+1	+10	+8	+4	-5	+12	+1	+3	+3	+3	+4	+5	+4	+5	+6
	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897
B ₁	+ "3	+ "4	+ "6	+ "2	+ "1	+ "1	+ "1	+ "1	+ "1	"0	+ "1	"0	+ "1	+ "1	+ "2
B ₂	+1	+1	+1	0	0	+1	0	0	0	0	0	0	0	0	+1
C ₁	+24	+25	+24	+24	+30	+30	+28	+27	+32	+31	+31	+30	+30	+25	+28
C ₂	+2	+2	+2	+3	+1	+3	+5	+8	+5	+4	+4	+4	+5	+4	+4
D ₁	+14	+8	+9	+3	+8	+7	+9	+17	+10	+7	+8	+7	+6	+10	+19
D ₂	+5	+6	+6	+8	+7	+8	+6	+4	+3	+5	+5	+6	+7	+5	+6
	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910		
D ₁	+ "25	+ "27	+ "24	+ "29	+ "30	+ "32	+ "40	+ "32	+ "24	+ "19	+ "3	+ "1	"0		
D ₂	+7	+9	+16	+15	+12	+12	+13	+11	+11	+1	0	+22	+22		

The correction is applied only from the beginning of 1868, since before July 1867 no correction for level was determined. Between the latter date and 1875 January 1, the level error was determined but not applied, so that the correction for level error is combined with the former correction during that period; this accounts for the negative sign of some of the corrections for these years.

DEFLECTION INSTRUMENT FOR ABSOLUTE DETERMINATIONS OF HORIZONTAL FORCE.— This instrument (known as Gibson No. 3) is similar to those issued from the Kew Observatory. It is mounted on a slate slab in the Magnetic Pavilion in the same way as the dip instrument.

The deflected magnet is 3 inches long, and carries a small plane mirror, to which is directed a telescope fixed to, and rotating with, the frame that carries also the suspension piece of the deflected magnet: a scale fixed to the telescope is seen by reflexion at the plane mirror. The deflecting magnet is a hollow cylinder 4 inches long, containing in its internal tube a collimator, by means of which in another apparatus its time of vibration is observed. In observations of deflection the deflecting magnet is placed on the transverse deflection rod, carried by the rotating frame, at the distances 1.0 foot and 1.3 foot of the engraved scale from the deflected magnet, and with one end towards the deflected magnet. Observations are made at the two distances mentioned, with the deflecting magnet both east and west of the deflected magnet, and also with its poles in reversed positions. The fixed horizontal circle is 10 inches in diameter: it is graduated to 10', and read by two verniers to 10".

It will be convenient in this case to include with the description of the instrument an account of the method of reduction employed, in which the Kew precepts, and generally the Kew notation, are followed. Previous to the establishment of the instrument at the Royal Observatory, the values of the various instrumental constants, as determined at the Kew Observatory, were kindly communicated by the late Professor Balfour Stewart, and these have been since used in reduction of all observations made with the instrument at Greenwich.

The instrumental constants as thus furnished are as follows:—

The increase in the magnetic moment of the deflecting magnet produced by the inductive action of unit magnetic force in the English system of absolute measurement = $\mu = 0.00015587$.

The correction for decrease of the magnetic moment of the deflecting magnet required in order to reduce to the temperature 35° Fahrenheit = c

$= 0.00013126 (t - 35) + 0.000000259 (t - 35)^2$; t representing the temperature (in degrees Fahrenheit) at which the observation is made.

Moment of inertia of the deflecting magnet = K . At temperature 30° , $\log. K = 0.66643$; at temperature 90° , $\log. K = 0.66679$.

The distance on the deflection rod from $1^{\text{ft}}.0$ east to $1^{\text{ft}}.0$ west of the engraved scale, at temperature 62° , is too long by 0.0034 inch, and the distance from $1^{\text{ft}}.3$ east to $1^{\text{ft}}.3$ west is too long by 0.0053 inch. The coefficient of expansion of the scale for 1° is $.00001$.

The adopted value of K was confirmed in the year 1878 by a new and entirely independent determination made at the Royal Observatory, giving $\log. K$ at temperature $30^\circ = 0.66727$.

Let m = Magnetic moment of deflecting or vibrating magnet.

X = Horizontal component of Earth's magnetic force.

Then, if in the two deflection observations, r_1, r_2 , be the apparent distances of centre of deflecting magnet from deflected magnet, corrected for scale-error and temperature (about 1.0 and 1.3 foot),

u_1, u_2 the observed angles of deflection,

$$A_1 = \frac{1}{2} r_1^3 \sin u_1 \left\{ 1 + \frac{2\mu}{r_1^3} + c \right\}$$

$$A_2 = \frac{1}{2} r_2^3 \sin u_2 \left\{ 1 + \frac{2\mu}{r_2^3} + c \right\}$$

$$P = \frac{A_1 - A_2}{\frac{A_1}{r_1^2} - \frac{A_2}{r_2^2}} \quad [P \text{ being a constant depending on the distribution of magnetism in the deflecting and deflected magnets},]$$

we have, using for reduction of the observations a mean value of P :—

$$\frac{m}{X} = A_1 \left(1 - \frac{P}{r_1^2} \right), \text{ from observation at distance } r_1.$$

$$\frac{m}{X} = A_2 \left(1 - \frac{P}{r_2^2} \right), \text{ from observation at distance } r_2.$$

The mean of these is adopted as the true value of $\frac{m}{X}$.

In calculating the value of P as well as the values of the four factors within brackets, the distances r_1 and r_2 are taken as being equal to 1.0 ft. and 1.3 ft. respectively. The expression for P is not convenient for logarithmic computation, and, in practice, its

value for each observation has, since the year 1877, been calculated from the expression

$$\frac{\text{Log. } A_1 - \text{Log. } A_2}{\text{modulus}} \times \frac{r_1^2 \times r_2^2}{r_2^2 - r_1^2} = (\text{Log. } A_1 - \text{Log. } A_2) \times 5.64.$$

For determination, from the observed vibrations, of the value of mX :—let T_1 = time of vibration of the deflecting magnet, corrected for rate of chronometer and arc of vibration,

$\frac{H}{F}$ = ratio of the couple due to torsion of the suspending thread to the couple due to the Earth's magnetic force. [This is obtained from the formula $\frac{H}{F} = \frac{\theta}{90^\circ - \theta}$, where θ = the angle through which the magnet is deflected by a twist of 90° in the thread.]

$$\text{Then } T^2 = T_1^2 \left\{ 1 + \frac{H}{F} + \mu \frac{X}{m} - c \right\}$$

$$\text{and } mX = \frac{\pi^2 K}{T^2}.$$

The corrected time of vibration of the deflecting magnet, printed in the tables of results, is the mean of 100 vibrations observed immediately before, and of 100 vibrations observed immediately after the observations of deflection, corrected for temperature, rate of chronometer, semi-arc of vibration, induction, and torsion force.

From the values of mX and $\frac{m}{X}$ thus calculated, m and X are deduced. The actual computation is made in the British system of units (foot—grain—second). The derived value of X is then reduced to C.G.S. units, as given in the tables.

Observations of the absolute horizontal magnetic force are made twice monthly.

DECLINATION VARIOMETER.—The magnet used in this instrument is 2 feet long, $1\frac{1}{2}$ inches wide, and $\frac{1}{4}$ inch thick. It is suspended by a skein of silk, consisting of a bundle of fine threads bound together at intervals of 6 or 7 inches: the skein is about 12 feet long, 6 feet of which is vertical. The magnet is taken from its carrier at the beginning of each year, in order to remove any torsion which may have accumulated; this is done by stretching the skein under the weight of a brass torsion rod for a few hours, adjusting the torsion circle till the bar rests in the magnetic meridian. The magnet is enclosed in a double wooden box, and is encircled by a copper damper to reduce accidental vibrations.

The photographic registration takes place in the usual way, on a horizontal cylinder which revolves once in 26 hours; the same sheet also receives the record of the horizontal force variometer. The illumination is by gas-light. The photographic sheets are changed daily at 11 a.m. On each sheet a reference line is photographed, by a

fixed spot of light. The traces are interrupted automatically for 4 minutes at every hour, to afford a time scale. By another shutter the observer occasionally cuts off the light for a few minutes, noting the time; this facilitates the numeration of the hourly breaks. The length of 24 hours on the sheet is about 13.3 inches.

The distance between the concave speculum mirror carried by the magnet, and the surface of the cylinder, is 134.4 inches. Since a movement of the mirror through 1° produces 2° of motion in the reflected ray, a change of 1° in declination corresponds to 4.691 inches on the photographic paper. A card-board strip, graduated on this scale to degrees and minutes, is prepared for reading from the sheets.

The base line is laid down as follows: the movement of the magnet is assumed to be identical with that of the absolute declination magnet, so that every observation with the latter affords a value of the base line. These values (of which four are obtained daily) are taken in monthly groups, the means being adapted for use throughout the corresponding months. Then, by means of the card-board scale, a base line (whose ordinate represents some convenient quantity) is laid down upon each sheet; from this line the hourly ordinates (see p. E xiv) are measured.

No eye readings of the position of this magnet are taken.

HORIZONTAL FORCE VARIOMETER.—The magnet used in this instrument is 2 feet long, $1\frac{1}{2}$ inches broad, and about $\frac{1}{4}$ inch thick; it is enclosed in a double wooden box. The bifilar suspension consists of a silk skein passing under two small pulleys, which are attached to a vernier piece used in connection with a torsion circle on the frame which holds the magnet. The effective length of each branch of the skein is about 7^{ft.} 6^{in.}; the distances between the branches at the upper and lower ends are respectively 1^{in.}·14 and 0^{in.}·80. The present skein was mounted in 1909 December.

The torsion circle is fixed relative to the magnet, while the vernier is movable; the circle is divided to half degrees, and read by vernier to 1'. The torsion is adjusted so as to make the magnet hang approximately transverse to the magnetic meridian, the north magnetic pole being west. Accidental vibrations of the magnet are reduced by a copper damper.

The changes of horizontal force are registered photographically on the cylinder already described in connection with the declination variometer; the same reference line is used for each trace, and the arrangements for interruption of the traces are similar.

In the present case eye-readings of the position of the magnet can also be taken by

means of an auxiliary mirror, telescope, and scale. The eye observations are usually made at $9\frac{1}{2}^h$, $12\frac{1}{2}^h$, $15\frac{1}{2}^h$, and $20\frac{1}{2}^h$.

Since 12 inches of the fixed scale corresponds to $30^{\text{div}} \cdot 85$, while the mirror is $90 \cdot 84$ inches distant (in a normal direction) from the scale, it appears that, for a change of one division of scale-reading, the magnet is turned through an angle of $7' \cdot 21'' \cdot 6$, or (in circular measure) $0 \cdot 002141$. We will denote these two corresponding quantities by k and k_1 respectively.

The magnet should be within two or three degrees of arc on either side of the ideal position (*i.e.* magnetic east and west direction), if it is to indicate truly the changes in the magnitude of the horizontal magnetic force, without regard to small changes in its direction. Suppose ϕ is the angle of torsion, and θ the circular measure of the deviation of the magnetic axis from the ideal position, θ being reckoned positive when the north pole of the magnet is north of west; then the variation of the horizontal force—in terms of the whole horizontal force as unit—which will produce angular motion of the magnet corresponding to change of one scale-division, is

$$k (\cot \phi + \tan \theta).$$

Changes in θ are easily measured by the fixed scale; but there is no direct means of determining the scale zero, *viz.*, the scale-reading for the position $\theta = 0$. This, together with the value of the angle of torsion, is determined annually (in order to break the continuity of the photographic register as seldom as possible) by the following method.

The torsion-circle being set so that the magnet is nearly east and west, readings of the torsion vernier (V_1), of the scale (S_1), and of the time of vibration (T_1) in this position, are carefully taken. The magnet is then taken out and replaced in the reverse position, end to end, in its carrier; the magnetic couple being thus reversed, the vernier-reading on the torsion scale must be changed by twice the angle of torsion (which is approximately known beforehand) in order to maintain the magnet transverse to the meridian. A finer adjustment is made, if necessary, while the magnet is in position. Corresponding readings are taken, of vernier (V_2), scale (S_2), and time of vibration (T_2). Lastly, the magnet is replaced in its original position, in which it remains (in general) until the following year's torsion observations. Again the three readings, V_3 , S_3 , T_3 , are taken.

Then for the angle of torsion we have

$$\phi = \frac{1}{4}(2V_2 - V_1 - V_3) + \frac{1}{2} k_1(S_1 + S_2 - 2S_3),$$

while the scale zero S_0 is given by the formula

$$S_0 = \frac{1}{4}(S_1 + S_3 + 2S_2) + \frac{1}{k} \frac{T_1 + T_3 - 2T_2}{T_1 + T_3 + 2T_2} \cot \phi$$

Two determinations of ϕ and S_0 are made by taking two sets of observations of S, V, and T in each position of the magnet, with slightly different vernier readings.

The above method of determining the scale value was not used before the beginning of 1911, but the formulæ could be applied to the observations taken in connection with the method formerly used (a description of the latter is given in the volumes for 1908 and earlier years). A table of corrections (calculated from these formulæ) appeared in the Introduction to the Magnetical Observations for 1909 (see p. xv.), giving the percentage error in the scale values adopted for the horizontal force magnetographs in the years 1883–1909.

From experiments on 1910 January 31, it was found that the angle of torsion was $41^\circ 37'$, and the scale zero was 53.28; from similar experiments on 1910 December 30, the corresponding values found were $41^\circ 56'$ and 56.79. The mean scale reading during the year 1910 was about 52. The adopted values of ϕ and θ for the reduction of the observations for 1910 February to December are $41^\circ 44'$ and 0. Thus the value of $\cot \phi + \tan \theta$ is 1.12106.*

Since the distance between the concave mirror carried by the magnet and the surface of the cylinder is 136.8 inches, the length on the cylinder which corresponds to a change of 0.01 of the whole horizontal force is $2 \times 0.01 \times 136.8 \div (\cot \phi + \tan \theta) = 2^{\text{in}}.441$ during the year 1910 February to December; the cardboard scale used for measuring the curves is constructed with this as unit.

As the indications of horizontal force are in a slight degree affected by the small changes to which the Magnet Basement is subject, a thermometer, the bulb of which reaches considerably below the attached scale, is placed in a nearly upright position on the outer magnet box, with its bulb projecting well into the interior of the inner box. Readings of this thermometer are usually taken at 9^h, 10^h, 11^h, 12^h, 13^h, 14^h, 15^h, 16^h, and 21^h. An index correction of $-0^\circ.3$ has been applied to all the readings.

The temperature coefficient of the magnet was determined by artificially heating the Magnet Basement to different temperatures, and observing the change of position of the magnet produced thereby. Such experiments were made in the years 1868, 1885, and 1886 (see previous volumes for details). A discussion of the observations taken in 1885 and 1886 shows that the correction for reduction to temperature 32° (expressed in terms of the whole horizontal force) is $(+ - 32) \times 0.0000936 + (+ - 32)^2 \times 0.00002074$, the temperature \pm being in degrees Fahrenheit. The decrease of horizontal force for

* During January, pending alteration of the mounting, the magnet was set with torsion circle reading 140° instead of 149° . Allowing for the correction when $\theta = 9^\circ$, the value of $\cot \phi + \tan \theta$ was 0.96926 and the unit of the paper scale $2^{\text{in}}.823$.

an increase of 1° of temperature would thus be $\cdot 00021$ at 60° , $\cdot 00023$ at 65° , and $\cdot 00025$ at 70° .

The eye readings of the position of the magnet, in conjunction with the photographic record of the position at the same times, serve as a check on the constancy of the recording arrangements.

VERTICAL FORCE VARIOMETER.—The magnet used in this instrument is $1\frac{1}{2}$ feet long, and lozenge-shaped, being broad at the centre and pointed at the ends. The steel knife-edge, which is 8 inches long, and passes through an aperture in the magnet, rests on two agate planes. The magnet is placed unsymmetrically on the knife edge, being nearer to its southern end. The axis of vibration was originally in the magnetic meridian, but is now a few degrees distant, on account of the secular change of declination.

Two steel screw stalks, carrying adjustable screw weights, are attached to the magnet, one being vertical in order to vary the sensitiveness, the other horizontal in order to adjust the balance of the magnet, which should rest in a nearly horizontal position. Formerly a copper damper encircled the magnet, but, as it was found to be unnecessary, it has not been used since 1902. The magnet and supporting frame are enclosed in a wooden box with suitable glass-covered apertures. The temperature within the box is indicated by a thermometer, the bulb of which projects well into the interior of the box.

The photographic arrangements are generally similar to those already described in connection with the declination and horizontal force variometers. The cylinder carrying the photographic sheet is in this case vertical, and also receives the record of the variations of barometric pressure. The time scale is the same as for the other magnetic registers.

The scale coefficient of the instrument is determined by the method of vibrations. When the magnet is approximately horizontal, and transverse to the magnetic meridian, the variation of the vertical force, in terms of the whole vertical force, which will produce a small angular motion θ (measured in radians) = $\cotan \text{ dip} \times \left(\frac{T^1}{T}\right)^2 \times \theta$; T and T^1 are the times of vibration of the magnet in the vertical and horizontal planes respectively.

Observations of T are made once a week by means of the telescope and scale provided for eye readings of the position of the magnet. The mean of 54 observations made during the year gives the value $16^s\cdot 891$.

The time of vibration in the horizontal plane (T^h) is determined once every three years, as the observation requires the removal of the magnet from its box. The magnet, with all its attached parts, is suspended from a tripod, with its broad side horizontal. The arc of vibration is kept small. Observations on 1908 December 31 gave for the time of vibration in the horizontal plane $16^s.891$. This value has been adopted for the year 1910.

Since the distance between the concave mirror of the magnet and the surface of the cylinder is 100.2 inches, the length on the cylinder, in inches, which corresponds to a change of 0.01 part of the whole vertical force = $2 \times 100.2 \times \tan \text{dip} \times \left(\frac{T}{T^h}\right)^2 \times 0.01$. Taking $T = 16^s.891$, $T^h = 16^s.891$, and $\text{dip} = 66^\circ 52' 49''$, this length is found to be 4.694 inches. The cardboard scale, which is used for measuring the curves for the year, is constructed with this as unit.

The eye readings, which are taken at $9\frac{1}{2}^h$, $12\frac{1}{2}^h$, $15\frac{1}{2}^h$, and $20\frac{1}{2}^h$, afford a check on the recording arrangements, when compared with the photographic record of the position of the magnet at the same times.

Readings of the temperature within the box are taken at 9^h , 10^h , 11^h , 12^h , 13^h , 14^h , 15^h , 16^h , and 21^h . Experiments made in 1885 and 1886 (details of which are given in the Introduction for 1886) showed that, through the range of temperature to which the magnet is normally exposed, the apparent increase of vertical force for 1° rise of temperature (Fahrenheit) is uniformly 0.000212. No term depending on the square of the temperature is necessary in this case.

§ 5. *Magnetic Reductions.*

The results given in the Magnetic Section refer to the civil day, commencing at midnight.

Before the photographic records of magnetic declination, horizontal force, and vertical force are discussed, they are divided into two groups—one including all days on which the traces show no particular disturbance, and which, therefore, are suitable for the determination of diurnal inequality; the other comprising days of unusual and violent disturbance, when the traces are so irregular that it appears impossible to treat them except by the exhibition of every motion of each magnet through the day. Following the principle of separation hitherto adopted, there are no days in the year 1910 which are classed as days of great disturbance. Days of lesser disturbance are March 27–28, 28–29, June 20, August 22, September 29, December 28–29. When two days are mentioned, it is to be understood that the reference is usually to one set of photo-

graphic sheets extending from noon to noon, and including the last half and the first half respectively of two consecutive civil days.

Through each photographic trace, including those on days of lesser disturbance, a pencil line was drawn, representing the general form of the curve without its petty irregularities. The ordinates of these pencil curves were then measured, with the proper pasteboard scales, at every hour; and from the tables of these measures, for each calendar month, are obtained the mean monthly values for each hour of the day, and the mean daily value of the element for each day of the month. The daily mean is taken from the 24 ordinates 0^h to 23^h . Tables I. and II. contain the results for declination, Tables III. to VI. those for horizontal force, with corresponding tables of temperature, and Tables VII. to X. those for vertical force, with corresponding tables of temperature. In the formation of diurnal inequalities it is unimportant whether a day omitted be a complete civil day, or the parts of two successive civil days making together a whole day, although in the latter case the results are not available for daily values. No days were omitted on account of great disturbance in the formation of these Tables, but from other causes there are omitted in Tables I. and II. for declination, January 12 and 13 and March 16 and 17, in Tables III. to VI. for horizontal force, January 1 to 7, 13 and 31, March 16 and 17 and December 30 and 31, and in Tables VII. to X. for vertical force, December 30 and 31.

Table XI. gives the collected monthly values for declination, horizontal force, and vertical force, and Table XII. the mean diurnal inequalities for the year.

By means of two stoves placed in the Basement, the temperature has been kept nearly constant throughout the year, the endeavour being to keep it as near to 67° as possible. Since 1883 the results in Tables III., V., VII., and IX. have been given as corrected for temperature, as well as without this correction. In Tables XI. and XII., only results corrected for temperature are given. The corrections applied (which are mentioned in the description of each instrument) are founded on the daily and hourly values of temperature given in Tables IV., VI., VIII., and X.

In regard to the formation of the tables of temperature, the hourly readings of the Richard Thermograph were combined so as to give the mean daily values for each day of the month, and the mean monthly values for each hour of the day. To adapt these to represent the temperature within the horizontal and vertical force magnet boxes respectively, the monthly means of the thermograph-readings at 9^h , 10^h , 11^h , 12^h , 13^h , 14^h , 15^h , 16^h , and 21^h were compared with the corresponding means of the eye readings of the thermometers whose bulbs are within the respective magnet boxes, giving corrections to the thermograph-readings at these hours, which were very

accordant, and from which, by interpolation, corrections were obtained for the remaining hours. The nine daily observations gave also the means of reducing the daily thermograph values to the temperature of the interior of the respective magnet boxes. The results are given in Tables IV., VI., VIII., and X.

In order to economise space, the daily values, as exhibited in Tables III. and VII., both uncorrected and corrected, have been diminished by constants. The division in these Tables and in Table XI. indicates that the instrument has been disturbed for experiment or adjustment, or that for some reason the continuity of the values has been broken, the constants deducted being different before and after each break. In the interval between two breaks the values of u and c are each comparable throughout, remarking only that in certain cases it is to be understood that the values are to be taken 1000 greater or less for comparison with adjacent values. See, for example, c in Table III. on May 6, which should be taken as 1005 for comparison with the adjacent values, and similarly in other cases. The excess of the value of c above that of u on any day (supposing c , when the smaller value, to be increased by 1000) shows the correction for temperature that has been actually applied. In Tables II., V., IX., and XII. the separate hourly values of the different elements have been simply diminished by the smallest hourly value.

The variations of declination are given in the sexagesimal division of the circle, and those of horizontal and vertical force in terms of $\cdot 00001$ of the whole horizontal and vertical forces respectively taken as units. In Tables XI. and XII. they have been also expressed in C.G.S. measure.

Table XIII. exhibits the diurnal range of declination and horizontal force on each separate day, as determined from the 24 hourly ordinates of each element measured from the photographic register (as explained on page E xiv), and the monthly means of these numbers, the results for horizontal force being corrected for temperature. The first portion of Table XIV. contains the difference between the greatest and least hourly mean values in each month, for declination, horizontal force, and vertical force, as extracted from Table II. and columns c of Tables V. and IX. In the second portion of the table there are given for each month the numerical sums of the deviations of the 24 hourly values from the mean, taken without regard to sign.

The magnetic diurnal inequalities of declination, horizontal force, and vertical force, for each month and for the year, as given in Tables II., V., and IX., have been treated by the method of harmonic analysis, and the results are given in Tables XV. and XVI.

The values of α_5 and b_5 for the diurnal inequalities for the year were also calculated, but could not be conveniently included in Table XV. They are as follows :—

<u>1910.</u>	α_5 .	b_5 .
Declination	-0.07	0.00
Horizontal Force	+1.2	-0.7
Vertical Force	+0.7	-0.5

In order to give some indication of the accuracy with which the results of observation are represented by the harmonic formula, the sums of squares of residuals remaining after the introduction of m and of each successive pair of terms of the expression on page E 12, corresponding to the single terms of the expressions on page E 13, have been calculated for the mean diurnal inequalities for the year (columns 1, 2, and 3 of Table XII.). The respective sums of squares of residuals are as follows :—

SUMS OF SQUARES OF RESIDUALS OF DIURNAL INEQUALITIES.

	Declination.	Horizontal Force.	Vertical Force.
Sums of Squares of Observed Values (Table XII.)	201.62	299697.0	19273.0
Sums of Squares of Residuals after the introduction of m	100.15	51732.0	4502.1
" " α_1 and b_1	37.08	11129.6	1789.1
" " α_2 and b_2	5.70	2494.7	295.4
" " α_3 and b_3	0.85	527.6	40.1
" " α_4 and b_4	0.10	42.4	13.4
" " α_5 and b_5	0.04	15.2	5.0

The unit in the case of horizontal and vertical force being .00001 of the whole horizontal and vertical forces respectively, it thus appears that there would be no advantage in carrying the approximation (Table XV.) beyond the determination of α_4, b_4 .

As regards Magnetic Dip, the result of each complete observation of dip with each of the needles in ordinary use, is given in Table XVII.; and in Table XVIII., the concluded monthly and yearly values for each needle.

The results of the observations for Absolute Measure of Horizontal Force contained in Table XIX. require no special remark, the method of reduction and all necessary explanation having been given with the description of the instrument employed. The observed result in each month has been also given as reduced to the mean value for the month, by application of the difference between the horizontal force ordinate at the time of observation and the mean value for the month, as obtained from the photographic register.

In order to facilitate the comparison of the diurnal inequalities of magnetism at the different British and other magnetic observatories, an arrangement has been made with the Sub-Committee of the Kew Committee of the Royal Society, by which five quiet days are to be selected at Greenwich in each month of every year for adoption at all these observatories for determination of the monthly diurnal inequalities of declination, horizontal force, and vertical force, thus providing for further discussion results which should be strictly comparable. The particular days selected are given on page E 18, and the results found for Greenwich are contained in Tables XX., XXI., and XXII., which it is interesting to compare with the values found from the records of all days, as given in Tables II., V., IX., and XII.

Reduced copies of the magnetographs for certain disturbed days (mentioned on p. E xiii) have been printed in each volume since 1882. The list of these days since the year 1889 has been selected in concert with M. Mascart, or his successor M. Angot, so that the two Observatories of Val Joyeux (formerly of the Parc Saint Maur) and Greenwich should publish the magnetic registers for the same days of disturbance with a view to the comparison of the results. It is proposed to follow this plan in future years, and if other magnetic observatories should eventually join in the scheme for concerted action, in regard to the publication of their registers, the discussion of magnetic perturbations would be much facilitated.

The plates are preceded by a brief description of *all* other significant magnetic motions (superposed on the ordinary diurnal movement) recorded throughout the year. These, in combination with the plates, give very complete information on magnetic disturbances during the year 1910, affording thereby, it is hoped, facilities for making comparison with solar phenomena.

In regard to the plates, it may be remarked that on each day three distinct registers are usually given, viz.: declination, horizontal force, and vertical force; all necessary information for proper understanding of the plates being added in the notes on page (E 36).

An additional plate (IV.) exhibits the registers of declination, horizontal force,
GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1910.

and vertical force on four quiet days, which may be taken as types of the ordinary diurnal movement at four seasons of the year. These are given for the civil day as exhibiting more clearly the character of the diurnal movement.

The indications of horizontal and vertical force are given precisely as registered; they are therefore affected, slightly as compared with the amount of motion on disturbed days, by the small recorded changes of temperature of the magnets. The recorded hourly temperatures being inserted on the plates, reference to the temperature-correction of the magnets, given at pages Exi to Exiii, will show the effect produced. Briefly, an increase of about $4\frac{1}{2}^{\circ}$ of temperature throws the horizontal force curve upward by 0.001 of the whole horizontal force; an increase of about 5° of temperature throws the vertical force curve downward by 0.001 of the whole vertical force.

The original photographs have been reduced in the proportion of 20 to 11 on the plates, and the corresponding scale values are:—

	mm.	
1° of Declination is	65.53	on the Plates.
0.01 of Horizontal Force is	34.09	" "
0.01 of Vertical Force is	65.56	" "

The scales actually attached to the plates are, however, so arranged as to correspond with the tables of the magnetic section—that is to say, the units for horizontal force and vertical force are 0.0001 of the whole horizontal and vertical forces respectively, the numbers being in some cases increased by 1000 to avoid negative quantities. At the foot of each plate equivalent scales, in C.G.S. measure, are given for each of the magnetic registers.

Since the preceding scale values are not immediately comparable for the different elements, it therefore becomes desirable to refer them all to the same unit, say 0.01 of the horizontal force.

Now, the transverse force represented by a variation of 1° of Declination
 = 0.175 of Horizontal Force,
 and Vertical Force = Horizontal Force \times tan dip [adopted dip = $66^{\circ}.52'.49''$]
 = Horizontal Force \times 2.3422;

whence we have the following equivalent scale values for the different elements:—

mm.						
37.4	on the Declination	Curve	corresponds to 0.01 of Horizontal Force.			
34.1	" Horizontal Force	" "	" "	" "	" "	
28.0	" Vertical Force	" "	" "	" "	" "	

If we divide the last three numbers by 0·18531, we get 202^{mm}·1, 184^{mm}·0, 151^{mm}·1, which represent the lengths on the respective three curves equivalent to 0·01 C.G.S. unit.

The subjoined table gives the values of Magnetic Elements determined at the Royal Observatory, Greenwich :—

Year.	Declination West.	Horizontal Force, C.G.S. Unit.	Dip. †	Year.	Declination West.	Horizontal Force, C.G.S. Unit.	Dip. †
1841	23.16'2	...	...	1876	19. 8'3	0·1797	67.41'0
1842	23.14'6	...	...	1877	18.57'2	0·1799	67.39'7
1843	23.11'7	...	69. 0'6	1878	18.49'3	0·1801	67.38'2
1844	23.15'3	...	69. 0'3	1879	18.40'5	0·1803	67.37'0
1845	22.56'7	...	68.57'5	1880	18.32'6	0·1804	67.35'7
1846	22.49'6	0·1731	68.58'1	1881	18.27'1	0·1805	67.34'7
1847	22.51'3	0·1736	68.59'0	1882	18.22'3	0·1804	67.34'2
1848	22.51'8	0·1731	68.54'7	1883	18.15'0	0·1810	67.31'7
1849	22.37'8	0·1733	68.51'3	1884	18. 7'6	0·1812	67.29'7
1850	22.23'5	0·1738	68.46'9	1885	18. 1'7	0·1816	67.28'0
1851	22.18'3	0·1744	68.40'4	1886	17.54'5	0·1816	67.27'1
1852	22.17'9	0·1745	68.42'7	1887	17.49'1	0·1818	67.26'6
1853	22.10'1	0·1748	68.44'6	1888	17.40'4	0·1820	67.25'6
1854	22. 0'8	0·1749	68.47'7	1889	17.34'9	0·1821	67.24'3
1855	21.48'4	0·1756	68.44'6	1890	17.28'6	0·1823	67.23'0
1856	21.43'5	0·1759	68.43'5	1891	17.23'4	0·1825	67.21'5
1857	21.35'4	0·1769	68.31'1	1892	17.17'4	0·1827	67.20'0
1858	21.30'3	0·1762	68.28'3	1893	17.11'4	0·1829	67.17'9
1859	21.23'5	0·1761	68.26'9	1894	17. 4'6	0·1829	67.17'4
1860	21.14'3	...	68.30'1	1895	16.57'4	0·1832	67.16'1*
1861	21. 5'5	0·1773	68.24'6	1896	16.51'7*	0·1833*	67.15'1*
1862	20.52'6	0·1757	68.15'8	1897	16.45'8*	0·1836	67.13'5*
1863	20.45'9	0·1761	68. 9'6	1898	16.39'2*	0·1838	67.12'1
1864	...	0·1763	68. 7'0	1899	16.34'2	0·1842	67.10'5
1865	20.33'9	0·1765	68. 4'1	1900	16.29'0	0·1844	67. 8'8
1866	20.28'0	0·1765	68. 2'7	1901	16.26'0	0·1848	67. 6'4
1867	20.20'5	0·1771	68. 1'3	1902	16.22'8	0·1850	67. 3'8
1868	20.13'1	0·1776	67.57'2	1903	16.19'1	0·1850	67. 1'2
1869	20. 4'1	0·1777	67.56'5	1904	16.15'0	0·1852	66.57'6
1870	19.53'0	0·1780	67.54'8	1905	16. 9'9	0·1852	66.56'3
1871	19.41'9	0·1782	67.52'5	1906	16. 3'6	0·1852	66.55'6
1872	19.36'8	0·1785	67.50'3	1907	15.59'8	0·1853	66.56'2
1873	19.33'4	0·1787	67.47'8	1908	15.53'5	0·1853	66.56'3
1874	19.28'9	0·1791	67.45'8	1909	15.47'6	0·1853	66.54'1
1875	19.21'2	0·1795	67.43'6	1910	15.41'2	0·1853	66.52'8
		0·1795	67.42'4				

* Corrected for the effect of the iron in the new buildings (see p. E ii).

† These values of the dip differ slightly in some instances from those given in previous volumes, on account of the correction described on p. E v.

In 1861 the new Unifilar Apparatus for absolute Horizontal Force and the Airy Dip-Circle were introduced, both sets of apparatus being used in that year. In 1864 the excavation of the Magnetic Basement caused the suspension of complete Declination Observations.

Slight interruptions in the traces on the plates are due to various causes. In the originals there are breaks at each hour for time scale, so slight, however, that in the copies the traces could usually be made continuous without fear of error: in a few cases, however, this could not be done. Further, to check the numeration of hours, the observer interrupts the register at definite times for about five minutes, usually at or near 9^h 30^m, 12^h 30^m, and 20^h 30^m Greenwich civil time.

The original photographic records were first traced on thin paper, the separate records on each day being arranged one under another on the same sheet, and great attention being paid to accuracy as regards the scale of time. Each sheet containing the records for one or more days was then reduced by photo-lithography, in the proportion of 20 to 11, to bring it to a convenient size for insertion in the printed volume.

§ 6. *Meteorological Instruments.*

STANDARD BAROMETER.—The standard barometer, mounted in 1840 on the southern wall of the western arm of the Upper Magnet Room, is Newman No. 64. Its tube is 0ⁱⁿ·565 in diameter, and the depression of the mercury due to capillary action is 0ⁱⁿ·002, but no correction is applied on this account. The cistern is of glass, and the graduated scale and attached rod are of brass; at its lower end the rod terminates in a point of ivory, which in observation is made just to meet the reflected image of the point as seen in the mercury. The scale is divided to 0ⁱⁿ·05, sub-divided by vernier to 0ⁱⁿ·002.

The readings of this barometer, until 1866 August 20, are considered to be coincident with those of the Royal Society's flint-glass standard barometer. It then became necessary to remove the sliding rod for repair of its slow motion screw, which was completed on August 30. Before the removal of the rod the barometer had been compared with three other barometers, one of which, during repair of the rod, was used for the daily readings. After restoration of the rod, a comparison was again made with the same three barometers, from which it appeared that the readings of the standard, in its new state, required a correction of $-0^{\text{in}}\cdot006$, all three auxiliary barometers giving accordant results. This correction has been applied to every observation since 1866 August 30.

An elaborate comparison of the standard barometers of the Greenwich and Kew Observatories, made in the spring of the year 1877, under the direction of the Kew Committee, by Mr. Whipple, showed that the difference between the two barometers (after applying to the Greenwich barometer-readings the correction $-0^{\text{m}}\cdot006$) did not exceed $0^{\text{m}}\cdot001$. (*Proceedings of the Royal Society*, vol. xxvii. page 76.)

The height of the barometer cistern above the mean level of the sea is 159 feet, being $5^{\text{ft}}\cdot 2^{\text{in}}$ above Mr. Lloyd's reference mark in Bradley's Transit room adjoining the present Transit-circle room. (*Philosophical Transactions*, 1831.)

The barometer is read at 9^{h} , 12^{h} (noon), 15^{h} , 21^{h} (civil reckoning) every day. Each reading is corrected by application of the index-correction above mentioned, and reduced to the temperature 32° by means of Table II. of the "Report of the Committee of Physics" of the Royal Society. The readings thus found are used to determine the value of the instrumental base line on the photographic record.

PHOTOGRAPHIC BAROMETER.—The barometric record is made on the same cylinder as is used for magnetic vertical force. A siphon barometer fixed to the northern wall of the Magnet Basement is employed, the bore of the upper and lower extremities of the tube being about 1.1 inch, and that of the intermediate portion 0.3 inch. A metallic plunger, floating on the mercury in the shorter arm of the siphon, is partly supported by a counterpoise acting on a light lever, leaving a definite part of its weight to be supported by the mercury. The lever carries at its other end a vertical plate of aluminium, having a small horizontal slit, whose distance from the fulcrum is about eight times that of the point of connexion with the float, and whose vertical movement is therefore about four times that of the ordinary barometric column. The light of a gas lamp, passing through this slit and falling on a cylindrical lens, forms a spot of light on the paper. The barometer can, by screw action, be raised or lowered so as to keep the photographic trace in a convenient part of the sheet. A base line is traced on the sheet, and the record is interrupted at each hour by the clock, and occasionally by the observer, in the same way as for the magnetic registers. The length of the time scale is also the same.

The barometric scale is determined by experimentally comparing the measured movement on the paper with the observed movement of the standard barometer; one inch of barometric movement is thus found = $4^{\text{m}}\cdot16$ on the paper. Ordinates measured for the times of observation of the standard barometer, combined with the corrected readings of the standard barometer, give apparent values of the base line, from which mean values for each day are formed; these are written on the sheets and new base lines drawn, from which the hourly ordinates (see page E xxxiii) are

measured as for the magnetic registers. As the diurnal change of temperature in the Basement is very small, no appreciable differential effect is produced on the photographic register by the expansion of the column of mercury.

DRY AND WET BULB THERMOMETERS.—The Standard dry and wet bulb thermometers and maximum and minimum self-registering thermometers, both dry and wet, are mounted on a revolving frame planned by Sir G. B. Airy. A vertical axis, fixed in the ground, carries the frame, which consists of a horizontal board as base, of a vertical board projecting upwards from it and connected with one edge of the horizontal board, and of two parallel inclined boards (separated about 3 inches) connected at the top with the vertical board and at the bottom with the other edge of the horizontal board: the outer inclined board is covered with zinc, and the air passes freely between all the boards. The dry and wet bulb thermometers are mounted near the centre of the vertical board, with their bulbs about 4 feet from the ground; the maximum and minimum thermometers for air temperature are placed towards one side of the vertical board, and those for evaporation temperature towards the other side, with their bulbs at about the same level as those of the dry and wet bulb thermometers. A small roof projecting from the frame protects the thermometers from rain. The frame is turned in azimuth several times during the day (whether cloudy or clear), so as to keep the inclined side always towards the sun. In 1878 September a circular board, 3 feet in diameter, was fixed, below the frame, round the supporting post, at a height of 2 feet 6 inches above the ground, with the object of protecting the thermometers from radiation from the ground. In the summer of 1886 experiments were made on days of extreme heat, with the view of determining the effect of the circular board in this respect, an account of which will be found at the end of the Introduction to the volume for the year 1887. The effect of radiation with the circular board removed was found to be insensible.

On 1899 January 4 the thermometer stand was moved to the Magnetic Pavilion enclosure, where the thermometers are set up in an open position, about 40 feet south-west of the building.

The corrections to be applied to the thermometers in ordinary use are determined, usually once each year for the whole extent of scale actually employed, by observations at 32° in pounded ice and by comparison with the standard thermometer No. 515, kindly supplied to the Royal Observatory by the Kew Committee of the Royal Society.

The dry bulb thermometer used throughout the year was Negretti and Zambra, No. 45354. The correction $-0^{\circ}\cdot4$ has been applied to the readings of this

thermometer. The wet bulb thermometer used throughout the year was Negretti and Zambra, No. 94737. The correction $-0^{\circ}\cdot 2$ has been applied to the readings of this thermometer.

The self-registering thermometers for temperature of air and evaporation are all by Negretti and Zambra. The maximum thermometers are on Negretti and Zambra's principle, the minimum thermometers are of Rutherford's construction. The readings of Negretti and Zambra, No. 83760, for maximum temperature of the air, required no correction; to those of Negretti and Zambra, No. 38338, for minimum temperature of the air, a correction of $+0^{\circ}\cdot 1$ has been applied; to those of Negretti and Zambra, No. 102104, for maximum temperature of evaporation, a correction of $+0^{\circ}\cdot 1$ has been applied; and to those of Negretti and Zambra, No. 98508, for minimum temperature of evaporation, a correction of $+0^{\circ}\cdot 1$ has been applied.

The dry and wet bulb thermometers are read at 9^h, 12^h (noon), 15^h, 21^h (civil reckoning) every day. Readings of the maximum and minimum thermometers are taken at 9^h, 15^h and 21^h every day. Those of the dry and wet bulb thermometers are employed to correct the indications of the photographic dry and wet bulb thermometers.

In the year 1887, four thermometers—a dry-bulb and a wet-bulb, with maximum and minimum thermometers for air temperature—were mounted in a Stevenson screen, with double louvre-boarded sides, of the pattern adopted by the Royal Meteorological Society, which is fully described in the *Quarterly Journal* of the Society, vol. x. page 92. The screen is planted in the Magnet ground 20 feet east-north-east of the photographic thermometers, and its internal dimensions are, length 18 inches, width 11 inches, and height 15 inches, the bulbs of the thermometers placed in it being at a height of about 4 feet above the ground. The dry-bulb thermometer is Hicks No. 262495, to the readings of which a correction of $-0^{\circ}\cdot 1$ has been applied. The wet-bulb is Hicks No. 268525, and the maximum thermometer is Negretti and Zambra, No. 85059, neither of which required correction. To the readings of the minimum thermometer, Negretti and Zambra, No. 68873, a correction of $+0^{\circ}\cdot 1$ has been applied.

Experiments were made in the summer of the year 1887 on days of extreme heat, to determine whether, with the door of the screen open, the thermometers were in any way influenced by radiation from external objects, an account of which will be found

at the end of the Introduction to the volume for 1887. The effect of radiation with the door of the screen open was found to be insensible.

On 1900 March 31, an additional Stevenson screen, similar to the screen already mounted in the Magnet ground, was erected in the Magnetic Pavilion enclosure, 15 feet north-east of the open stand. The dry and wet-bulb thermometers mounted in this screen are Negretti and Zambra, Nos. 94713 and 94714, of which the former required no correction to its readings. To the readings of the maximum thermometer, Negretti and Zambra, No. 94859, a correction of $-0^{\circ}\cdot4$ has been applied, and to those of the minimum thermometer and the wet-bulb thermometer, Negretti and Zambra, Nos. 85080 and 94714, a correction of $+0^{\circ}\cdot1$ has been applied.

PHOTOGRAPHIC DRY-BULB AND WET-BULB THERMOMETERS.—The apparatus which has been in use since 1887 was designed by Sir W. H. M. Christie, and since 1899 has stood in its present position in the Magnet Ground. It is placed in a shed, 8 feet square, standing upon posts about 8 feet high, and open to the north. The roof slopes towards the south, and there are double protecting boards on the eastern, southern, and western sides; the apparatus is thus screened from the direct rays of the sun, without impeding the circulation of the air. The cylinder which receives the photographic register is $11\frac{1}{2}$ inches long, and $14\frac{1}{2}$ inches in circumference, and revolves once in 26 hours. The two traces fall on the same part of the cylinder, as regards time scale; a long air-bubble in the wet-bulb thermometer column gives the means of registering the indications of the wet bulb (as well as of such degrees and decades of its scale as fall within the bubble), just below the trace of the dry-bulb thermometer, without any interference of the two records, an arrangement which admits of the time scale being made equal to that of all the other registers. The stems of the thermometers are placed close together, each being covered by a vertical metal plate having a fine vertical slit, so that light passes through only at such parts of the bore of the tube as do not contain mercury. Two gas lamps, each at a distance of 21 inches, are placed at such an angle that the light from each, after passing through its corresponding slit and thermometer tube, falls on the photographic paper in one and the same vertical line. Degree lines etched upon the thermometer stems, and painted, interrupt the light sufficiently to produce a clear and sharp indication on the photographic sheet, the line at each tenth degree being thicker than the others, as well as those at 32° , 52° , 72° , &c. The length of scale is from 0° to 120° for each thermometer, the length of 1° being about $0\cdot1$ inch, and the air-bubble in the wet-bulb thermometer is about 12° in length, so that it will always include one of the ten-degree lines. The bulbs, which are 2 inches long and of about $\frac{1}{2}$ an inch in internal bore, are separated horizontally by 5 inches, the tubes of the thermometers having a double bend

above the bulbs, which are placed about 4 feet above the ground. The thermometers are carried by a vertical frame with independent vertical adjustment for each thermometer, so that the register in summer or winter can be brought to a convenient part of the photographic sheet. The revolving cylinder is driven by a pendulum clock contained within the brass case covering the whole apparatus, excepting the thermometer bulbs which project below. It makes one revolution in 26 hours, and the time scale is the same as that for all the other registers. As the cylinder revolves, the light passing through the portion of the thermometer tubes not occupied by mercury imprints on the paper a broad band of photographic trace, corresponding to the dry-bulb register, whose breadth in the vertical direction varies with the height of the mercury in the tube, and a narrower band below, corresponding to the wet bulb. When these are developed, the traces are seen to be crossed by thin white lines, the horizontal lines corresponding to degrees, and the vertical lines to hours, the lower boundary of each trace indicating the thermometric record corresponding to the upper surface of the thermometric column.

The driving clock is made to interrupt the light for a short time at each hour, producing on the sheet the hour lines above mentioned; the observer also occasionally interrupts the register for a short time for proper identification of the hourly breaks.

The bulbs of the thermometers were at first completely protected from radiation by vertical or inclined boards fixed to the thermometer stand, two on the south side, two on the north side, one at the east end, one at the west end, and one below, but with proper spaces for free circulation of air. Experiments made in the summer of the year 1886, an account of which is given at the end of the Introduction for 1887, showed that the north and south boards were unnecessary, and the two south boards and one north board were in consequence removed before commencing regular work with the instrument at the beginning of the year 1887. The south boards were replaced during 1908 as a precaution against indirect effects from the gravel path to the south of the shed.

For a description of the apparatus formerly employed, reference may be made to the Introduction for 1887 and previous years. A comparison of the results given by the old and new apparatus will be found at the end of the Introduction to the year 1887.

RADIATION THERMOMETERS.—These thermometers are placed in the Magnetic Pavilion enclosure, in an open position about 50 feet south-west of the building. The thermometer for solar radiation is a self-registering mercurial maximum thermometer on Negretti and Zambra's principle, with its bulb blackened, and the thermometer

enclosed in a glass sphere from which the air has been exhausted. The thermometer employed throughout the year was Negretti and Zambra, No. 99989. The thermometer for radiation to the sky is a self-registering spirit minimum thermometer of Rutherford's construction, by Horne and Thornthwaite, No. 3120. The thermometers are laid on short grass and freely exposed to the sky ; they require no correction for index-error.

EARTH THERMOMETERS.—These thermometers were made by Adie, of Edinburgh, under the superintendence of Professor J. D. Forbes. They are placed about 20 feet south of the Magnet House.

The thermometers are four in number, placed in one hole in the ground, the diameter of which in its upper half is 1 foot and in its lower half about 6 inches, each thermometer being attached in its whole length to a slender piece of wood. The thermometer No. 1 was dropped into the hole to such a depth that the centre of its bulb was 24 French feet (25·6 English feet) below the surface ; then dry sand was poured in till the hole was filled to nearly half its height. Then No. 2 was dropped in till the centre of its bulb was 12 French feet below the surface ; Nos. 3 and 4 till the centres of their bulbs were respectively 6 and 3 French feet below the surface ; and the hole was then completely filled with dry sand. The upper parts of the tubes carrying the scales were left projecting above the surface ; No. 1 by 27·5 inches, No. 2 by 28·0 inches, No. 3 by 30·0 inches, and No. 4 by 32·0 inches. Of these lengths, 8·5, 10·0, 11·0, and 14·5 inches respectively are in each case tube with narrow bore. The length of 1° on the scales is 1·9 inch, 1·1 inch, 0·9 inch, and 0·5 inch in each case respectively. The ranges of the scales are for No. 1, 46°·0 to 55°·5 ; No. 2, 43°·0 to 58°·0 ; No. 3, 44°·0 to 62°·0 ; and for No. 4, 36°·9 to 68°·0.

The bulbs of the thermometers are cylindrical, 10 or 12 inches long, and 2 or 3 inches in diameter. The bore of the principal part of each tube, from the bulb to the graduated scale, is very small ; in that part to which the scale is attached it is larger ; the fluid in the tubes is alcohol tinged red ; the scales are of opal glass.

The ranges of scale having in previous years been found insufficient, fluid has at times been removed from or added to the thermometers as necessary, corresponding alterations being made in the positions of the attached scales. Information in regard to these changes will be found in previous Introductions.

The parts of the tubes above the ground are protected by a small wooden hut fixed to the ground ; the sides of the hut are perforated with numerous holes, and it has a double roof : in the north face is a plate of glass, through which the readings are

taken. Within the hut are two small thermometers—one, No. 5, with bulb 1 inch in the ground; another, No. 6, whose bulb is freely exposed in the centre of the hut.

These thermometers are read every day at noon, and the readings are given without correction. The index-errors of Nos. 1, 2, 3, and 4 are unknown; No. 6 appears to read too high by $0^{\circ}4$, but no corrections have been applied.

OSLER'S ANEMOMETER.—This self-registering anemometer, devised by A. Follett Osler, for continuous registration of the direction and pressure of the wind and of the amount of rain, is fixed above the north-western turret of the ancient part of the observatory. For the direction of the wind a large vane ($9^{\text{ft.}} 2^{\text{in.}}$ in length), from which a vertical shaft proceeds down to the registering table within the turret, gives motion, by a pinion fixed at its lower end, to a rack-work carrying a pencil. A collar on the vane shaft bears upon anti-friction rollers running in a cup of oil, rendering the vane very sensitive to changes of direction in light winds. The pencil marks a paper fixed to a board moved horizontally and uniformly by a clock, in a direction transverse to that of the motion of the pencil. The paper carries lines corresponding to the positions of N., E., S., and W. of the vane, with transversal hour lines. The vane is 25 feet above the roof of the Octagon Room, 60 feet above the adjacent ground, and 215 feet above the mean level of the sea. A fixed mark on the north-eastern turret, in a known azimuth, as determined by celestial observation, is used for examining at any time the position of the direction plate over the registering table, to which reference is made by means of a direction pointer when adjusting a new sheet on the travelling board. The vane, which had been in use since the year 1841, began in the autumn of 1891 to show signs of weakness; it was taken down in December 1891 and thoroughly repaired. It was satisfactory to find that the anti-friction bearings of the vane, on which the sensitiveness of its motion depends, were in excellent condition, after having been continuously in action for 25 years.

For the pressure of the wind the construction is as follows:—At a distance of 2 feet below the vane there is placed a circular pressure plate (with its plane vertical) having an area of $1\frac{1}{3}$ square feet, or 192 square inches, which, moving with the vane in azimuth, and being thereby kept directed towards the wind, acts against a combination of springs in such way that, with a light wind, slender springs are first brought into action, but, as the wind increases, stiffer springs come into play. For a detailed account of the arrangement adopted, the reader is referred to the Introduction for the year 1866. [Until 1866 the pressure plate was a square plate, 1 foot square, for which in that year a circular plate, having an area of 2 square feet, was substituted and employed until the spring of the year 1880, when the present circular plate, having an area of $1\frac{1}{3}$ square feet, was introduced.] A short flexible

snake chain, fixed to a cross bar in connexion with the pressure plate, and passing over a pulley in the upper part of the shaft, is attached to a brass chain (formerly a copper wire) running down the centre of the shaft to the registering table, just before reaching which the chain communicates with a short length of silk cord, which, led round a pulley, gives horizontal motion to the arm carrying the pressure pencil. The substitution, in the year 1882, of the flexible brass chain for the copper wire, has greatly increased the delicacy of movement of the pressure pencil, every small movement of the pressure plate being now registered. The scale for pressure, in lbs. on the square foot, is experimentally determined from time to time as appears necessary; the pressure pencil is brought to zero by a light spiral spring. During the year 1907 a new set of pressure springs was supplied by Messrs Simms. Advantage was taken of this opportunity to endeavour to simplify the determination of mean pressures by arranging that the scale should change only once, low pressures being represented on twice as large a scale as high ones, and adjusting screws and clamps were also introduced by which the strength could be varied so that the springs could be adjusted to scale, instead of a new scale being determined from time to time.

Whilst the action of the pressure apparatus has been satisfactory for moderate winds, it is believed that the record of occasional very large pressures in years preceding 1882 was due principally to irregular action, in excessive gusts, of the connecting copper wire, but the brass chain being always in tension, the movements of the recording pencil have since been in complete sympathy with those of the pressure plate, and in this condition of the apparatus—that is, since the year 1882—few pressures greater than 30 lbs. have been recorded.

A self-registering rain gauge of peculiar construction forms part of the apparatus: this is described under the heading “Rain Gauges.”

A new sheet of paper is applied to the instrument every day at noon. The scale of time is ordinarily the same as that of the magnetic registers, but by means of a special gearing applied to the clock by Mr. Kullberg in 1894 the table carrying the record can either be driven at the usual rate, or 24 times as fast, in order to give a largely increased time scale for the register of wind pressure during gales, the ordinary sheet thus giving a register for 1 hour instead of 24.

ROBINSON'S ANEMOMETER.—This instrument, made by Mr. Browning, is constructed on the principle described by Dr. Robinson in the *Transactions of the Royal Irish Academy*, vol. xxii., for registration of the horizontal movement of the air, and is mounted above the small building on the roof of the Octagon Room. It

was brought into use in 1866 October. The motion is given by the pressure of the wind on four hemispherical cups, each 5 inches in diameter, the centre of each cup being 15 inches distant from the vertical axis of rotation. The foot of the axis is a hollow flat cone bearing upon a sharp cone, which rises up from the base of a cup of oil. An endless screw acts on a train of wheels furnished with indices for reading off the amount of motion of the air in miles, and a pinion on the axis of one of the wheels draws upwards a rack, to which is attached a rod passing down to the pencil which marks the paper placed on the vertical revolving cylinder in the chamber below. A motion of the pencil upwards through a space of 1 inch represents horizontal motion of the air through 100 miles. The revolving hemispherical cups are 21 feet above the roof of the Octagon Room, 56 feet above the adjacent ground, and 211 feet above the mean level of the sea.

The cylinder is driven by a clock in the usual way, and makes one revolution in 24 hours. A new sheet of paper is applied every day at noon. The scale of time is the same as that of the magnetic registers.

In this and preceding volumes the values of wind velocity V given in the tables are three times the actual velocity v of the cups. From some tests of the Browning instrument, made by Mr. W. H. Dines at Hersham in 1889, on his whirling machine, it appears that the relation between V and v is more correctly given by

$$V = 4.0 + 2.0 v.$$

The instrument thus fails to record wind velocities less than 4 miles per hour; and values of the wind velocity given by the formula $V = 3 v$ are too high when V exceeds 12. Since the two formulæ agree, however, for $V = 12$, the mean values of the wind velocity (which seldom differ much from 12) will be approximately correct in either case; therefore, for the sake of continuity and simplicity, the formula $V = 3 v$ will continue to be used. In future volumes, however, the greatest hourly measures (p. E 83) will be given according to both formulæ, and the least hourly measures will be omitted.

The experiments by Mr. W. H. Dines, above referred to, are described in the Introduction to the volume for 1889.

RAIN GAUGES.—During the year 1910 eight rain gauges were employed, placed at different elevations above the ground, complete information in regard to which will be found at page (E 70) of the Meteorological Section.

The gauge No. 1 forms part of the Osler Anemometer apparatus, and is self-registering, the record being made on the sheet on which the direction and pressure of the wind are recorded. The receiving surface is a rectangular opening

10 × 20 inches (200 square inches in area). The collected water passes into a vessel suspended by spiral springs, which lengthen as the water accumulates, until 0.25 inch is collected. The water then discharges itself by means of the following modification of the siphon. A vertical copper tube, open at both ends, is fixed in the receiver, with one end just projecting below the bottom. Over this tube a larger tube, closed at the top, is loosely placed. The accumulating water, having risen to the top of the inner tube, begins to flow off into a small tumbling bucket, fixed in a globe placed underneath, and carried by the receiver. When full, the bucket falls over, throwing the water into a small exit pipe at the lower part of the globe—the only outlet. This creates a partial vacuum in the globe sufficient to cause the longer leg of the siphon to act, and the whole remaining contents of the receiver then run off, through the globe, to a waste pipe. The spiral springs at the same time shorten, and raise the receiver. The gradual descent of the water vessel as the rain falls, and the immediate ascent on discharge of the water, act upon a pencil, and cause a corresponding trace to be made on the paper fixed to the moving board of the anemometer. The rain scale on the paper was determined experimentally by passing a known quantity of water through the receiver. The continuous record thus gives complete information on the rate of the fall of rain, but the record is liable to interruption when the staging is erected for experiments with the Osler Anemometer.

Gauge No. 2 is a ten-inch circular gauge, placed close to gauge No. 1, its receiving surface being precisely at the same level. The gauge is read daily at 9^h Greenwich civil time. This is also liable to interference, just as No. 1.

Gauges Nos. 3, 4, and 5 are 8-inch circular gauges, placed respectively on the roof of the Octagon Room, over the roof of the Magnetic Observatory, and on the roof of the Photographic Thermometer Shed. All are read daily at 9^h Greenwich civil time.

Gauge No. 6 is an 8-inch circular gauge placed with the receiving surface 5 inches above the ground in the Magnetic Pavilion enclosure, about 10 feet north-west of the thermometer stand, and gauge No. 7, also an 8-inch circular gauge, is similarly placed in the ground south-east of the Magnetic Observatory. No. 8 is a new gauge of the same diameter, but of the modified Snowden pattern adopted by the Meteorological Office, having its receiving surface 1 foot above the ground. It was brought into use 1908 January 1, being fixed SW by W from No. 6 with a clear space of 6 feet between the rims. No. 6 is the Standard gauge, Nos. 7 and 8 are used as checks on the readings of No. 6. No. 6 is read daily, usually at 9^h, 15^h, and 21^h Greenwich civil time, and Nos. 7 and 8 at 9^h only as a rule.

The height of the Standard gauge above mean sea-level was determined by

Mr. H. A. H. Christie on 1908 February 26, and was found to be 5 feet 9 inches less than in its old position in the Observatory Grounds, before removal to the Pavilion Enclosure.

The gauges are also read at midnight on the last day of each calendar month.

ELECTROMETER.—The electric potential of the atmosphere is measured by means of a Thomson self-recording quadrant electrometer, made by White, of Glasgow. It is situated in the Upper Magnet Room, in connection with Lord Kelvin's water-dropping apparatus, and with the usual arrangements for photographic registration. The time scale is the same as for the magnetic registers, the hourly break of trace being made by the driving-clock itself.

SUNSHINE RECORDER.—The Campbell-Stokes instrument, which has been in use since 1887, records the duration of bright sunshine by the length of blackened trace produced by the concentration of the sun's rays on a card. A spherical glass globe brings the rays to a focus. The recording cards are supported by carriers no larger than is required for keeping them in proper position; one straight card serves for the equinoctial periods of the year, and another, curved, for the solstitial periods, the only difference between the summer and winter cards being that the summer cards are the longer: grooves are provided so that the cards are placed in position with great readiness. The daily record is transferred to a sheet of paper specially ruled with equal vertical spaces to represent hours, each sheet containing the record for one calendar month. The daily sums, and sums for each hour (reckoning from *apparent* midnight) through the month, are thus readily formed. The recorded durations are to be understood as indicating the amount of *bright* sunshine, no register being obtained when the sun shines faintly through fog or cloud, or when the sun is very near the horizon. Until 1896 February 5 the instrument was placed on a table upon the platform above the Magnetic Observatory, about 21 feet above the ground, and 176 feet above mean sea level. On account of the extension of the buildings in the south ground, it was found necessary on 1896 February 6 to remove the sunshine recorder from the roof of the Magnetic Observatory to a commanding position on the stage carrying the Robinson anemometer, on the roof of the Octagon Room, about 50 feet above the ground. A clear view of the sun is obtained in this position from sunrise to sunset, but some inconvenience is caused by the smoke from neighbouring chimneys. Very little record is obtained near to sunrise at any part of the year.

It was pointed out by Mr. Marriott, Secretary of the Royal Meteorological Society, towards the end of 1896, that the record by the Campbell-Stokes instrument exhibited a notable falling off. This, though not very marked till 1896, had certainly begun in

1894, and it was found to be due to opacity in the glass globe, which appears to have deteriorated. On 1897 January 1 a globe of clearer glass, presented to the Royal Observatory in 1881 by the late Mr. Campbell, was substituted for the defective globe.

The deterioration of the old ball is fully discussed by Mr. Curtis in the *Quarterly Journal of the Royal Meteorological Society*, vol. xxiv.

OZONOMETER.—This apparatus was fixed on the roof of the Photographic Thermometer shed, at a height of about 10 feet from the ground. The box in which the papers were formerly exposed is of wood: it is about 8 inches square, blackened inside, and so constructed that there is free circulation of air through the box, without exposure of the paper to light. Since 1901 the papers have been exposed in the Stevenson's screen in the Magnetic Pavilion Enclosure, in order to be at a greater distance from the main buildings, the use of the old Ozonometer box being temporarily discontinued, as a comparison had shown that more ozone was indicated in the new position. On 1906 October 22, the Ozonometer box was removed and placed on the top of the Stevenson's screen in the Magnetic Pavilion Enclosure, and Ozone papers subsequently exposed for purposes of comparison, both in the box and in the screen. The papers exposed at 9^h, 15^h, and 21^h are collected respectively at 15^h, 21^h, and 9^h, and the degree of tint produced is compared with a scale of graduated tints, numbered from 0 to 10. The value of ozone for the civil day is determined by taking the degree of tint obtained at each hour of collection as proportional to the period of exposure. Thus, to form the value for any given civil day, three-fourths of the value registered at 9^h, the values registered at 15^h and 21^h, and one-fourth of that registered at the following 9^h, are added together, the resulting sum (which appears in the tables of "Daily Results of the Meteorological Observations") being taken as the value referring to the civil day on a scale of 0 to 30. The means of the 9^h, 15^h, and 21^h values, as observed, are also given for each month in the footnotes.

§ 7. *Meteorological Reductions.*

The results given in the Meteorological Section refer to the civil day, commencing at midnight.

All results in regard to atmospheric pressure, temperature of the air and of evaporation with deductions therefrom, and atmospheric electricity, are derived from the photographic records, excepting that the maximum and minimum values of air temperature are those given by eye observation of the ordinary maximum and minimum thermometers at 9^h, 15^h, and 21^h (civil reckoning), reference being made, however, to the photographic register when necessary to obtain the values

corresponding to the civil day from midnight to midnight. The hourly readings of the photographic traces for the elements mentioned are entered into a form having double argument, the horizontal argument ranging through the 24 hours of the civil day (0^h to 23^h), and the vertical argument through the days of a calendar month. Then for all the photographic elements, the means of the numbers standing in the vertical columns of the monthly forms, into which the values are entered, give the mean monthly photographic values for each hour of the day, the means of the numbers in the horizontal columns giving the mean daily value. It should be mentioned that before measuring out the electrometer ordinates, a pencil line was first drawn through the trace to represent the general form of the curve, in the way described for the magnetic registers (page E xiv), excepting that no day has been omitted on account of unusual electrical disturbance, as it has been found difficult to decide on any limit of disturbance beyond which it would seem proper, as regards determination of diurnal inequality, to reject the results. In measuring the electrometer ordinates a scale of inches is used, and the values given in the tables which follow are expressed in thousandths of an inch, positive and negative potential being denoted by positive and negative numbers respectively. The scale has not been determined in terms of any electrical unit.

To correct the photographic indications of barometer and dry and wet bulb thermometers for small instrumental error, the means of the photographic readings at 9^h , 12^h (noon), 15^h , and 21^h in each month are compared with the corresponding corrected mean readings of the standard barometer and standard dry and wet bulb thermometers, as given by eye observation. A correction applicable to the photographic reading at each of these hours is thus obtained, and, by interpolation, corrections for the intermediate hours are found. The mean of the twenty-four hourly corrections in each month is adopted as the correction applicable to each mean daily value in the month. Thus mean hourly and mean daily values of the several elements are obtained for each month. The process of correction is equivalent to giving photographic indications in terms of corrected standard barometer, and in terms of the standard dry and wet bulb thermometers exposed on the free stand. The barometer results are *not* reduced to sea level, neither are they corrected for the effect of gravity, by reduction to the latitude of 45° .

The mean daily temperature of the dew-point and degree of humidity are deduced from the mean daily temperatures of the air and of evaporation by use of Glaisher's *Hygrometrical Tables*. The factors by which the dew-point given in these tables is calculated were found by Mr. Glaisher from the comparison of a great number of dew-point determinations obtained by use of Daniell's hygrometer, with simultaneous observations of dry and wet bulb thermometers, combining observations made at the

E xxxiv INTRODUCTION TO GREENWICH METEOROLOGICAL OBSERVATIONS, 1910.

Royal Observatory, Greenwich, with others made in India and at Toronto. The factors are given in the following table.

TABLE OF FACTORS by which the DIFFERENCE between the READINGS of the DRY-BULB and WET-BULB THERMOMETERS is to be MULTIPLIED in order to PRODUCE the CORRESPONDING DIFFERENCE between the DRY-BULB TEMPERATURE and that of the DEW-POINT.

Reading of Dry-bulb Thermometer.	Factor.	Reading of Dry-bulb Thermometer.	Factor.	Reading of Dry-bulb Thermometer.	Factor.	Reading of Dry-bulb Thermometer.	Factor.
10	8.78	33	3.01	56	1.94	79	1.69
11	8.78	34	2.77	57	1.92	80	1.68
12	8.78	35	2.60	58	1.90	81	1.68
13	8.77	36	2.50	59	1.89	82	1.67
14	8.76	37	2.42	60	1.88	83	1.67
15	8.75	38	2.36	61	1.87	84	1.66
16	8.70	39	2.32	62	1.86	85	1.65
17	8.62	40	2.29	63	1.85	86	1.65
18	8.50	41	2.26	64	1.83	87	1.64
19	8.34	42	2.23	65	1.82	88	1.64
20	8.14	43	2.20	66	1.81	89	1.63
21	7.88	44	2.18	67	1.80	90	1.63
22	7.60	45	2.16	68	1.79	91	1.62
23	7.28	46	2.14	69	1.78	92	1.62
24	6.92	47	2.12	70	1.77	93	1.61
25	6.53	48	2.10	71	1.76	94	1.60
26	6.08	49	2.08	72	1.75	95	1.60
27	5.61	50	2.06	73	1.74	96	1.59
28	5.12	51	2.04	74	1.73	97	1.59
29	4.63	52	2.02	75	1.72	98	1.58
30	4.15	53	2.00	76	1.71	99	1.58
31	3.70	54	1.98	77	1.70	100	1.57
32	3.32	55	1.96	78	1.69		

In the same way the mean hourly values of the dew-point temperature and degree of humidity in each month (pages E 65 and E 66) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pages E 64 and E 65).

The excess of the mean temperature of the air on each day above the average of 65 years, given in the "Daily Results of the Meteorological Observations," is found by comparing the numbers contained in column 6 with a table of average daily temperatures found by smoothing the accidental irregularities of the daily means deduced from the observations for the sixty-five years 1841-1905. In this series the mean daily temperature from 1841 to 1847 depends usually on 12 observations daily, in 1848 on

METEOROLOGICAL RESULTS.

E xxxv

6 observations daily, and from 1849 to 1905 on 24 hourly readings from the photographic record. The smoothed numbers are given in the following table.

ADOPTED VALUES of MEAN TEMPERATURE of the AIR, deduced from the OBSERVATIONS for the Sixty-five Years 1841-1905.

Day of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	38.6	39.6	40.4	45.3	49.3	57.4	61.5	62.2	59.8	54.1	47.0	40.9
2	38.4	39.5	40.4	45.7	49.5	57.8	61.6	62.1	59.7	53.7	46.8	40.9
3	38.3	39.5	40.5	46.0	49.8	58.1	61.8	62.1	59.6	53.3	46.6	41.1
4	38.3	39.5	40.7	46.2	50.0	58.3	62.1	62.1	59.5	53.0	46.4	41.3
5	38.2	39.6	40.9	46.3	50.3	58.4	62.3	62.1	59.4	52.8	46.1	41.5
6	38.1	39.6	41.0	46.3	50.5	58.3	62.4	62.2	59.2	52.5	45.8	41.5
7	38.0	39.5	41.0	46.3	50.7	58.2	62.4	62.2	59.0	52.3	45.4	41.3
8	37.9	39.3	41.1	46.1	51.0	58.1	62.4	62.3	58.8	52.0	45.0	41.0
9	37.9	39.1	41.0	46.0	51.2	58.0	62.4	62.3	58.6	51.6	44.6	40.6
10	37.9	38.9	40.9	45.9	51.5	58.1	62.5	62.3	58.4	51.3	44.3	40.4
11	37.9	38.8	41.0	45.8	51.8	58.2	62.7	62.4	58.1	50.9	44.0	40.2
12	37.9	38.8	41.1	45.9	52.1	58.4	62.9	62.5	58.0	50.6	43.7	40.3
13	38.0	39.0	41.3	46.1	52.4	58.5	63.1	62.5	57.8	50.3	43.5	40.5
14	38.0	39.3	41.5	46.4	52.6	58.7	63.3	62.5	57.7	50.1	43.3	40.7
15	38.1	39.4	41.7	46.8	52.8	58.8	63.4	62.4	57.6	49.9	43.1	40.8
16	38.3	39.5	41.9	47.2	53.0	58.9	63.4	62.3	57.5	49.8	42.8	40.7
17	38.5	39.6	42.0	47.6	53.1	59.0	63.4	62.1	57.2	49.6	42.6	40.4
18	38.6	39.5	42.0	48.0	53.3	59.2	63.3	61.9	56.9	49.3	42.4	40.0
19	38.7	39.5	41.9	48.3	53.5	59.5	63.2	61.7	56.5	49.1	42.3	39.5
20	38.8	39.5	41.9	48.5	53.8	59.9	63.2	61.5	56.2	48.8	42.2	39.0
21	38.8	39.6	41.9	48.7	54.2	60.3	63.2	61.3	55.9	48.6	42.1	38.7
22	38.8	39.7	42.0	48.7	54.6	60.6	63.1	61.1	55.6	48.3	42.1	38.4
23	38.9	39.8	42.2	48.6	54.9	60.9	63.0	60.9	55.4	48.1	42.0	38.2
24	38.9	40.0	42.4	48.6	55.3	61.2	62.9	60.8	55.3	47.9	42.0	38.2
25	39.1	40.1	42.7	48.6	55.5	61.4	62.7	60.7	55.2	47.7	41.9	38.4
26	39.3	40.2	43.0	48.6	55.8	61.5	62.5	60.7	55.2	47.6	41.8	38.6
27	39.5	40.3	43.3	48.7	56.0	61.6	62.4	60.6	55.1	47.5	41.7	38.8
28	39.6	40.3	43.7	48.8	56.2	61.6	62.3	60.4	54.9	47.4	41.5	38.9
29	39.7		44.1	49.0	56.4	61.6	62.3	60.3	54.7	47.3	41.2	39.0
30	39.7		44.5	49.1	56.7	61.5	62.3	60.1	54.4	47.2	41.0	38.9
31	39.7		44.9		57.1		62.2	59.9		47.1		38.7
Means	38.6	39.5	41.9	47.3	53.1	59.4	62.7	61.6	57.2	50.0	43.5	39.9

The mean of the twelve monthly values is 49°.6.

The daily register of rain contained in column 16 is that recorded by the gauge No. 6, whose receiving surface is 5 inches above the ground. This gauge is usually read at 9^h, 15^h, and 21^h Greenwich civil time. The continuous record of Osler's self-

registering gauge shows whether the amounts measured at 9^h are to be placed to the same, or to the preceding civil day; and in cases in which rain fell both before and after midnight, also gives the means of ascertaining the proper proportion of the 9^h amount which should be placed to each civil day. The number of days of rain given in the footnotes, and in the abstract tables, pages E 63 and E 70, is formed from the records of this gauge. In this numeration only those days are counted on which the fall amounted to or exceeded 0ⁱⁿ.005.

The indications of atmospheric electricity are derived from Thomson's Electrometer. Occasionally, during interruption of photographic registration, the results depend on eye observations.

No particular explanation of the anemometric results seems necessary. It may be understood generally that the greatest pressures usually occur in gusts of short duration. The "Mean of 24 Hourly Measures" was in former years the mean of 24 measures of pressure taken *at* each hour, but commencing with 1887 January 1, it is the mean of measures, each one of which is the average pressure during the hour of which the nominal hour is the middle point.

The mean amount of cloud given in the footnotes on the right-hand pages E 39 to E 61, and in the abstract table, page E 63, is the mean found from observations made usually at 9^h, 12^h (noon), 15^h, and 21^h of each civil day.

For understanding the divisions of time under the headings, "Clouds and Weather" and "Electricity," the following remarks are necessary:—In regard to Clouds and Weather, the day is divided by columns into two parts (from midnight to noon, and from noon to midnight), and each of these parts is subdivided into two or three parts by colons (:). Thus, when there is a single colon in the first column, it denotes that the indications before it apply (roughly) to the interval from midnight to 6^h, and those following it to the interval from 6^h to noon. When there are two colons in the first column, it is to be understood that the twelve hours are divided into three nearly equal parts of four hours each. And similarly for the second column. In regard to Electricity, the results are included in one column; in this case the colons divide the whole period of 24 hours (midnight to midnight).

The notation employed for Clouds and Weather is as follows, it being understood that for clouds Howard's Nomenclature is used. The figure denotes the proportion of sky covered by cloud, an overcast sky being represented by 10.

a	denotes <i>aurora borealis</i>	oc-m-r	denotes <i>occasional misty rain</i>
ci	... <i>cirrus</i>	oc-r	... <i>occasional rain</i>
ci-cu	... <i>cirro-cumulus</i>	sh-r	... <i>shower of rain</i>
ci-s	... <i>cirro-stratus</i>	shs-r	... <i>showers of rain</i>
cu	... <i>cumulus</i>	slt-r	... <i>slight rain</i>
cu-s	... <i>cumulo-stratus</i>	oc-slt-r	... <i>occasional slight rain</i>
d	... <i>dew</i>	th-r	... <i>thin rain</i>
hy-d	... <i>heavy dew</i>	fq-th-r	... <i>frequent thin rain</i>
f	... <i>fog</i>	oc-th-r	... <i>occasional thin rain</i>
slt-f	... <i>slight fog</i>	hy-sh	... <i>heavy shower</i>
tk-f	... <i>thick fog</i>	slt-sh	... <i>slight shower</i>
fr	... <i>frost</i>	fq-shs	... <i>frequent showers</i>
ho-fr	... <i>hoar frost</i>	hy-shs	... <i>heavy showers</i>
g	... <i>gale</i>	fq-hy-shs	... <i>frequent heavy showers</i>
hy-g	... <i>heavy gale</i>	oc-hy-shs	... <i>occasional heavy showers</i>
glm	... <i>gloom</i>	li-shs	... <i>light showers</i>
gt-glm	... <i>great gloom</i>	oc-shs	... <i>occasional showers</i>
h	... <i>haze</i>	s	... <i>stratus</i>
slt-h	... <i>slight haze</i>	sc	... <i>scud</i>
hl	... <i>hail</i>	li-sc	... <i>light scud</i>
l	... <i>lightning</i>	sl	... <i>sleet</i>
li-cl	... <i>light clouds</i>	sn	... <i>snow</i>
lu-co	... <i>lunar corona</i>	oc-sn	... <i>occasional snow</i>
lu-ha	... <i>lunar halo</i>	slt-sn	... <i>slight snow</i>
m	... <i>mist</i>	so-ha	... <i>solar halo</i>
slt-m	... <i>slight mist</i>	sq	... <i>squall</i>
n	... <i>nimbus</i>	sqs	... <i>squalls</i>
p-cl	... <i>partially cloudy</i>	fq-sqs	... <i>frequent squalls</i>
prh	... <i>parhelion</i>	hy-sqs	... <i>heavy squalls</i>
prs	... <i>paraselene</i>	fq-hy-sqs	... <i>frequent heavy squalls</i>
r	... <i>rain</i>	oc-sqs	... <i>occasional squalls</i>
c-r	... <i>continued rain</i>	t	... <i>thunder</i>
fr-r	... <i>frozen rain</i>	t-sm	... <i>thunder storm</i>
fq-r	... <i>frequent rain</i>	th-cl	... <i>thin clouds</i>
hy-r	... <i>heavy rain</i>	v	... <i>variable</i>
c-hy-r	... <i>continued heavy rain</i>	vv	... <i>very variable</i>
m-r	... <i>misty rain</i>	w	... <i>wind</i>
fq-m-r	... <i>frequent misty rain</i>	st-w	... <i>strong wind</i>

The following is the notation employed for Electricity:—

N denotes <i>negative</i>	w denotes <i>weak</i>
P ... <i>positive</i>	s ... <i>strong</i>
m ... <i>moderate</i>	v ... <i>variable</i>

The duplication of the letter denotes intensity of the modification described—thus, ss is very strong; vv, very variable. 0 indicates zero potential, and a dash, “—,” accidental failure of the apparatus.

The remaining columns in the tables of “Daily Results” seem to require no special remark; all necessary explanation regarding the results therein contained will be found in the notes at the foot of the left-hand page, or in the descriptions of the several instruments given in § 6.

In regard to the comparisons of the extremes and means, &c. of meteorological elements with average values, contained in the footnotes, it may be mentioned that comparison is in all cases made with mean values determined from the observations for the sixty-five years 1841–1905.

The tables following the “Daily Results” require no lengthened explanation. They consist of tables giving the highest and lowest readings of the barometer through the year; monthly abstracts of the principal meteorological elements; hourly values in each month of barometer-reading, of temperature of air, evaporation, and dew-point, and of degree of humidity; sunshine results; regular observations of thermometers in the Magnetic Pavilion Enclosure with comparison between those in the open stand and the Stevenson screen; rain results; readings of the earth thermometers; changes of direction of the wind; hourly values in each month of the horizontal movement of the air derived from Robinson’s Anemometer; results derived from the Thomson Electrometer; and observations of parhelia, paraselenæ, and meteors.

In the tables of mean values of meteorological elements at each hour for the different months of the year, the mean values have, in previous years, been given for the hours 0^h to 23^h only. But since 1886 the mean for the 24th hour (the following midnight) has been added, thus indicating the amount of non-periodic variation. The monthly means have also been given since 1886 for the 24 hours, 1^h to 24^h, as well as for the hours, 0^h (midnight) to 23^h, which were given in former years.

It may be pointed out that the monthly means, 0^h to 23^h, for barometer and temperature of the air and of evaporation contained in these tables, pages E 64 and E 65, do not in some cases agree with the monthly means given in the daily results

pages E 38 to E 60, and in the table on page E 63, in consequence of occasional interruption of the photographic register, at which times daily values to complete the daily results could be supplied from the eye observations, as mentioned in the footnotes; but hourly values, for the diurnal inequality tables, could not be so supplied. In such cases, however, the means given with these tables are the proper means to be used in connexion with the numbers standing immediately above them, for formation of the actual diurnal inequality.

The table, "Abstract of the Changes of the Direction of the Wind," as derived from Osler's Anemometer, page E 76, exhibits every change of direction of the wind occurring throughout the year, whenever such change amounted to two nautical points or $22\frac{1}{2}^{\circ}$. It is to be understood that the change from one direction to another during the interval between the times mentioned in each line of the table was generally gradual. All complete turnings of the vane which were evidently of accidental nature, and which in the year 1881 and in previous years had been included, are here omitted. Between any time given in the second column and that next following in the first column, no change of direction in general occurred varying from that given by so much as one point or $11\frac{1}{4}^{\circ}$. From the numbers given in this table the monthly and yearly excess of motion, page E 82, is formed. By direct motion it is to be understood that the change of direction occurred in the order N, E, S, W, N, &c., and by retrograde motion that the change occurred in the order N, W, S, E, N, &c.

In regard to Electric Potential of the Atmosphere, in addition to giving the hourly values in each month, including all available days, the days in each month have been (since the year 1882) further divided into two groups, one containing all days on which the rainfall amounted to or exceeded $0^{\text{in}}.020$, the other including only days on which no rainfall was recorded, the values of daily rainfall given in column 16 of the "Daily Results of the Meteorological Observations" being adopted in selecting the days. These additional tables are given on pages E 86 and E 87 respectively.

In regard to the observations of Luminous Meteors, it is simply necessary to say that, in general, only special meteor showers are watched for, such as those of April, August, and November. The observers of meteors in the year 1910 were Mr. Edney, Mr. Loomes and Mr. Timbury. Their observations are distinguished by the initials E., L. and T. respectively.

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ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL OBSERVATIONS

(EXCLUDING DAYS OF GREAT MAGNETIC DISTURBANCE),

1910.

TABLE I.—MEAN MAGNETIC DECLINATION WEST FOR EACH CIVIL DAY.
(Each result is the mean of 24 hourly ordinates from the photographic register.)

1910.												
Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°
d												
1	44.9	44.6	43.2	44.5	41.8	41.1	41.7	41.8	40.1	37.1	38.8	38.1
2	46.5	44.8	44.0	43.2	41.6	40.0	40.9	41.9	39.3	38.5	39.1	37.5
3	46.5	44.7	44.4	44.2	40.7	40.7	41.2	41.6	39.8	39.4	39.1	36.8
4	46.0	44.0	43.5	43.8	42.2	40.5	41.2	42.5	40.1	38.1	39.2	37.5
5	46.0	44.1	44.9	43.4	41.4	40.5	42.5	41.8	39.9	37.9	39.0	37.2
6	45.9	43.9	43.7	43.5	41.6	40.8	41.7	41.4	39.6	38.7	38.8	36.7
7	45.8	43.7	43.2	43.3	41.8	40.4	41.4	41.4	40.2	37.9	39.0	37.1
8	46.0	43.8	44.0	42.8	42.4	41.0	40.9	41.1	38.7	37.5	38.0	37.2
9	45.9	44.6	43.7	43.4	41.4	41.5	40.9	41.8	39.5	37.9	38.3	37.4
10	46.2	44.5	43.3	43.2	42.8	41.0	41.0	41.2	39.6	37.6	38.8	37.2
11	45.9	43.8	44.5	43.1	41.7	40.9	40.3	40.6	39.3	37.7	38.6	37.5
12	...	44.0	44.0	42.6	41.6	40.1	40.4	41.2	39.2	38.1	38.8	37.5
13	...	43.5	44.8	42.7	42.0	40.2	40.7	40.7	39.9	37.6	38.6	37.7
14	45.8	44.3	44.0	43.4	41.5	41.9	40.4	41.2	39.3	38.0	38.7	37.4
15	45.5	44.1	45.3	43.3	41.5	42.0	40.3	40.4	39.4	38.6	38.2	38.5
16	45.6	44.3	...	42.3	41.0	42.2	39.9	40.9	39.3	38.6	39.6	36.7
17	46.9	43.4	...	42.7	41.6	42.2	40.2	41.3	39.8	38.5	38.1	37.4
18	45.9	43.4	44.1	44.6	41.1	42.1	39.7	39.9	39.7	38.7	37.8	37.1
19	46.1	43.8	44.0	42.9	40.4	42.4	40.2	41.1	39.7	37.8	38.6	36.9
20	46.2	44.5	44.3	42.5	40.8	40.8	39.7	40.0	39.6	38.8	38.6	37.4
21	45.9	44.3	42.5	42.5	40.6	41.1	40.0	39.7	40.8	38.8	39.0	37.0
22	45.1	43.4	43.9	42.7	40.0	41.8	40.0	41.8	40.1	38.4	38.6	37.1
23	45.0	43.1	43.7	41.7	40.6	42.5	39.8	40.2	39.8	38.2	38.8	37.3
24	45.4	44.0	43.7	42.7	42.1	42.3	39.5	39.8	40.6	38.8	38.7	36.1
25	47.0	45.7	43.8	42.0	40.7	42.3	40.0	40.0	39.2	37.6	38.6	38.2
26	44.5	44.0	43.8	42.1	40.7	42.0	40.1	40.1	39.2	37.3	38.9	37.6
27	45.5	44.0	43.3	44.7	40.7	42.1	40.5	40.2	40.2	37.7	39.2	38.0
28	45.6	43.5	44.1	42.5	40.7	41.7	40.7	40.9	39.9	38.2	39.3	36.7
29	46.0	...	45.1	42.5	39.4	41.1	40.9	38.9	37.1	37.9	39.5	38.0
30	45.5	...	43.3	42.2	40.6	42.8	39.9	41.0	40.2	38.3	39.0	36.7
31	45.9	...	43.3	...	40.7	...	40.2	39.5	...	38.7	...	36.4

TABLE II.—MONTHLY MEAN DIURNAL INEQUALITY OF MAGNETIC DECLINATION WEST.
(The results in each month are diminished by the smallest hourly value.)

1910.												
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Midn.	0.5	0.4	0.1	2.2	1.7	3.8	3.2	1.6	0.7	1.2	1.1	1.0
1 ^h	0.9	0.9	0.0	2.3	2.0	3.6	3.3	1.5	0.9	1.8	1.6	1.7
2	1.2	1.4	0.0	2.4	2.4	3.5	3.0	1.6	1.0	2.1	2.2	2.4
3	1.6	1.6	0.2	2.2	2.3	3.3	2.8	1.8	0.8	2.2	2.5	2.7
4	1.6	1.4	0.4	2.1	2.0	2.3	2.4	1.6	0.7	2.5	2.7	2.7
5	1.7	1.3	0.7	2.4	1.3	1.0	1.2	0.7	0.4	2.7	2.7	2.7
6	1.6	1.3	1.3	2.1	0.5	0.1	0.4	0.4	0.5	2.9	2.5	2.9
7	1.6	1.4	1.1	1.0	0.0	0.0	0.0	0.0	0.2	2.6	2.3	2.9
8	1.3	1.2	0.5	0.0	0.3	0.3	0.0	0.2	0.0	1.7	1.8	2.7
9	0.9	1.4	0.7	0.4	1.3	1.6	1.0	1.0	1.0	1.6	1.7	2.7
10	2.0	2.3	2.4	2.1	3.0	3.7	2.7	3.1	3.1	2.9	2.7	3.2
11	3.5	3.9	4.8	4.8	5.3	6.3	4.9	5.5	5.6	5.3	4.5	4.0
Noon.	4.6	4.8	7.1	7.4	7.2	8.3	6.9	7.7	7.2	7.1	5.8	4.8
13 ^h	5.5	5.5	8.0	9.0	8.2	9.2	8.1	8.9	7.8	7.7	6.2	5.1
14	5.3	5.5	7.5	8.9	8.2	9.2	8.4	8.8	6.9	7.3	5.5	4.7
15	4.3	4.4	6.1	7.5	7.2	8.3	7.6	7.2	5.1	6.0	4.4	4.0
16	3.5	3.5	4.6	5.7	6.1	7.5	6.4	5.5	3.1	4.4	3.5	3.5
17	3.1	2.9	3.5	4.0	5.1	6.4	5.2	3.8	1.8	3.2	2.7	2.9
18	2.7	2.2	2.9	3.3	4.2	5.4	4.4	2.7	1.1	1.8	2.1	2.4
19	2.2	1.7	1.9	3.0	3.3	4.5	3.9	1.9	0.7	0.7	1.4	1.7
20	1.1	1.5	1.0	2.6	2.8	3.8	3.7	1.7	0.9	0.2	1.1	0.8
21	0.3	1.1	0.4	2.3	2.7	3.7	3.5	1.9	1.0	0.1	0.4	0.2
22	0.0	0.2	0.1	2.1	2.6	3.7	3.3	2.0	0.4	0.0	0.0	0.0
23	0.2	0.0	0.1	2.0	2.2	3.8	3.1	1.9	0.4	0.4	0.3	0.3
Means.	2.13	2.16	2.31	3.41	3.41	4.30	3.73	3.04	2.14	2.85	2.57	2.58

TABLE III.—MEAN HORIZONTAL MAGNETIC FORCE (diminished by a Constant) FOR EACH CIVIL DAY.

(Each result is the mean of 24 hourly ordinates from the photographic register, expressed in terms of the whole Horizontal Force, the unit in the table being '00001 of the whole Horizontal Force. The letters u and c indicate respectively values uncorrected for, and corrected for temperature.)

1910.																								
Day of Month.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c
d																								
1	...	...	...	...	528	081	322	870	422	002	517	092	536	116	638	208	555	166	528	124	427	995	125	705
2	...	...	607	137	530	081	339	897	444	038	543	123	570	142	593	173	516	110	502	118	351	907	101	685
3	...	...	605	138	504	079	349	921	392	993	577	140	589	157	545	117	542	131	523	086	352	898	097	689
4	...	...	583	125	530	093	368	945	445	020	544	119	573	148	588	156	561	138	447	003	341	897	105	704
5	...	...	575	112	522	085	425	983	435	995	595	165	557	146	592	169	555	118	545	117	316	860	157	770
6	...	...	635	222	516	105	436	001	425	005	604	193	564	122	589	190	560	120	473	062	295	870	182	776
7	...	...	692	260	490	079	459	043	417	985	651	252	513	081	641	225	567	123	467	049	340	898	167	751
8	797	357	643	208	521	110	459	029	414	977	750	346	503	083	655	254	562	154	508	092	305	863	174	770
9	842	422	630	178	581	175	427	009	422	997	669	270	571	151	692	279	608	161	522	102	282	826	174	782
10	862	434	627	164	589	157	452	041	457	029	670	266	551	135	581	156	592	140	570	147	246	792	199	815
11	842	402	646	192	559	131	525	109	432	019	680	310	581	158	616	184	572	152	584	164	339	851	215	807
12	843	382	645	187	561	129	580	174	459	043	766	370	598	185	617	197	535	115	586	161	174	744	267	835
13	...	...	648	220	582	140	625	202	478	055	709	296	583	184	660	244	538	120	494	083	184	807	254	824
14	832	385	659	234	557	105	598	175	410	028	560	128	645	227	716	298	539	107	504	072	245	846	238	803
15	838	403	660	218	573	117	571	153	522	094	566	136	675	235	652	251	548	135	486	054	244	814	250	827
16	852	436	612	149	...	...	545	125	547	112	592	164	636	208	642	236	586	168	515	099	204	734	174	768
17	788	344	611	198	...	...	542	112	602	167	594	174	636	216	664	251	567	144	550	139	116	649	185	750
18	745	296	605	165	544	100	335	929	564	158	629	197	665	242	674	254	552	146	592	164	069	611	163	745
19	720	280	615	192	527	083	477	073	510	109	658	240	684	249	625	217	580	152	456	048	020	578	186	761
20	757	290	603	183	416	969	575	147	608	195	605	204	693	253	667	256	560	113	421	989	038	582	089	673
21	758	293	591	144	429	001	588	160	645	234	535	148	665	261	651	240	470	016	408	990	116	646	143	730
22	717	215	553	118	496	056	589	159	624	201	506	100	664	244	451	028	469	034	405	001	094	627	089	690
23	663	196	575	131	510	066	424	982	602	203	540	115	651	226	554	148	472	035	443	018	120	639	089	654
24	573	157	559	131	500	075	404	981	563	138	528	108	591	171	577	164	455	047	399	981	111	659	152	732
25	568	098	520	080	505	073	442	014	455	006	536	111	605	189	600	177	488	080	399	983	091	680	010	599
26	630	130	545	093	514	082	433	017	433	041	548	101	557	129	649	241	527	097	450	037	088	651	018	590
27	630	126	541	087	514	070	302	874	526	094	528	098	545	137	620	190	497	098	402	989	101	681	047	589
28	620	185	540	091	160	730	337	929	539	114	547	139	607	208	623	183	554	134	456	038	083	687	002	523
29	688	227			324	894	345	917	538	127	550	139	599	193	587	150	475	081	432	026	983	546	954	519
30	720	227			423	969	393	965	530	095	515	090	599	176	613	185	494	062	433	015	041	616	...	...
31	...	...			319	863			482	052			605	185	592	169			407	977			...	...

At the end of January, and again at the end of the year, experiments were made for determination of the angle of torsion, thus breaking the continuity of the values.

TABLE IV.—MEAN TEMPERATURE for each CIVIL DAY within the box inclosing the HORIZONTAL FORCE MAGNET.

1910.												
Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	65°8	65°6	66°9	66°7	66°9	66°5	68°2	67°6	66°4	66°9
1	...	...	65°8	65°6	66°9	66°7	66°9	66°5	68°2	67°6	66°4	66°9
2	...	64°8	65°7	66°0	67°5	66°9	66°6	66°9	67°5	68°4	65°9	67°1
3	...	64°9	66°7	66°6	67°8	66°2	66°4	66°6	67°3	66°2	65°5	67°4
4	...	65°3	66°2	66°8	66°7	66°7	66°7	66°4	66°8	65°9	65°9	67°7
5	...	65°1	66°2	66°0	66°1	66°5	67°3	66°8	66°2	66°6	65°4	68°3
6	...	67°2	67°3	66°3	66°9	67°3	66°0	67°8	66°1	67°3	66°7	67°5
7	...	66°4	67°3	67°1	66°4	67°8	66°4	67°1	65°9	67°0	66°0	67°1
8	66°1	66°3	67°3	66°5	66°2	67°6	66°9	67°7	67°4	67°1	66°0	67°6
9	66°9	65°6	67°5	67°0	66°7	67°8	66°9	67°2	65°8	66°9	65°4	68°1
10	66°6	65°1	66°4	67°3	66°6	67°6	67°1	66°7	65°6	66°8	65°5	68°4
11	66°1	65°5	66°6	67°1	67°2	69°0	66°8	66°4	66°9	66°9	64°0	67°4
12	65°2	65°3	66°4	67°5	67°1	67°9	67°2	66°9	66°9	66°7	66°5	66°4
13	...	66°6	66°0	66°8	66°8	67°2	67°8	67°1	67°0	67°3	68°7	66°5
14	65°8	66°7	65°6	66°8	68°5	66°4	67°0	67°0	66°4	66°4	67°8	66°3
15	66°3	66°0	65°4	67°0	66°6	66°5	66°1	67°7	67°2	66°4	66°5	66°8
16	67°1	65°1	...	66°9	66°3	66°6	66°6	67°5	67°0	67°1	64°8	67°5
17	65°9	67°2	...	66°5	66°3	66°9	66°9	67°2	66°8	67°3	64°9	66°3
18	65°7	66°1	65°9	67°5	67°5	66°4	66°8	66°9	67°5	66°6	65°3	67°0
19	66°1	66°8	65°9	67°6	67°7	67°0	66°3	67°4	66°6	67°4	66°0	66°7
20	64°9	66°9	65°8	66°6	67°2	67°7	66°1	67°3	65°8	66°4	65°4	67°1
21	65°0	65°8	66°6	66°6	67°3	68°3	67°6	67°3	65°5	67°0	64°8	67°2
22	63°4	66°3	66°1	66°5	66°8	67°5	66°9	66°8	66°3	67°6	64°9	67°8
23	64°9	65°9	65°9	66°0	67°8	66°7	66°7	67°5	66°2	66°7	64°3	66°3
24	67°1	66°6	66°7	66°8	66°7	66°9	66°9	67°2	67°4	67°0	65°6	66°9
25	64°8	66°1	66°4	66°6	65°7	66°7	67°1	66°8	67°4	67°1	67°3	67°3
26	63°5	65°6	66°4	67°1	68°1	65°8	66°6	67°4	66°5	67°2	66°2	66°6
27	63°3	65°5	65°9	66°6	66°4	66°5	67°4	66°5	67°8	67°2	66°9	65°3
28	66°3	65°7	66°5	67°4	66°7	67°4	67°8	66°1	66°9	67°0	67°9	64°4
29	65°2		66°5	66°6	67°3	67°3	67°5	66°2	68°0	67°5	66°2	66°3
30	63°8		65°5	66°6	66°3	66°7	66°8	66°6	66°4	67°0	66°7	...
31	...		65°4		66°5		66°9	66°8		66°5		...
Means.	65°45	65°94	66°27	66°74	66°92	67°08	66°87	66°98	66°78	66°97	65°98	66°97

TABLE V.—MONTHLY MEAN DIURNAL INEQUALITY OF HORIZONTAL MAGNETIC FORCE.

(The results are expressed in terms of the whole Horizontal Force, diminished in each case by the smallest hourly value, the unit in the table being 00001 of the whole Horizontal Force. The letters u and c indicate respectively values uncorrected for, and corrected for temperature.)

1910.																								
Hour, Greenwich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c
Midn.	59	73	52	64	111	133	202	221	139	158	172	189	160	172	209	221	170	184	169	181	82	102	54	59
1 ^h	68	79	50	62	116	135	191	208	130	146	169	183	154	164	195	204	169	181	167	176	92	109	53	56
2	73	82	52	62	115	132	181	196	122	136	163	175	150	160	177	186	161	173	167	174	96	108	47	47
3	81	88	57	65	111	123	180	192	116	128	161	173	144	152	175	182	157	166	170	177	107	115	49	47
4	92	97	70	75	122	132	181	188	111	120	162	171	136	144	178	183	156	163	176	181	114	119	65	61
5	111	116	83	86	126	131	176	181	112	119	158	165	141	146	175	177	150	157	186	188	124	127	87	80
6	123	125	89	89	120	123	160	163	102	106	129	134	120	123	151	153	132	136	182	184	130	130	99	92
7	116	116	84	84	100	100	147	147	83	85	89	91	96	96	105	105	102	104	161	161	127	127	90	83
8	84	86	59	59	66	66	115	113	50	50	46	46	64	64	66	66	62	64	111	111	95	95	66	62
9	41	41	25	25	32	32	60	55	30	30	11	11	25	25	32	29	24	26	61	58	45	45	42	38
10	7	7	7	7	8	8	18	16	8	8	0	0	1	1	0	0	2	4	27	24	13	13	26	22
11	2	2	0	0	0	0	0	0	0	0	11	11	0	0	7	7	0	0	0	0	0	0	17	10
Noon.	0	0	4	7	21	24	17	20	15	19	40	42	25	28	42	42	43	45	16	16	4	4	16	12
13 ^h	21	26	18	23	49	54	62	69	41	50	83	90	44	49	88	93	76	80	57	62	22	27	13	9
14	44	53	28	38	66	76	89	101	72	86	117	126	70	78	116	123	86	95	77	84	34	44	8	6
15	58	69	22	34	82	94	125	140	102	121	152	161	103	111	139	148	94	106	87	96	23	35	3	3
16	64	78	10	22	74	89	154	169	131	150	180	192	134	142	157	166	102	114	88	97	18	30	0	0
17	62	78	10	25	68	85	183	200	155	176	204	218	158	166	165	177	121	135	88	100	34	49	9	9
18	59	75	23	40	83	102	196	215	167	188	225	239	180	190	183	195	139	153	97	109	43	60	13	11
19	53	69	34	51	101	120	198	217	168	189	238	252	183	193	205	217	158	172	118	130	40	57	21	19
20	51	65	35	52	96	118	202	224	153	174	227	241	187	199	212	224	169	183	133	145	45	62	26	22
21	44	58	33	48	100	122	213	235	146	167	201	215	183	195	213	225	171	185	138	150	65	82	32	28
22	38	49	38	53	100	122	211	233	147	166	191	205	172	184	207	219	177	191	158	170	63	80	36	34
23	45	56	45	60	99	121	209	231	144	163	176	190	166	178	214	226	175	187	171	183	60	80	43	43
Means corrected for Temperature.	66.2		47.1		93.4		155.6		114.0		146.7		123.3		148.7		125.2		123.2		70.8		35.5	

TABLE VI.—MONTHLY MEAN TEMPERATURE at each HOUR of the DAY within the box inclosing the HORIZONTAL FORCE MAGNET.

1910.													
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midn.	65.7	66.1	66.7	67.1	67.2	67.4	67.1	67.2	67.0	67.2	66.4	67.3	66.87
1 ^h	65.6	66.1	66.6	67.0	67.1	67.3	67.0	67.1	66.9	67.1	66.3	67.2	66.78
2	65.5	66.0	66.5	66.9	67.0	67.2	67.0	67.1	66.9	67.0	66.1	67.1	66.69
3	65.4	65.9	66.3	66.8	66.9	67.2	66.9	67.0	66.8	67.0	65.9	67.0	66.59
4	65.3	65.8	66.2	66.6	66.8	67.1	66.9	66.9	66.7	66.9	65.8	66.9	66.49
5	65.3	65.7	66.0	66.5	66.7	67.0	66.8	66.8	66.7	66.8	65.7	66.8	66.40
6	65.2	65.6	65.9	66.4	66.6	66.9	66.7	66.8	66.6	66.8	65.6	66.8	66.32
7	65.1	65.6	65.8	66.3	66.5	66.8	66.6	66.7	66.5	66.7	65.6	66.8	66.25
8	65.2	65.6	65.8	66.2	66.4	66.7	66.6	66.7	66.5	66.7	65.6	66.9	66.24
9	65.1	65.6	65.8	66.1	66.4	66.7	66.6	66.6	66.5	66.6	65.6	66.9	66.21
10	65.1	65.6	65.8	66.2	66.4	66.7	66.6	66.7	66.5	66.6	65.6	66.9	66.22
11	65.1	65.6	65.8	66.3	66.4	66.7	66.6	66.7	66.4	66.7	65.6	66.8	66.23
Noon.	65.1	65.7	65.9	66.4	66.6	66.8	66.7	66.7	66.5	66.7	65.6	66.9	66.30
13 ^h	65.3	65.8	66.0	66.6	66.8	67.0	66.8	66.9	66.6	66.9	65.8	66.9	66.45
14	65.5	66.0	66.2	66.8	67.0	67.1	66.9	67.0	66.8	67.0	66.0	67.0	66.61
15	65.6	66.1	66.3	66.9	67.2	67.1	66.9	67.1	66.9	67.1	66.1	67.1	66.70
16	65.7	66.1	66.4	66.9	67.2	67.2	66.9	67.1	66.9	67.1	66.1	67.1	66.73
17	65.8	66.2	66.5	67.0	67.3	67.3	66.9	67.2	67.0	67.2	66.2	67.1	66.81
18	65.8	66.3	66.6	67.1	67.3	67.3	67.0	67.2	67.0	67.2	66.3	67.0	66.84
19	65.8	66.3	66.6	67.1	67.3	67.3	67.0	67.2	67.0	67.2	66.3	67.0	66.84
20	65.7	66.3	66.7	67.2	67.3	67.3	67.1	67.2	67.0	67.2	66.3	66.9	66.85
21	65.7	66.2	66.7	67.2	67.3	67.3	67.1	67.2	67.0	67.2	66.3	66.9	66.84
22	65.6	66.2	66.7	67.2	67.3	67.3	67.1	67.2	67.0	67.2	66.3	67.0	66.83
23	65.6	66.2	66.7	67.2	67.2	67.3	67.1	67.2	66.9	67.2	66.4	67.1	66.84

TABLE VII.—MEAN VERTICAL MAGNETIC FORCE (diminished by a Constant) FOR EACH CIVIL DAY.

(Each result is the mean of 24 hourly ordinates from the photographic register, expressed in terms of the whole Vertical Force, the unit in the table being 00001 of the whole Vertical Force. The letters u and c indicate respectively values uncorrected for, and corrected for temperature.)

1910.

Day of Month.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c
d																								
1	693	964	627	879	640	911	644	896	669	929	757	015	823	079	836	107	878	121	815	052	755	017	566	816
2	703	953	620	895	647	905	635	878	687	949	756	999	803	067	833	099	877	124	820	051	753	034	585	824
3	742	981	614	893	674	924	634	890	687	899	745	011	803	061	839	114	865	127	829	110	717	988	576	819
4	738	996	619	856	653	915	648	898	670	936	756	010	808	058	836	113	834	115	802	058	706	962	589	824
5	713	000	615	869	673	927	630	888	652	918	749	009	825	079	836	107	828	103	815	083	688	931	615	841
6	705	986	650	883	696	925	628	886	676	926	763	006	811	084	850	093	830	088	822	082	693	945	610	855
7	709	977	652	933	710	947	632	888	646	927	780	030	819	066	826	097	802	064	835	099	675	956	614	866
8	706	966	645	897	719	966	620	886	639	922	787	041	834	079	828	086	810	072	823	085	665	915	622	867
9	715	962	635	893	704	970	626	884	620	882	800	054	818	063	830	094	794	077	818	086	650	900	638	877
10	727	977	622	888	692	958	642	887	632	884	810	070	808	060	834	107	795	066	798	071	636	904	647	888
11	705	963	629	885	701	953	628	880	645	890	862	076	810	062	854	131	810	064	785	053	626	899	639	893
12	668	932	610	868	694	956	633	883	643	890	845	103	818	074	853	119	808	074	780	057	617	883	620	888
13	643	920	626	863	670	930	634	879	646	910	857	123	830	075	857	119	800	062	771	023	652	874	630	896
14	668	926	639	891	652	914	649	896	688	923	857	117	823	089	859	123	787	043	773	041	656	899	636	898
15	683	939	617	883	634	902	655	913	663	929	850	112	813	096	875	122	798	037	766	026	641	914	649	905
16	698	943	602	870	650	914	667	927	682	919	836	098	818	072	881	139	791	057	763	013	618	922	647	903
17	698	981	652	891	649	903	647	924	690	940	819	069	843	086	869	129	789	064	759	019	604	870	632	884
18	686	952	646	914	634	907	695	938	723	968	805	078	842	096	853	121	800	035	743	016	607	880	623	887
19	693	943	660	918	630	882	711	973	720	982	813	077	835	078	868	126	792	063	768	001	624	876	615	879
20	664	939	678	928	647	907	698	952	725	972	827	072	830	105	870	126	768	039	757	017	605	867	623	860
21	653	913	655	932	649	894	702	975	755	005	881	118	848	091	885	145	754	010	761	006	563	844	630	873
22	608	908	656	908	641	899	701	963	740	990	864	120	857	121	925	198	771	021	761	006	560	843	628	882
23	624	876	648	908	622	890	696	946	762	016	870	132	863	117	897	153	744	017	732	998	540	829	603	867
24	681	907	647	915	633	887	707	950	766	034	864	118	839	078	884	144	771	018	743	993	559	823	612	862
25	675	960	667	931	634	886	676	936	719	985	869	129	854	099	873	146	761	021	753	003	571	823	618	886
26	601	886	651	919	639	884	682	938	791	026	850	129	844	100	876	136	762	020	740	004	560	828	605	869
27	585	860	635	922	636	896	690	948	760	037	846	087	838	077	868	149	795	038	761	027	570	824	564	849
28	644	875	635	897	605	850	699	944	756	012	854	089	839	078	855	138	777	039	722	995	583	826	545	824
29	617	896			690	940	671	939	755	026	845	101	840	096	821	096	823	070	760	010	579	852	571	818
30	582	876			660	933	658	914	758	022	833	108	838	106	857	121	811	084	751	013	567	817	...	...
31	604	839			639	903			754	999			831	097	862	124			749	017			...	...

At the end of the year the magnet was readjusted, thus breaking the continuity of the values.

TABLE VIII.—MEAN TEMPERATURE for each CIVIL DAY within the box inclosing the VERTICAL FORCE MAGNET.

1910.												
Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	66.4	67.3	66.4	67.3	66.9	67.0	67.1	66.4	67.7	68.0	66.8	67.4
2	67.4	66.2	67.0	67.7	66.8	67.7	66.7	66.6	67.5	68.3	65.9	67.9
3	67.9	66.0	67.4	67.1	69.2	66.6	67.0	66.2	66.8	65.9	66.4	67.7
4	67.0	68.0	66.8	67.4	66.6	67.2	67.4	66.1	65.9	67.1	67.1	68.1
5	65.6	67.2	67.2	67.0	66.6	66.9	67.2	66.4	66.2	66.5	67.7	68.5
6	65.9	68.2	68.4	67.0	67.4	67.7	66.3	67.7	67.0	66.9	67.3	67.6
7	66.5	65.9	68.0	67.1	65.9	67.4	67.5	66.4	66.8	66.7	65.9	67.3
8	66.9	67.3	67.5	66.6	65.8	67.2	67.6	67.0	66.8	66.8	67.4	67.6
9	67.5	67.0	66.6	67.0	66.8	67.2	67.6	66.7	65.8	66.5	67.4	67.9
10	67.4	66.6	66.6	67.6	67.3	66.9	67.3	66.3	66.4	66.3	66.5	67.8
11	67.0	67.1	67.3	67.3	67.6	69.1	67.3	66.1	67.2	66.5	66.3	67.2
12	66.7	67.0	66.8	67.4	67.5	67.0	67.1	66.6	66.6	66.1	66.6	66.5
13	66.1	68.0	66.9	67.6	66.7	66.6	67.6	66.8	66.8	67.3	68.7	66.6
14	67.0	67.3	66.8	67.5	68.1	66.9	66.6	66.7	67.1	66.5	67.7	66.8
15	67.1	66.6	66.5	67.0	66.6	66.8	65.8	67.5	67.9	66.9	66.3	67.1
16	67.6	66.5	66.7	66.9	68.0	66.8	67.2	67.0	66.6	67.4	64.8	67.1
17	65.8	67.9	67.2	66.1	67.4	67.4	67.7	66.9	66.2	66.9	66.6	67.3
18	66.6	66.5	66.3	67.7	67.6	66.3	67.2	66.5	68.1	66.3	66.3	66.7
19	67.4	67.0	67.3	66.8	66.8	66.7	67.7	67.0	66.4	68.2	67.3	66.7
20	66.2	67.4	66.9	67.2	67.5	67.6	66.2	67.1	66.4	66.9	66.8	68.0
21	66.9	66.1	67.6	66.3	67.4	68.0	67.7	66.9	67.1	67.6	65.9	67.7
22	65.0	67.3	67.0	66.8	67.4	67.1	66.7	66.3	67.4	67.6	65.8	67.2
23	67.3	66.9	66.5	67.4	67.2	66.8	67.2	67.1	66.3	66.6	65.5	66.7
24	68.5	66.5	67.2	67.7	66.5	67.2	67.9	66.9	67.5	67.4	66.7	67.4
25	65.7	66.7	67.3	66.9	66.6	66.9	67.6	66.3	66.9	67.4	67.3	66.5
26	65.7	66.5	67.6	67.1	68.1	66.0	67.1	66.9	67.0	66.7	66.5	66.7
27	66.2	65.6	66.9	67.0	66.1	67.8	67.9	65.9	67.7	66.6	67.2	65.7
28	68.3	66.8	67.6	67.6	67.1	68.1	67.9	65.8	66.8	66.3	67.7	66.0
29	66.0		67.4	66.5	66.4	67.1	67.1	66.2	67.5	67.4	66.3	67.5
30	65.3		66.3	67.1	66.7	66.2	66.5	66.7	66.3	66.8	67.4	...
31	68.1		66.7		67.6		66.6	66.8		66.5		...
Means	66.74	66.91	67.05	67.12	67.10	67.14	67.17	66.64	66.89	66.93	66.74	67.21

TABLE IX.—MONTHLY MEAN DIURNAL INEQUALITY OF VERTICAL MAGNETIC FORCE.

(The results are expressed in terms of the whole Vertical Force, diminished in each case by the smallest hourly value, the unit in the table being .00001 of the whole Vertical Force. The letters u and c indicate respectively values uncorrected for, and corrected for temperature.)

1910.																								
Hour, Greenwich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c
Midn.	22	13	26	22	42	28	48	40	60	56	48	40	39	34	33	27	33	27	14	10	26	12	16	8
1 ^h	10	3	19	15	29	15	42	36	51	49	43	37	33	28	27	23	26	20	5	3	17	5	11	6
2	6	1	15	13	18	6	36	32	47	47	43	37	29	26	24	20	23	19	0	0	11	3	4	1
3	6	3	13	13	13	5	34	32	45	47	42	38	28	25	23	21	22	18	2	2	8	4	1	0
4	2	1	11	13	9	3	33	35	44	48	42	40	31	28	23	23	21	19	2	4	6	4	2	3
5	1	0	8	10	7	5	31	35	44	50	43	43	32	31	23	23	22	20	3	5	5	6	2	5
6	0	2	7	11	7	7	27	33	40	48	40	42	29	30	24	27	25	25	6	10	4	7	0	5
7	2	6	8	12	8	10	29	37	39	49	41	45	29	30	24	27	25	30	11	17	4	9	4	7
8	4	8	9	13	12	14	31	41	37	47	35	39	27	28	26	31	25	27	15	21	5	8	5	8
9	4	8	8	12	10	12	23	33	27	39	25	31	19	20	23	28	19	21	11	17	6	11	5	8
10	3	5	3	7	3	5	14	20	14	24	12	18	10	13	11	16	8	10	5	9	0	3	5	8
11	3	2	0	0	0	0	5	9	5	11	3	7	0	3	6	11	2	4	0	4	2	3	5	8
Noon.	4	1	3	3	4	0	0	0	0	0	0	0	1	0	0	0	0	0	6	6	4	0	5	6
13 ^h	10	7	5	5	18	10	12	6	15	11	16	12	9	6	15	11	12	8	17	15	12	4	14	13
14	20	1	19	11	35	23	37	29	37	31	27	21	21	16	35	29	29	21	28	24	24	14	22	19
15	29	16	33	25	52	38	57	49	57	51	38	32	32	27	55	49	45	37	40	36	31	19	28	25
16	30	17	37	29	63	47	67	59	73	67	52	46	44	41	67	59	54	46	52	48	35	23	32	27
17	35	22	38	30	68	52	79	71	85	76	65	57	53	50	75	67	59	51	57	53	38	24	35	27
18	37	24	43	35	67	51	80	72	90	84	73	67	58	55	74	66	54	46	57	53	37	23	33	28
19	36	23	42	34	68	49	74	66	89	83	75	69	55	50	69	63	50	42	51	45	34	22	33	30
20	34	23	40	34	67	48	73	62	87	81	67	61	52	47	60	54	47	39	40	36	32	20	29	28
21	31	22	37	33	59	43	67	56	84	78	61	55	49	44	49	43	42	36	32	28	29	17	27	26
22	28	21	32	28	53	37	61	53	76	72	57	51	46	41	44	38	38	32	25	21	22	10	22	19
23	25	18	31	27	46	30	54	46	70	66	52	46	44	39	39	33	33	27	17	13	20	6	20	15
Means corrected for Temperature.	10.3		18.1		22.4		39.7		50.6		38.9		29.7		33.1		26.0		20.0		10.7		13.8	

TABLE X.—MONTHLY MEAN TEMPERATURE at each HOUR of the DAY within the box inclosing the VERTICAL FORCE MAGNET.

1910.													
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midn.	66.9	67.0	67.3	67.4	67.3	67.4	67.3	66.8	67.0	67.1	67.1	67.5	67.17
1 ^h	66.8	67.0	67.3	67.3	67.2	67.3	67.3	66.7	67.0	67.0	67.0	67.4	67.11
2	66.7	66.9	67.2	67.2	67.1	67.3	67.2	66.7	66.9	66.9	66.8	67.3	67.02
3	66.6	66.8	67.0	67.1	67.0	67.2	67.2	66.6	66.9	66.8	66.6	67.2	66.92
4	66.5	66.7	66.9	66.9	66.9	67.1	67.2	66.5	66.8	66.8	66.5	67.1	66.82
5	66.5	66.7	66.7	66.8	66.8	67.0	67.1	66.5	66.8	66.8	66.4	67.0	66.76
6	66.4	66.6	66.6	66.7	66.7	66.9	67.0	66.4	66.7	66.7	66.3	66.9	66.66
7	66.3	66.6	66.5	66.6	66.6	66.8	67.0	66.4	66.6	66.6	66.2	67.0	66.60
8	66.3	66.6	66.5	66.5	66.6	66.8	67.0	66.3	66.6	66.6	66.2	67.0	66.59
9	66.3	66.6	66.5	66.5	66.5	66.7	67.0	66.3	66.6	66.6	66.2	67.0	66.57
10	66.4	66.6	66.5	66.7	66.6	66.7	66.9	66.3	66.6	66.7	66.3	67.0	66.61
11	66.5	66.8	66.6	66.8	66.8	66.8	66.9	66.3	66.6	66.7	66.4	67.0	66.68
Noon.	66.6	66.8	66.8	67.0	67.1	67.0	67.1	66.5	66.7	66.9	66.6	67.1	66.85
13 ^h	66.9	67.0	67.0	67.3	67.3	67.2	67.2	66.7	66.9	67.0	66.8	67.2	67.04
14	67.1	67.2	67.2	67.4	67.4	67.3	67.3	66.8	67.1	67.1	66.9	67.3	67.17
15	67.1	67.2	67.3	67.4	67.4	67.3	67.3	66.8	67.1	67.1	67.0	67.3	67.19
16	67.1	67.2	67.4	67.4	67.4	67.3	67.2	66.9	67.1	67.1	67.0	67.4	67.21
17	67.1	67.2	67.4	67.4	67.5	67.4	67.2	66.9	67.1	67.1	67.1	67.5	67.24
18	67.1	67.2	67.4	67.4	67.4	67.3	67.2	66.9	67.1	67.1	67.1	67.4	67.22
19	67.1	67.2	67.5	67.4	67.4	67.3	67.3	66.8	67.1	67.2	67.0	67.3	67.22
20	67.0	67.1	67.5	67.5	67.4	67.3	67.3	66.8	67.1	67.1	67.0	67.2	67.19
21	66.9	67.0	67.4	67.5	67.4	67.3	67.3	66.8	67.0	67.1	67.0	67.2	67.16
22	66.8	67.0	67.4	67.4	67.3	67.3	67.3	66.8	67.0	67.1	67.0	67.3	67.14
23	66.8	67.0	67.4	67.4	67.3	67.3	67.3	66.8	67.0	67.1	67.1	67.4	67.16

TABLE XI.—MEAN MAGNETIC DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE, in each MONTH.

(The results for Horizontal Force and Vertical Force are corrected for Temperature.)

Month, 1910.	DECLINATION WEST in Arc.	HORIZONTAL FORCE in terms of the whole Horizontal Force (diminished by a Constant).	VERTICAL FORCE in terms of the whole Vertical Force (diminished by a Constant).	in terms of C. G. S. UNIT.		
				DECLINATION diminished by 15° and expressed as Westerly Force	HORIZONTAL FORCE (diminished by a Constant)	VERTICAL FORCE (diminished by a Constant)
January	15. 45. 8	286	935	2469	530	4058
February	15. 44. 1	1161	897	2377	2152	3893
March	15. 43. 9	1059	915	2367	1963	3971
April	15. 43. 0	1031	917	2318	1911	3980
May	15. 41. 2	1075	956	2221	1992	4149
June	15. 41. 4	1178	1077	2232	2183	4674
July	15. 40. 5	1179	1084	2183	2185	4704
August	15. 40. 8	1200	1123	2199	2224	4874
September	15. 39. 6	1113	1061	2135	2063	4605
October	15. 38. 2	1062	1036	2059	1968	4496
November	15. 38. 8	748	892	2092	1386	3871
December	15. 37. 3	720	866	2011	1334	3758
Means	15. 41. 2	.....	.....	2222	.....	.....
Number of Column	1	2	3	4	5	6

The units in columns 2 and 3 are 1/10000 of the whole Horizontal and Vertical Forces respectively, of which the mean values for the year in C. G. S. units are 0.18532 and 0.43399 respectively.

HORIZONTAL FORCE.—At the end of January and again at the end of the year experiments were made for determination of the angle of torsion, thus breaking the continuity of the values.

VERTICAL FORCE.—At the end of the year the magnet was readjusted, thus breaking the continuity of the values.

TABLE XII.—MEAN DIURNAL INEQUALITIES OF MAGNETIC DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE,
for the YEAR 1910.

(Each result is the mean of the twelve monthly mean values, the annual means for each element being diminished by the smallest hourly value. The results for Horizontal Force and Vertical Force are corrected for temperature.)

Hour, Greenwich Civil Time.	Inequality of			Inequality of		
	DECLINATION WEST in Arc.	HORIZONTAL FORCE in terms of the whole Horizontal Force.	VERTICAL FORCE in terms of the whole Vertical Force.	DECLINATION expressed as WESTERLY FORCE	HORIZONTAL FORCE	VERTICAL FORCE
				in terms of C. G. S. UNIT.		
Midnight.	0.63	143.9	25.1	34.0	266.7	108.9
1 ^h	0.88	139.4	18.7	47.4	258.3	81.2
2	1.10	133.4	15.8	59.3	247.2	68.6
3	1.17	131.5	16.0	63.1	243.7	69.4
4	1.04	133.7	17.1	56.1	247.8	74.2
5	0.74	136.9	18.1	39.9	253.7	78.6
6	0.54	127.3	19.3	29.1	235.9	83.8
7	0.26	105.8	22.4	14.0	196.1	97.2
8	0.00	71.0	22.5	0.0	131.6	97.6
9	0.45	32.1	18.7	24.3	59.5	81.2
10	1.94	6.7	10.2	104.6	12.4	44.3
11	4.04	0.0	3.9	217.8	0.0	16.9
Noon.	5.74	19.1	0.0	309.4	35.4	0.0
13 ^h	6.60	50.2	7.2	355.8	93.0	31.2
14	6.35	73.3	19.1	342.3	135.8	82.9
15	5.18	90.7	32.4	279.2	168.1	140.6
16	3.95	101.6	41.1	212.9	188.3	178.4
17	2.89	115.7	47.0	155.8	214.4	204.0
18	2.10	128.9	49.0	113.2	238.9	212.7
19	1.41	138.0	46.7	76.0	255.7	202.7
20	0.94	139.9	43.1	50.7	259.3	187.0
21	0.64	140.0	38.8	34.5	259.4	168.4
22	0.37	139.7	34.0	19.9	258.9	147.6
23	0.39	140.7	29.2	21.0	260.7	126.7
Means	2.06	101.6	24.8	110.8	188.4	107.7
Number of Column	1	2	3	4	5	6

The units in columns 2 and 3 are 1/10000 of the whole Horizontal and Vertical Forces respectively, the mean values of which for the year in C. G. S. units are 0.18532 and 0.43399 respectively.

TABLE XIII.—DIURNAL RANGE OF DECLINATION AND HORIZONTAL FORCE, on each CIVIL DAY, as deduced from the TWENTY-FOUR HOURLY MEASURES of ORDINATES of the PHOTOGRAPHIC REGISTERS.
(The Declination is expressed in minutes of arc ; the unit for Horizontal Force is '00001 of the whole Horizontal Force.
The results for Horizontal Force are corrected for temperature.)

1910.																								
Day of Month.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.
1	9.2	...	4.6	...	7.2	146	10.9	532	6.1	267	10.1	270	5.4	257	13.2	175	10.3	218	10.5	143	5.9	148	5.6	76
2	5.0	...	5.6	165	7.2	108	9.2	311	8.6	280	10.6	284	7.5	231	10.2	289	8.7	260	11.2	379	7.8	355	8.8	153
3	4.3	...	6.8	150	5.7	138	10.3	226	11.0	233	11.5	192	9.8	252	11.0	347	11.2	301	9.0	221	4.5	110	7.8	137
4	6.5	...	12.2	172	12.7	209	9.9	358	10.1	176	9.7	247	11.4	366	8.9	384	10.9	201	12.4	236	8.1	209	6.6	156
5	5.6	...	6.3	186	6.4	118	9.6	261	8.3	233	8.7	271	10.1	405	10.5	278	10.6	207	11.7	251	6.7	189	6.9	97
6	5.9	...	5.0	88	10.1	158	9.5	252	8.7	197	10.9	289	8.8	245	10.6	221	13.0	237	18.7	435	7.5	174	7.3	112
7	5.7	...	5.0	66	11.8	179	10.2	169	9.1	223	9.1	287	9.7	346	10.4	241	11.8	320	7.5	197	4.3	226	6.8	93
8	3.3	61	3.6	77	9.6	122	9.9	181	7.4	167	15.3	297	8.8	354	9.6	237	9.7	263	11.1	202	9.3	222	7.0	144
9	4.9	149	6.3	83	8.1	118	11.7	237	8.9	245	7.8	274	8.8	210	12.6	244	8.9	221	7.3	165	8.0	175	4.4	60
10	4.8	142	4.8	92	7.2	136	12.1	277	6.8	203	9.3	271	8.0	392	16.5	560	8.5	185	11.3	178	8.0	176	3.6	71
11	2.4	70	3.6	141	8.9	170	11.1	274	6.8	212	9.3	366	10.1	232	7.7	182	10.0	160	10.0	192	5.0	349	4.9	90
12	...	68	2.6	147	7.9	169	11.4	331	8.2	286	7.5	200	8.6	244	8.2	242	8.6	219	11.0	139	5.0	114	3.3	107
13	...	...	5.1	133	10.0	105	11.1	294	10.0	419	9.9	354	10.5	207	7.2	198	9.0	89	8.4	346	5.3	150	7.0	331
14	5.6	129	7.6	140	11.0	295	10.9	234	6.5	189	10.1	246	7.8	272	13.3	274	8.1	182	8.0	267	6.3	105	6.1	132
15	5.0	145	6.5	180	9.7	129	10.1	180	7.8	190	10.1	249	8.3	199	8.7	172	7.2	249	7.1	194	6.2	144	9.4	367
16	5.7	147	6.2	86	...	...	8.4	197	7.8	204	6.6	201	10.6	257	7.4	129	8.0	232	5.5	129	10.0	202	5.2	92
17	8.9	335	10.4	306	...	...	8.2	189	6.9	261	10.1	269	8.3	227	10.8	199	6.7	145	6.5	136	11.8	280	3.7	94
18	6.8	117	13.7	317	8.7	158	16.8	495	9.5	241	9.6	252	5.4	278	14.1	276	6.3	108	9.0	181	13.5	298	8.8	219
19	4.9	150	5.1	147	7.8	142	8.0	336	11.8	205	9.8	243	10.9	226	13.2	345	8.5	155	21.2	435	9.5	258	7.6	153
20	4.5	191	10.0	246	17.0	311	7.8	190	11.0	224	19.7	399	8.9	209	9.9	284	9.7	183	12.0	233	9.8	228	6.5	284
21	7.6	177	9.0	276	13.9	195	7.8	249	8.6	110	9.9	422	10.3	118	14.1	259	9.9	348	14.0	314	5.6	108	4.6	118
22	13.9	306	7.0	162	8.7	207	10.4	218	11.5	188	9.2	295	10.2	260	18.0	720	13.8	264	9.0	272	7.5	202	6.8	353
23	10.8	145	8.1	132	8.6	134	16.5	410	11.9	242	7.6	340	9.2	273	9.6	342	10.8	307	10.0	317	8.4	191	5.8	149
24	18.0	340	5.3	210	9.0	155	11.0	290	15.9	257	10.7	277	9.6	307	12.0	234	13.7	347	8.7	308	5.0	93	8.0	205
25	13.2	362	10.5	360	9.9	196	10.9	257	14.7	391	10.7	413	12.6	243	8.4	286	13.7	385	11.5	345	7.4	140	8.2	396
26	12.6	261	5.6	122	10.2	239	8.2	210	9.4	342	10.7	405	8.7	212	8.7	244	9.6	237	11.3	325	8.8	170	4.5	86
27	5.8	124	7.2	89	20.6	301	15.5	508	9.2	249	9.9	327	9.8	179	9.5	279	9.4	361	12.6	409	6.2	154	5.0	153
28	5.2	116	10.6	144	21.6	811	8.5	371	8.5	287	10.8	277	6.4	231	12.6	700	9.1	270	6.8	373	8.0	321	11.7	272
29	6.1	160	...	...	11.4	415	9.3	445	11.2	229	12.4	434	11.7	396	11.1	505	20.6	380	8.9	220	12.5	259	9.3	235
30	5.6	119	...	...	7.7	168	7.2	302	9.5	269	7.4	187	8.0	252	9.2	312	7.4	305	8.8	284	5.3	168	4.5	...
31	5.6	...	...	...	23.8	280	...	...	12.8	322	...	...	7.0	199	7.3	325	...	...	5.5	245	...	...	5.0	...
Means	7.0	173	6.9	164	10.8	207	10.4	293	9.5	243	10.2	295	9.1	261	10.8	306	10.1	245	10.2	260	7.6	197	6.5	170

The mean of the twelve monthly values is, for Declination 9.09, and for Horizontal Force 234.5.

TABLE XIV.—MONTHLY MEAN DIURNAL RANGE, and SUMS of HOURLY DEVIATIONS from MEAN, for DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE, as deduced from the Monthly Mean Diurnal Inequalities, Tables II., V., and IX.
(The Declination is expressed in minutes of arc : the units for Horizontal Force and Vertical Force are '00001 of the whole Horizontal and Vertical Forces respectively. The results for Horizontal Force and Vertical Force are corrected for temperature.)

Month, 1910.	Difference between the Greatest and Least of the 24 Hourly Values.			Sum of the 24 Hourly Deviations from the Mean Value.		
	Declination.	Horizontal Force.	Vertical Force.	Declination.	Horizontal Force.	Vertical Force.
January	5.5	125	24	30.8	610	191
February	5.5	89	35	31.4	501	231
March	8.0	135	52	52.2	816	398
April	9.0	235	72	46.8	1476	358
May	8.2	189	84	48.3	1183	417
June	9.2	252	69	52.7	1536	312
July	8.4	199	55	44.4	1318	272
August	8.9	226	67	52.0	1448	348
September	7.8	191	51	47.3	1228	255
October	7.7	188	53	42.6	1197	330
November	6.2	130	24	30.1	848	157
December	5.1	92	30	25.4	555	214
Means	7.46	170.9	51.3	42.00	1059.7	290.25

TABLE XV.—VALUES of the CO-EFFICIENTS in the PERIODICAL EXPRESSION

$$V_t = m + a_1 \cos t + b_1 \sin t + a_2 \cos 2t + b_2 \sin 2t + a_3 \cos 3t + b_3 \sin 3t + a_4 \cos 4t + b_4 \sin 4t$$

(in which t is the time from Greenwich mean midnight converted into arc at the rate of 15° to each hour, and V_t the mean value of the magnetic element at the time t for each month and for the year, as given in Tables II., V., IX., and XII., the values for Horizontal Force and Vertical Force being corrected for temperature).

The values of the co-efficients for Declination are given in minutes of arc: the units for Horizontal Force and Vertical Force are $\cdot 00001$ of the whole Horizontal and Vertical Forces respectively.

Month, 1910.	m	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4
DECLINATION WEST.									
January.....	2'13	- 1'72	- 0'61	+ 0'22	+ 1'07	- 0'39	- 0'17	+ 0'30	+ 0'25
February.....	2'16	- 1'78	- 0'65	+ 0'43	+ 0'92	- 0'46	- 0'17	+ 0'04	+ 0'26
March.....	2'31	- 2'88	- 1'38	+ 0'81	+ 1'23	- 0'54	- 0'61	+ 0'48	+ 0'25
April.....	3'41	- 1'90	- 1'62	+ 1'12	+ 1'76	- 0'73	- 0'88	+ 0'33	+ 0'29
May.....	3'41	- 1'94	- 2'02	+ 1'14	+ 1'42	- 0'64	- 0'28	+ 0'01	- 0'03
June.....	4'30	- 1'70	- 2'59	+ 1'60	+ 1'55	- 0'49	- 0'05	+ 0'09	- 0'04
July.....	3'73	- 1'34	- 2'27	+ 1'30	+ 1'50	- 0'53	- 0'31	- 0'01	+ 0'09
August.....	3'04	- 2'38	- 1'69	+ 1'61	+ 1'50	- 0'62	- 0'62	+ 0'03	+ 0'04
September.....	2'14	- 2'47	- 0'86	+ 1'64	+ 1'02	- 0'82	- 0'46	+ 0'20	+ 0'21
October.....	2'85	- 2'45	- 0'08	+ 0'88	+ 1'64	- 0'39	- 0'56	+ 0'40	+ 0'19
November.....	2'57	- 1'80	+ 0'03	+ 0'50	+ 1'19	- 0'54	- 0'20	+ 0'30	+ 0'22
December.....	2'58	- 1'65	+ 0'32	+ 0'13	+ 0'94	- 0'20	+ 0'06	+ 0'18	+ 0'19
For the Year.....	2'06	- 2'00	- 1'12	+ 0'95	+ 1'31	- 0'53	- 0'35	+ 0'19	+ 0'16
HORIZONTAL FORCE.									
January.....	66'2	+ 21'7	+ 13'4	- 31'8	+ 14'6	+ 11'0	- 10'2	+ 2'5	+ 6'7
February.....	47'1	+ 23'5	+ 15'1	- 14'1	+ 4'1	+ 1'9	- 12'2	+ 3'3	+ 7'4
March.....	93'4	+ 50'0	- 3'7	- 17'6	+ 16'2	+ 2'2	- 14'1	+ 1'0	+ 8'2
April.....	155'6	+ 89'2	- 32'8	- 34'7	+ 11'0	+ 11'0	- 13'6	+ 0'3	+ 4'1
May.....	114'0	+ 60'9	- 44'5	- 29'0	+ 13'4	+ 7'8	- 4'3	+ 3'7	+ 1'0
June.....	146'7	+ 74'8	- 61'2	- 36'0	+ 26'1	- 5'3	- 8'0	+ 5'5	+ 3'8
July.....	123'3	+ 74'5	- 37'8	- 29'8	+ 11'5	+ 0'9	- 7'3	+ 3'3	+ 3'0
August.....	148'7	+ 85'1	- 41'1	- 22'2	+ 21'1	- 0'4	- 18'8	+ 3'9	+ 4'6
September.....	125'2	+ 75'7	- 22'4	- 16'2	+ 16'3	- 3'7	- 15'9	+ 4'1	+ 7'3
October.....	123'2	+ 71'0	+ 15'0	- 22'8	+ 13'8	+ 7'9	- 22'6	+ 1'3	+ 7'2
November.....	70'8	+ 40'1	+ 29'0	- 19'9	+ 7'6	+ 5'7	- 12'2	+ 2'6	+ 9'5
December.....	35'5	+ 17'2	+ 29'6	- 9'4	- 3'3	+ 4'5	- 8'3	+ 7'1	+ 3'3
For the Year.....	101'6	+ 57'0	- 11'8	- 23'6	+ 12'7	+ 3'6	- 12'3	+ 3'2	+ 5'5
VERTICAL FORCE.									
January.....	10'3	+ 3'1	- 10'0	- 3'6	- 4'1	+ 2'4	- 0'1	- 1'1	- 1'0
February.....	18'1	+ 7'0	- 11'2	- 5'8	- 2'3	+ 2'7	- 0'1	- 1'6	- 0'5
March.....	22'4	+ 5'5	- 22'6	- 8'6	- 3'1	+ 5'8	- 0'6	- 1'5	- 0'3
April.....	39'7	+ 11'4	- 15'5	- 16'1	- 2'6	+ 7'6	+ 1'8	- 3'1	- 1'4
May.....	50'6	+ 19'6	- 15'9	- 17'9	- 4'8	+ 6'4	+ 0'3	- 3'2	- 1'2
June.....	38'9	+ 14'7	- 9'2	- 16'3	- 3'9	+ 3'4	+ 1'0	- 0'5	+ 0'9
July.....	29'7	+ 11'8	- 10'1	- 12'4	- 2'6	+ 4'4	+ 0'5	+ 0'1	- 1'1
August.....	33'1	+ 4'3	- 17'6	- 15'9	- 1'3	+ 6'9	+ 2'0	- 2'0	- 0'5
September.....	26'0	+ 5'2	- 11'3	- 11'8	- 0'6	+ 6'9	- 0'4	- 1'6	- 0'2
October.....	20'0	- 3'8	- 18'6	- 12'3	- 1'5	+ 5'1	+ 1'2	- 0'7	+ 0'3
November.....	10'7	+ 0'1	- 8'1	- 5'6	- 0'2	+ 2'6	+ 0'3	- 1'0	+ 0'4
December.....	13'8	- 0'9	- 12'8	- 4'3	- 2'1	+ 0'9	- 1'2	- 1'1	0'0
For the Year.....	24'8	+ 6'5	- 13'6	- 10'9	- 2'4	+ 4'6	+ 0'4	- 1'4	- 0'4

TABLE XVI.—VALUES of the CO-EFFICIENTS and CONSTANT ANGLES in the PERIODICAL EXPRESSIONS

$$V_t = m + c_1 \sin(t + a) + c_2 \sin(2t + \beta) + c_3 \sin(3t + \gamma) + c_4 \sin(4t + \delta)$$

$$V_{t'} = m + c_1 \sin(t' + a') + c_2 \sin(2t' + \beta') + c_3 \sin(3t' + \gamma') + c_4 \sin(4t' + \delta')$$

(in which t and t' are the times from Greenwich mean midnight and apparent midnight respectively, converted into arc at the rate of $15''$ to each hour, and V_h, V_v the mean value of the magnetic element at the time t or t' for each month and for the year, as given in Tables II., V., IX., and XII., the values for Horizontal Force and Vertical Force being corrected for temperature).

The values of the co-efficients for Declination are given in minutes of arc: the units for Horizontal Force and Vertical Force are $\cdot 00001$ of the whole Horizontal and Vertical Forces respectively.

Month, 1910.	m	c_1	a	a'	c_2	β	β'	c_3	γ	γ'	c_4	δ	δ'
DECLINATION WEST.													
January	2'13	1'82	250° 19'	252° 38'	1'09	11° 29'	16° 7'	0'42	247° 0'	253° 58'	0'40	50° 18'	59° 35'
February.....	2'16	1'90	250. 3	253. 32	1'02	25. 16	32. 15	0'49	249. 50	260. 18	0'26	9. 6	23. 4
March.....	2'31	3'19	244. 22	246. 34	1'47	33. 22	37. 46	0'82	221. 24	228. 1	0'54	63. 7	71. 56
April.....	3'41	2'50	229. 37	229. 41	2'08	32. 27	32. 36	1'15	219. 42	219. 55	0'43	48. 25	48. 43
May.....	3'41	2'80	223. 49	222. 57	1'82	38. 37	36. 54	0'70	246. 29	243. 54	0'03	164. 3	160. 36
June.....	4'30	3'10	213. 17	213. 21	2'23	45. 54	46. 1	0'49	264. 2	264. 13	0'10	115. 18	115. 33
July.....	3'73	2'63	210. 30	211. 51	1'98	41. 4	43. 47	0'61	239. 51	243. 55	0'09	354. 30	359. 56
August.....	3'04	2'92	234. 39	235. 38	2'20	47. 3	49. 1	0'88	225. 9	228. 7	0'05	39. 9	43. 6
September.....	2'14	2'62	250. 43	249. 32	1'93	58. 11	55. 48	0'94	240. 54	237. 20	0'29	44. 18	39. 32
October.....	2'85	2'45	268. 10	264. 42	1'86	28. 13	21. 18	0'68	214. 55	204. 32	0'44	63. 46	49. 55
November.....	2'57	1'80	270. 57	267. 10	1'29	22. 38	15. 4	0'58	250. 15	238. 54	0'37	54. 10	39. 2
December.....	2'58	1'68	280. 51	279. 45	0'95	7. 59	5. 47	0'21	287. 5	283. 47	0'26	42. 35	38. 11
For the Year.....	2'06	2'29	240. 47	240. 47	1'62	35. 52	35. 52	0'64	236. 25	236. 25	0'25	50. 59	50. 59
HORIZONTAL FORCE.													
January	66.2	25.5	58. 12	60. 31	35.0	294. 40	299. 18	15.0	132. 56	139. 54	7.1	20. 8	29. 25
February.....	47.1	27.9	57. 16	60. 45	14.7	286. 7	293. 6	12.4	171. 5	181. 33	8.1	23. 53	37. 51
March.....	93.4	50.1	94. 13	96. 25	23.9	312. 44	317. 8	14.2	171. 15	177. 52	8.2	7. 17	16. 6
April.....	155.6	95.1	110. 9	110. 13	36.4	287. 39	287. 48	17.5	140. 49	141. 2	4.1	4. 3	4. 21
May.....	114.0	75.4	126. 11	125. 19	31.9	294. 45	293. 2	8.9	118. 57	116. 22	3.8	74. 37	71. 10
June.....	146.7	96.7	129. 18	129. 22	44.5	305. 55	306. 2	9.6	213. 33	213. 44	6.7	55. 43	55. 58
July.....	123.3	83.5	116. 53	118. 14	32.0	291. 3	293. 46	7.3	173. 7	177. 11	4.5	47. 42	53. 8
August.....	148.7	94.5	115. 46	116. 45	30.6	313. 28	315. 26	18.8	181. 9	184. 7	6.0	40. 25	44. 22
September.....	125.2	79.0	106. 29	105. 18	23.0	315. 7	312. 44	16.3	192. 58	189. 24	8.4	29. 30	24. 44
October.....	123.2	72.6	78. 6	74. 38	26.7	301. 9	294. 14	24.0	160. 50	150. 27	7.3	10. 28	356. 37
November.....	70.8	49.5	54. 5	50. 18	21.3	290. 52	283. 18	13.4	154. 56	143. 35	9.8	15. 31	0. 23
December.....	35.5	34.2	30. 10	29. 4	10.0	250. 59	248. 47	9.4	151. 40	148. 22	7.8	65. 29	61. 5
For the Year.....	101.6	58.2	101. 41	101. 41	26.8	298. 14	298. 14	12.8	163. 34	163. 34	6.4	30. 23	30. 23
VERTICAL FORCE.													
January	10.3	10.5	162. 53	165. 12	5.4	221. 2	225. 40	2.4	92. 48	99. 46	1.5	227. 3	236. 20
February.....	18.1	13.2	147. 53	151. 22	6.2	248. 34	255. 33	2.7	91. 14	101. 42	1.7	252. 38	266. 36
March.....	22.4	23.2	166. 15	168. 27	9.1	250. 12	254. 36	5.8	95. 48	102. 25	1.5	259. 0	267. 49
April.....	39.7	19.2	143. 39	143. 43	16.3	260. 50	260. 59	7.8	76. 36	76. 49	3.4	246. 15	246. 33
May.....	50.6	25.3	129. 0	128. 8	18.6	255. 6	253. 23	6.4	87. 0	84. 25	3.4	249. 54	246. 27
June.....	38.9	17.3	122. 10	122. 14	16.8	256. 34	256. 41	3.6	73. 26	73. 37	1.0	334. 3	334. 18
July.....	29.7	15.6	130. 34	131. 55	12.7	258. 11	260. 54	4.4	83. 11	87. 15	1.1	173. 25	178. 51
August.....	33.1	18.1	166. 10	167. 9	15.9	265. 23	267. 21	7.1	74. 1	76. 59	2.1	256. 1	259. 58
September.....	26.0	12.4	155. 2	153. 51	11.8	267. 19	264. 56	6.9	93. 2	89. 28	1.6	262. 24	257. 38
October.....	20.0	18.9	191. 30	188. 2	12.4	263. 4	256. 9	5.2	77. 3	66. 40	0.7	293. 38	279. 47
November.....	10.7	8.1	179. 17	175. 30	5.6	267. 33	259. 59	2.7	83. 21	72. 0	1.1	293. 26	278. 18
December.....	13.8	12.8	184. 0	182. 54	4.8	244. 28	242. 16	1.5	144. 53	141. 35	1.1	270. 0	265. 36
For the Year.....	24.8	15.0	154. 20	154. 20	11.2	257. 25	257. 25	4.6	85. 11	85. 11	1.5	255. 42	255. 42

TABLE XVII.—RESULTS of OBSERVATIONS of MAGNETIC DIP made in the MAGNETIC PAVILION in the YEAR 1910.

Greenwich Civil Time, 1910.	3-inch Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1910.	3-inch Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1910.	3-inch Needle.	Magnetic Dip.	Observer.
Jan. d h				May d h				Sept. d h			
3. 12	D ₁	66. 55. 7	E	2. 15	D ₁	66. 54. 55	E	1. 13	D ₁	66. 51. 49	B
5. 12	D ₂	66. 52. 10	E	4. 12	D ₂	66. 51. 8	E	3. 12	D ₂	66. 51. 52	B
7. 12	D ₁	66. 54. 27	E	6. 12	D ₁	66. 52. 27	E	5. 12	D ₁	66. 52. 59	B
10. 12	D ₂	66. 52. 42	E	9. 13	D ₂	66. 50. 13	E	7. 12	D ₂	66. 50. 56	B
12. 12	D ₁	66. 53. 27	E	11. 12	D ₁	66. 53. 59	E	12. 13	D ₁	66. 53. 28	E
14. 12	D ₂	66. 52. 7	E	13. 12	D ₂	66. 55. 8	E	15. 12	D ₂	66. 52. 15	E
17. 15	D ₂	66. 53. 58	B	17. 13	D ₂	66. 52. 57	B	16. 12	D ₂	66. 49. 21	E
20. 12	D ₁	66. 53. 34	B	19. 12	D ₁	66. 54. 9	B	19. 12	D ₁	66. 53. 10	B
22. 12	D ₂	66. 52. 10	B	21. 12	D ₂	66. 50. 2	B	21. 12	D ₂	66. 54. 53	B
24. 13	D ₁	66. 53. 25	B	23. 12	D ₁	66. 50. 58	B	26. 12	D ₁	66. 54. 54	E
26. 13	D ₂	66. 55. 25	B	27. 12	D ₂	66. 51. 47	B	28. 12	D ₂	66. 49. 6	E
28. 12	D ₁	66. 53. 31	B	30. 13	D ₁	66. 52. 22	B	29. 12	D ₁	66. 54. 46	E
Feb. 2. 12	D ₁	66. 52. 55	B	June 2. 12	D ₁	66. 52. 21	B	Oct. 3. 12	D ₁	66. 53. 16	B
5. 12	D ₂	66. 53. 24	B	4. 12	D ₂	66. 51. 17	B	4. 12	D ₂	66. 56. 2	B
8. 12	D ₁	66. 51. 52	B	7. 12	D ₁	66. 51. 58	B	7. 12	D ₁	66. 54. 59	B
9. 14	D ₂	66. 52. 5	B	9. 12	D ₂	66. 51. 47	B	10. 12	D ₂	66. 53. 8	B
11. 13	D ₁	66. 51. 45	B	11. 13	D ₁	66. 53. 9	B	12. 15	D ₁	66. 52. 38	B
14. 13	D ₂	66. 49. 32	B	14. 12	D ₂	66. 54. 32	B	14. 13	D ₂	66. 55. 1	B
15. 12	D ₂	66. 48. 39	E	16. 12	D ₂	66. 49. 22	E	17. 12	D ₂	66. 50. 7	E
17. 12	D ₁	66. 52. 13	E	20. 12	D ₁	66. 54. 35	E	19. 12	D ₁	66. 54. 30	E
21. 12	D ₂	66. 51. 28	E	22. 12	D ₂	66. 49. 8	E	21. 12	D ₂	66. 50. 46	E
23. 12	D ₁	66. 53. 18	E	23. 12	D ₁	66. 52. 52	E	24. 12	D ₁	66. 53. 28	E
25. 13	D ₂	66. 51. 8	E	27. 12	D ₂	66. 50. 10	E	26. 12	D ₂	66. 53. 18	E
28. 12	D ₁	66. 52. 21	E	29. 12	D ₁	66. 51. 22	E	28. 12	D ₁	66. 55. 9	E
Mar. 2. 13	D ₁	66. 53. 11	B	July 1. 12	D ₁	66. 51. 17	E	Nov. 1. 12	D ₁	66. 52. 46	E
4. 12	D ₂	66. 51. 10	B	4. 13	D ₂	66. 50. 51	B	3. 12	D ₂	66. 55. 52	E
7. 13	D ₁	66. 52. 57	B	5. 13	D ₁	66. 52. 37	B	7. 12	D ₁	66. 52. 26	E
9. 13	D ₂	66. 49. 53	B	8. 12	D ₂	66. 50. 39	E	9. 12	D ₂	66. 53. 43	E
12. 12	D ₁	66. 52. 5	B	12. 12	D ₁	66. 52. 32	E	11. 12	D ₁	66. 53. 59	E
14. 12	D ₂	66. 51. 53	B	15. 12	D ₂	66. 50. 33	E	14. 12	D ₂	66. 49. 45	E
17. 12	D ₂	66. 49. 19	E	18. 12	D ₂	66. 48. 24	B	16. 12	D ₂	66. 52. 46	B
18. 12	D ₁	66. 52. 12	E	19. 12	D ₁	66. 50. 14	B	19. 13	D ₁	66. 54. 29	B
21. 12	D ₂	66. 51. 23	E	22. 12	D ₂	66. 55. 16	B	21. 14	D ₂	66. 55. 0	B
23. 12	D ₁	66. 51. 45	E	25. 12	D ₁	66. 52. 33	B	24. 10	D ₁	66. 54. 24	B
29. 12	D ₂	66. 52. 59	E	28. 12	D ₂	66. 52. 57	E	28. 12	D ₂	66. 50. 50	B
30. 12	D ₁	66. 53. 12	E	29. 12	D ₁	66. 53. 37	E	29. 13	D ₁	66. 53. 17	B
Apr. 1. 12	D ₁	66. 56. 0	B	Aug. 2. 15	D ₁	66. 52. 1	E	Dec. 2. 15	D ₁	66. 56. 59	B
4. 13	D ₂	66. 52. 58	B	4. 12	D ₂	66. 55. 33	E	5. 15	D ₂	66. 53. 12	B
6. 12	D ₁	66. 51. 52	B	8. 12	D ₁	66. 52. 25	E	7. 11	D ₁	66. 50. 12	B
8. 13	D ₂	66. 50. 25	B	10. 12	D ₂	66. 53. 27	E	10. 12	D ₂	66. 49. 43	B
12. 12	D ₁	66. 51. 8	B	12. 12	D ₁	66. 51. 55	E	12. 15	D ₁	66. 51. 38	B
14. 12	D ₂	66. 51. 31	B	15. 12	D ₂	66. 47. 53	E	14. 12	D ₂	66. 51. 38	B
18. 12	D ₂	66. 55. 36	E	19. 13	D ₂	66. 50. 56	B	16. 12	D ₂	66. 50. 15	E
20. 12	D ₁	66. 54. 4	E	20. 12	D ₁	66. 52. 51	B	19. 12	D ₁	66. 54. 7	E
22. 12	D ₂	66. 54. 42	E	22. 13	D ₂	66. 57. 22	B	21. 12	D ₂	66. 55. 25	E
26. 12	D ₁	66. 53. 39	E	25. 13	D ₁	66. 55. 8	B	22. 11	D ₁	66. 53. 57	E
28. 12	D ₂	66. 53. 0	E	29. 15	D ₂	66. 52. 36	B	28. 12	D ₂	66. 52. 8	E
29. 12	D ₁	66. 54. 35	E	30. 12	D ₁	66. 52. 50	B	30. 10	D ₁	66. 53. 42	E

The initials B and E are those of Mr. Bryant and Mr. Edney.

TABLE XVIII.—MONTHLY and YEARLY MEANS of MAGNETIC DIP in the YEAR 1910.

Monthly Means of Magnetic Dip.				
Month, 1910.	D ₁ , 3-inch Needle.	Number of Observations.	D ₂ , 3-inch Needle.	Number of Observations.
January	66°. 53'. 55"	6	66°. 53'. 5"	6
February	66. 52. 24	6	66. 51. 3	6
March.....	66. 52. 34	6	66. 51. 6	6
April	66. 53. 33	6	66. 53. 2	6
May.....	66. 53. 8	6	66. 51. 53	6
June.....	66. 52. 43	6	66. 51. 3	6
July.....	66. 52. 8	6	66. 51. 27	6
August.....	66. 52. 52	6	66. 52. 58	6
September	66. 53. 31	6	66. 51. 24	6
October.....	66. 54. 0	6	66. 53. 4	6
November.....	66. 53. 34	6	66. 52. 59	6
December.....	66. 53. 26	6	66. 52. 4	6
Means.....	66°. 53'. 9"	Sum 72	66°. 52'. 6"	Sum 72
Mean Annual Dip.....	66°. 52'. 37"			

The monthly means have been formed without reference to the hour at which the observation on each day was made.
 In combining the monthly results, to form annual means, weights have been given proportional to the number of observations.

TABLE XIX.—DETERMINATIONS of the ABSOLUTE VALUE of HORIZONTAL MAGNETIC FORCE in the YEAR 1910.

Abstract of the Observations of Deflexion of a Magnet for Absolute Measure of Horizontal Force made with the Gibson Instrument in the Magnetic Pavilion.

Greenwich Civil Time, 1910.	Distances of Centres of Magnets.	Temperature Fahrenheit.	Observed Deflexion.	Mean of the Times of Vibration of Deflecting Magnet.	Number of Vibrations.	Temperature Fahrenheit.	Observer.
January 7. 13	ft. 1'0 1'3	° 43'2	9. 36. 49 4. 21. 55	^s 5'813 5'811	100 100	43'6 44'4	E
January 24. 15	1'0 1'3	45'7	9. 36. 15 4. 21. 38	5'812 5'816	100 100	45'6 46'8	B
February 8. 15	1'0 1'3	49'8	9. 35. 8 4. 21. 10	5'811 5'811	100 100	49'1 49'7	B
February 21. 15	1'0 1'3	51'7	9. 35. 49 4. 21. 24	5'815 5'814	100 100	52'6 53'9	E
March 7. 15	1'0 1'3	56'2	9. 34. 40 4. 21. 0	5'817 5'817	100 100	56'0 57'6	B
March 23. 13	1'0 1'3	50'4	9. 35. 54 4. 21. 34	5'815 5'814	100 100	50'7 53'1	E
April 7. 15	1'0 1'3	54'0	9. 35. 15 4. 21. 10	5'813 5'815	100 100	53'2 54'8	B
April 27. 15	1'0 1'3	55'4	9. 34. 46 4. 20. 56	5'816 5'811	100 100	55'4 56'6	E
May 6. 15	1'0 1'3	54'0	9. 35. 9 4. 21. 16	5'812 5'814	100 100	54'8 56'0	E
May 23. 15	1'0 1'3	73'4	9. 32. 10 4. 20. 0	5'820 5'820	100 100	73'7 ...	B
June 8. 15	1'0 1'3	74'3	9. 32. 15 4. 19. 45	5'819 5'817	100 100	75'1 76'5	B
June 23. 15	1'0 1'3	66'3	9. 33. 39 4. 20. 23	5'819 5'821	100 100	67'1 68'1	E
July 8. 15	1'0 1'3	58'4	9. 34. 31 4. 21. 1	5'818 5'819	100 100	59'1 60'1	E
July 22. 15	1'0 1'3	65'8	9. 33. 3 4. 20. 13	5'820 5'818	100 100	65'8 66'0	B
August 8. 15	1'0 1'3	65'1	9. 33. 25 4. 20. 24	5'821 5'820	100 280	65'6 66'6	E
August 23. 13	1'0 1'3	66'5	9. 34. 0 4. 20. 35	5'827 5'825	100 100	65'9 66'5	B
September 7. 16	1'0 1'3	59'2	9. 34. 50 4. 21. 3	5'817 5'819	100 100	58'4 59'2	B
September 22. 15	1'0 1'3	61'3	9. 36. 50 4. 21. 53	5'811 5'815	100 100	61'9 63'0	E
October 7. 16	1'0 1'3	65'0	9. 35. 30 4. 21. 20	5'816 5'811	100 100	64'7 65'1	B
October 24. 15	1'0 1'3	55'6	9. 37. 0 4. 21. 58	5'812 5'811	100 100	56'3 57'9	E
November 7. 15	1'0 1'3	51'1	9. 36. 28 4. 21. 54	5'805 5'806	100 100	52'2 53'9	E
November 24. 13	1'0 1'3	44'9	9. 37. 58 4. 22. 35	5'802 5'804	100 100	44'6 46'0	B
December 7. 13	1'0 1'3	50'2	9. 36. 40 4. 21. 53	5'806 5'806	100 100	49'9 51'1	B
December 22. 12	1'0 1'3	51'2	9. 37. 19 4. 22. 20	5'808 5'811	100 100	51'8 52'0	E

The deflecting magnet is placed on the east side of the suspended magnet, with its marked pole alternately east and west, and on the west side with its marked pole also alternately east and west: the deflexion given in the table above is the mean of four deflexions observed in these positions of the magnets.

The initials B and E are those of Mr. Bryant and Mr. Edney.

In the subsequent calculations every observation is reduced to the temperature 35° Fahrenheit.

TABLE XIX.—*continued*—COMPUTATION of the VALUES of HORIZONTAL FORCE in ABSOLUTE MEASURE.

From Observations made with the Gibson Instrument in the Magnetic Pavilion.

Greenwich Civil Time, 1910.	In British Units.									In C. G. S. Units.	
	Apparent Value of A ₁ .	Apparent Value of A ₂ .	Apparent Value of P.	Mean Value of P.	Log. $\frac{m}{X}$.	Corrected Time of Vibration of Deflecting Magnet.	Log. $m X$.	Value of m .	Value of Horizontal Force X .	Value of Horizontal Force.	
										As observed.	Reduced to Mean of Month.
d h						s					
Jan. 7. 13	0.08360	0.08371	0.00305	0.00327	8.92362	5.8191	0.13110	0.3368	4.0155	.18515	.18513
Jan. 24. 15	0.08356	0.08365	0.00271		8.92336	5.8215	0.13075	0.3366	4.0151	.18513	.18520
Feb. 8. 15	0.08345	0.08356	0.00321		8.92287	5.8168	0.13148	0.3367	4.0207	.18539	.18527
Feb. 21. 15	0.08358	0.08366	0.00243		8.92346	5.8188	0.13119	0.3368	4.0167	.18520	.18526
Mar. 7. 15	0.08348	0.08360	0.00355		8.92302	5.8203	0.13099	0.3365	4.0178	.18525	.18521
Mar. 23. 13	0.08357	0.08370	0.00367		8.92353	5.8202	0.13098	0.3367	4.0154	.18514	.18525
Apr. 7. 15	0.08353	0.08362	0.00259		8.92321	5.8193	0.13113	0.3366	4.0175	.18524	.18520
Apr. 27. 15	0.08348	0.08357	0.00254		8.92294	5.8175	0.13141	0.3367	4.0201	.18536	.18588
May 6. 15	0.08352	0.08365	0.00395		8.92326	5.8177	0.13136	0.3368	4.0184	.18528	.18546
May 23. 15	0.08337	0.08353	0.00479		8.92257	5.8162	0.13171	0.3366	4.0232	.18550	.18525
June 8. 15	0.08339	0.08346	0.00203		8.92245	5.8115	0.13241	0.3368	4.0270	.18568	.18546
June 23. 15	0.08348	0.08355	0.00203		8.92288	5.8105	0.13251	0.3371	4.0255	.18561	.18560
July 8. 15	0.08349	0.08364	0.00440		8.92315	5.8202	0.13102	0.3366	4.0173	.18523	.18541
July 22. 15	0.08339	0.08349	0.00299		8.92249	5.8173	0.13150	0.3365	4.0226	.18547	.18527
Aug. 8. 15	0.08343	0.08354	0.00321		8.92273	5.8196	0.13115	0.3365	4.0199	.18535	.18524
Aug. 23. 13	0.08353	0.08362	0.00248		8.92320	5.8259	0.13023	0.3363	4.0134	.18505	.18535
Sept. 7. 16	0.08354	0.08366	0.00327		8.92334	5.8200	0.13105	0.3367	4.0166	.18520	.18523
Sept. 22. 15	0.08386	0.08395	0.00259		8.92494	5.8137	0.13201	0.3377	4.0136	.18506	.18541
Oct. 7. 16	0.08373	0.08383	0.00316		8.92427	5.8123	0.13224	0.3375	4.0178	.18525	.18517
Oct. 24. 15	0.08381	0.08390	0.00265		8.92464	5.8135	0.13200	0.3375	4.0149	.18512	.18532
Nov. 7. 15	0.08366	0.08381	0.00440	8.92406	5.8036	0.13346	0.3379	4.0244	.18556	.18517	
Nov. 24. 13	0.08379	0.08395	0.00451	8.92473	5.8109	0.13234	0.3377	4.0161	.18518	.18539	
Dec. 7. 13	0.08368	0.08379	0.00327	8.92405	5.8102	0.13247	0.3375	4.0199	.18535	.18524	
Dec. 22. 12	0.08379	0.08396	0.00491	8.92475	5.8131	0.13203	0.3376	4.0146	.18511	.18525	
Means	...	...	...	...	...	...	...	...	4.0185	.18529	.18532

The value of X in British Units is referred to the Foot-Grain-Second Unit.

MONTHLY MEAN DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS FROM HOURLY ORDINATES,
ON FIVE SELECTED DAYS, IN EACH MONTH.

Each result is the mean of the corresponding hourly ordinates from the photographic register, on five quiet days in each month, selected for comparison with results at other British Observatories. The days included are January 8, 11, 15, 16, 30, February 6, 10, 12, 13, 19, March 8, 12, 24, 25, 26, April 8, 10, 11, 15, 21, May 6, 8, 12, 21, 22, June 3, 5, 17, 18, 28, July 2, 13, 14, 18, 28, August 7, 8, 12, 16, 26, September 3, 4, 17, 18, 19, October 9, 15, 16, 17, 18, November 6, 12, 13, 14, 24, December 9, 11, 12, 17, 23.

The results for Declination are given in minutes of arc: those for Horizontal Force and Vertical Force are given both in terms of the whole Horizontal or Vertical Force and in terms of the C. G. S. Unit. The letter *f* indicates values in terms of the whole Horizontal or Vertical Force, and the letter *m* values in terms of the C. G. S. Unit, the unit for the former values being 00001 of the whole Horizontal or Vertical Force, and for the latter 000001 of the C. G. S. Unit. The values of the whole Horizontal and Vertical Forces expressed in terms of the C. G. S. Unit are 18532 and 43399 respectively for the year.

TABLE XX.—MONTHLY MEAN DIURNAL INEQUALITY OF MAGNETIC DECLINATION WEST.

(The results are in each case diminished by the smallest hourly value.)

1910.														
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.	
Midnight.	0'9	0'4	2'8	4'4	3'2	4'7	3'3	2'7	2'0	1'5	0'0	0'4	1'95	
1 ^h	1'4	0'9	2'8	4'3	3'5	4'4	3'2	2'7	2'1	1'8	0'7	1'1	2'17	
2	1'6	1'4	3'0	4'5	3'9	3'7	3'0	3'0	2'3	2'2	1'6	1'8	2'43	
3	1'9	1'3	3'1	4'1	3'6	3'6	3'0	3'1	1'8	2'0	1'2	1'6	2'28	
4	1'8	1'0	3'0	3'7	2'9	2'8	2'5	2'4	1'4	2'2	1'5	1'5	1'99	
5	1'9	1'1	2'5	3'4	0'9	1'1	1'4	1'6	1'2	1'9	1'6	1'5	1'43	
6	1'6	0'9	2'3	2'9	0'4	0'0	0'2	1'0	0'8	1'7	1'1	1'7	0'98	
7	1'3	0'5	1'5	1'4	0'2	0'0	0'0	0'3	0'2	1'2	0'7	1'7	0'51	
8	0'6	0'0	0'0	0'0	0'0	0'4	0'0	0'0	0'0	0'2	0'3	1'4	0'00	
9	0'0	0'1	0'2	0'6	1'0	2'1	0'7	0'9	1'3	0'0	0'1	1'1	0'44	
10	1'1	0'9	2'1	2'6	3'1	4'6	2'3	2'8	3'3	1'2	1'1	1'7	1'99	
11	2'2	2'6	4'9	5'1	5'2	6'8	4'4	5'2	5'8	3'7	3'4	2'7	4'09	
Noon.	3'3	3'5	7'6	8'1	7'3	8'8	5'8	7'4	8'2	5'7	4'7	3'6	5'93	
13 ^h	4'3	4'1	8'7	10'2	8'4	9'5	6'8	8'3	8'4	6'4	5'0	3'7	6'74	
14	4'0	3'7	8'4	9'9	8'0	9'7	6'8	8'7	7'2	6'2	4'4	3'2	6'44	
15	2'8	2'2	6'8	8'0	6'5	8'6	6'3	7'5	5'3	4'8	3'1	2'5	5'13	
16	2'2	1'5	4'9	6'3	5'6	7'2	5'9	5'9	3'4	3'4	2'6	2'2	4'02	
17	1'8	1'6	3'9	5'1	4'9	5'8	5'3	4'7	2'4	3'0	2'3	1'8	3'31	
18	1'8	1'4	3'7	4'7	4'1	5'2	5'0	3'8	2'5	2'5	2'1	1'4	2'94	
19	1'4	1'3	3'4	4'7	3'8	4'7	4'8	3'9	2'5	2'2	1'5	1'2	2'71	
20	1'0	0'7	3'0	4'7	3'9	4'8	4'6	3'7	2'3	1'9	0'5	0'9	2'43	
21	0'8	0'4	2'7	4'6	3'6	4'6	4'6	3'5	2'3	1'9	0'5	0'4	2'25	
22	0'6	0'4	2'4	4'4	3'3	4'4	4'2	3'4	2'0	1'9	0'7	0'0	2'07	
23	0'7	0'3	2'2	4'3	3'5	4'4	3'8	3'0	1'9	2'2	0'7	0'1	2'02	
24	0'9	0'6	2'3	4'1	3'4	4'2	3'1	2'6	2'2	2'4	0'8	0'6	2'03	
Means	0 ^h -23 ^h	1'71	1'34	3'58	4'67	3'78	4'66	3'66	3'73	2'94	2'57	1'73	1'63	2'76
	1 ^h -24 ^h	1'71	1'35	3'56	4'65	3'79	4'64	3'65	3'73	2'95	2'61	1'76	1'64	2'76

TABLE XXI.—MONTHLY MEAN DIURNAL INEQUALITY OF HORIZONTAL MAGNETIC FORCE.

(The results are corrected for temperature, and in each case diminished by the smallest hourly value.)

1910.

Hour, Green- wich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		For the Year.	
	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m
Midn.	62	115	54	100	148	274	192	356	118	219	164	304	114	211	148	274	166	308	125	232	68	126	40	74	109.8	203.4
1 ^h	66	122	60	111	146	271	173	321	114	211	156	289	112	208	149	276	165	306	111	206	68	126	42	78	106.7	197.7
2	68	126	68	126	139	258	167	309	118	219	143	265	105	195	137	254	169	313	105	195	66	122	36	67	103.3	191.4
3	78	145	68	126	135	250	180	334	109	202	151	280	111	206	147	272	160	297	111	206	83	154	46	85	108.1	200.4
4	85	158	86	159	142	263	175	324	107	198	152	282	109	202	147	272	150	278	117	217	91	169	63	117	111.9	207.2
5	93	172	86	159	142	263	175	324	100	185	164	304	108	200	138	256	124	230	125	232	93	172	69	128	111.3	206.0
6	91	169	91	169	138	256	170	315	94	174	126	234	88	163	136	252	111	206	123	228	107	198	74	137	105.6	195.7
7	93	172	83	154	117	217	148	274	76	141	91	169	56	104	98	182	83	154	116	215	105	195	70	130	87.9	162.9
8	77	143	67	124	87	161	115	213	44	82	56	104	50	93	50	93	32	59	88	163	83	154	63	117	60.9	112.8
9	34	63	38	70	39	72	53	98	20	37	20	37	24	44	6	11	0	0	32	59	37	69	47	87	22.4	41.2
10	8	15	16	30	3	6	3	6	0	0	0	0	4	7	0	0	16	30	6	11	7	13	19	35	0.0	0.0
11	0	0	0	0	0	0	0	0	4	7	9	17	0	0	14	26	48	89	0	0	0	0	11	20	0.4	0.5
Noon.	10	19	4	7	26	48	32	59	42	78	27	50	2	4	43	80	86	159	32	59	24	44	11	20	21.5	39.5
13 ^h	41	76	45	83	60	111	77	143	81	150	74	137	42	78	81	150	113	209	67	124	46	85	0	0	53.8	99.5
14	50	93	61	113	83	154	113	209	108	200	116	215	73	135	98	182	114	211	78	145	63	117	4	7	73.3	135.7
15	60	111	60	111	109	202	148	274	115	213	143	265	107	198	130	241	120	222	94	174	72	133	24	44	91.7	169.6
16	54	100	56	104	119	221	176	326	140	259	156	289	119	221	160	297	124	230	102	189	73	135	40	74	103.1	191.0
17	63	117	54	100	119	221	189	350	162	300	186	345	137	254	178	330	144	267	121	224	73	135	49	91	116.1	215.1
18	67	124	64	119	141	261	200	371	159	295	214	397	172	319	182	337	152	282	135	250	76	141	50	93	127.5	236.4
19	58	107	71	132	157	291	204	378	163	302	228	423	181	335	196	363	165	306	145	269	75	139	58	107	134.9	250.0
20	58	107	53	98	153	284	216	400	167	309	226	419	199	369	196	363	167	309	150	278	93	172	66	122	138.5	256.5
21	54	100	57	106	139	258	216	400	162	300	217	402	197	365	204	378	159	295	148	274	113	209	61	113	137.1	254.0
22	48	89	63	117	147	272	215	398	152	282	191	354	199	369	196	363	159	295	157	291	115	213	68	126	135.7	251.4
23	44	82	80	148	139	258	218	404	152	282	181	335	199	369	188	348	159	295	155	287	111	206	72	133	134.7	249.5
24	48	89	91	169	147	272	228	423	154	285	173	321	193	358	188	348	158	293	153	284	110	204	75	139	136.4	252.7
Means. 0 ^h -23 ^h	56.7	105.2	57.7	106.9	109.5	203.0	148.1	274.4	104.5	193.5	133.0	246.5	104.5	193.7	125.9	233.3	120.3	222.9	101.8	188.7	72.6	134.5	45.1	83.5	91.5	169.5
1 ^h -24 ^h	56.2	104.1	59.2	109.8	109.5	202.9	149.6	277.2	106.0	196.3	133.3	247.2	107.8	199.8	127.6	236.4	119.9	222.3	103.0	190.8	74.3	137.7	46.6	86.2	92.6	171.5

TABLE XXII.—MONTHLY MEAN DIURNAL INEQUALITY OF VERTICAL MAGNETIC FORCE.

(The results are corrected for temperature, and in each case diminished by the smallest hourly value.)

1910.

Hour, Green- wich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		For the Year.	
	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m
Midn.	12	52	16	69	40	174	52	226	72	312	58	252	46	200	40	174	37	161	22	95	10	43	16	69	33.6	145.7
1 ^h	4	17	14	61	29	126	52	226	62	269	56	243	44	191	36	156	35	152	18	78	6	26	8	35	28.8	125.1
2	4	17	6	26	28	122	54	234	62	269	58	252	38	165	34	148	37	161	18	78	4	17	4	17	27.4	118.9
3	6	26	8	35	36	156	54	234	60	260	54	234	42	182	30	130	35	152	18	78	4	17	2	9	27.6	119.5
4	8	35	8	35	32	139	54	234	62	269	54	234	46	200	34	148	29	126	20	87	4	17	2	9	27.9	121.1
5	6	26	8	35	32	139	54	234	64	278	60	260	50	217	38	165	35	152	20	87	4	17	6	26	29.9	129.7
6	8	35	10	43	30	130	56	243	60	260	58	252	46	200	38	165	37	161	22	95	0	0	2	9	29.1	126.2
7	6	26	12	52	30	130	59	256	60	260	57	247	48	208	40	174	37	161	24	104	2	9	6	26	30.3	131.1
8	10	43	14	61	28	122	57	247	54	234	53	230	44	191	36	156	31	135	26	113	4	17	0	0	28.2	122.5
9	11	48	10	43	20	87	49	213	48	208	43	187	34	148	36	156	24	104	20	87	2	9	0	0	23.3	100.9
10	9	39	8	35	8	35	37	161	34	148	25	108	28	122	22	95	10	43	12	52	0	0	2	9	14.7	64.0
11	9	39	2	9	0	0	18	78	16	69	8	35	10	43	12	52	2	9	2	9	8	35	6	26	6.3	27.1
Noon.	0	0	0	0	2	9	0	0	0	0	0	0	8	35	0	0	0	0	0	0	8	35	0	0	0.0	0.0
1 ³ ^h	0	0	9	39	6	26	0	0	6	26	8	35	0	0	4	17	9	39	4	17	10	43	2	9	3.3	14.3
14	6	26	9	39	20	87	26	113	25	108	14	61	4	17	14	61	25	108	14	61	16	69	8	35	13.6	58.8
15	14	61	17	74	29	126	38	165	31	135	20	87	16	69	30	130	33	143	22	95	18	78	18	78	22.3	96.8
16	12	52	19	82	39	169	46	200	51	221	37	161	26	113	40	174	33	143	26	113	17	74	16	69	28.7	124.3
17	18	78	13	56	37	161	50	217	63	273	45	195	38	165	44	191	35	152	22	95	19	82	18	78	32.0	138.7
18	16	69	19	82	35	152	48	208	71	308	51	221	42	182	42	182	31	135	20	87	15	65	18	78	32.5	140.8
19	18	78	15	65	36	156	48	208	68	295	49	213	40	174	42	182	29	126	14	61	19	82	20	87	31.7	137.3
20	12	52	19	82	38	165	49	213	68	295	49	213	42	182	42	182	35	152	16	69	21	91	20	87	32.7	142.0
21	12	52	19	82	36	156	52	226	70	304	49	213	42	182	38	165	33	143	14	61	19	82	20	87	32.2	139.5
22	8	35	21	91	40	174	49	213	70	304	52	226	38	165	38	165	33	143	12	52	17	74	16	69	31.3	136.0
23	10	43	19	82	36	156	50	217	68	295	49	213	42	182	34	148	35	152	12	52	17	74	10	43	30.3	131.5
24	14	61	17	74	42	182	50	217	64	278	52	226	40	174	36	156	33	143	16	69	15	65	8	35	30.8	133.4
Means 0 ^h -2 ³ ^h	9.1	39.5	12.3	53.3	27.8	120.7	43.8	190.2	51.9	225.0	42.0	182.2	33.9	147.2	31.8	138.2	28.3	123.0	16.6	71.9	10.2	44.0	9.2	39.8	24.9	108.0
1 ^h -24 ^h	9.2	39.9	12.3	53.5	27.9	121.0	43.8	189.9	51.5	223.6	41.7	181.1	33.7	146.1	31.7	137.4	28.2	122.3	16.3	70.8	10.4	44.9	8.8	38.4	24.8	107.5

ROYAL OBSERVATORY, GREENWICH.

MAGNETIC DISTURBANCES.

1910.

MAGNETIC DISTURBANCES in DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE,
recorded at the ROYAL OBSERVATORY, GREENWICH, in the Year 1910.

The following notes give a brief description of all magnetic movements (superposed on the ordinary diurnal movement) exceeding 3' in Declination, 0.0010 in Horizontal Force, or 0.0003 in Vertical Force, as taken from the photographic records of the respective Magnetometers. The movements in Horizontal and Vertical Force are expressed in parts of the whole Horizontal and Vertical Forces respectively. When any one of the three elements is not specifically mentioned, it is to be understood that the movement, if any, was insignificant. Any failure or want of register is specially indicated.

The term "wave" is used to indicate a movement in one direction and return; "double wave" a movement in one direction and return with continuation in the opposite direction and return; "two successive waves" consecutive wave movements in the same direction; "fluctuations" a number of movements in both directions. The extent and direction of the movement are indicated in brackets, + denoting an increase, and - a decrease of the magnetic element. In the case of fluctuations the sign \pm denotes positive and negative movements of generally equal extent.

Magnetic movements which do not admit of brief description in this way are exhibited on accompanying plates.

The time is Greenwich Civil Time (commencing at midnight, and counting the hours from 0 to 24).

1910.

- January 1^d 0^h to 3³/₄^h Flat-crested wave in H.F. (- .0020). 3³/₄^h to 5¹/₄^h Wave in Dec. (- 7'). 6^h to 9¹/₂^h Loss of H.F. register. 18³/₄^h to 20¹/₂^h Wave in H.F. (- .0010). 22³/₄^h to 23¹/₄^h Wave in Dec. (+ 3').
- 4^d 13^h to 14¹/₂^h Wave in H.F. (- .0010).
- 5^d 21¹/₂^h to 22¹/₄^h Wave in H.F. (- .0010). 22³/₄^h to 23¹/₄^h Wave in H.F. (+ .0013). 23^h to 24^h Wave in Dec. (- 3').
- 6^d 21¹/₂^h to 22¹/₄^h Wave in H.F. (- .0010).
- 12^d 9^h to 13^d 15^h Loss of Dec. and H.F. register.
- 13^d 0^h to 6¹/₂^h Decrease in V.F. (- .0004).
- 17^d 12^h to 14^h Irregular flat-crested wave in H.F. (- .0020), with small superposed fluctuations. 15^h to 17^h Very sharp fluctuations in H.F. 16¹/₂^h to 16³/₄^h Sharp wave in Dec. (+ 3'), followed till 18^h by a double wave (+ 3' to - 3'). 17³/₄^h to 20^h Wave in H.F. (- .0048), steep at commencement, with small waves superposed on second portion. 18^h to 19¹/₂^h Wave in Dec. (- 7'). 18¹/₄^h to 20^h Wave in V.F. (+ .0008).
- 18^d 23³/₄^h to 19^d 0¹/₂^h Wave in H.F. (+ .0010).
- 19^d 0^h to 2^h Double wave in Dec. (- 4' to + 5').
- 21^d 20^h to 22^h Irregular double-crested wave in Dec. (- 5'). 20¹/₄^h to 21^h Wave in H.F. (+ .0016).
- 22^d 0^h to 2³/₄^h Irregular double wave in H.F. (+ .0014 to - .0014), the first portion double-crested. 0^h to 1^h Decrease in V.F. (- .0005). 0¹/₄^h to 4¹/₂^h Irregular wave in Dec. (- 9'), with small waves superposed. 19³/₄^h to 21^h Very sharp fluctuations in H.F., followed till 24^h by an irregular triple-crested wave (- .0035), steep at both ends. 22^d 20^h to 23^d 0³/₄^h Irregular double-crested wave in Dec. (- 13'), with smaller waves superposed.
- 23^d 19³/₄^h to 21^h Wave in H.F. (- .0010). 23^d 23³/₄^h to 24^d 2^h Triple wave in Dec. (+ 5', - 3', + 3').
- 24^d 1³/₄^h to 4¹/₄^h Two successive irregular waves in H.F. (- .0011 and - .0017). 3¹/₂^h to 4¹/₂^h Wave in Dec. (+ 7'). 15³/₄^h to 16³/₄^h Wave in H.F. (- .0019), with small sharp fluctuations before and after. 16^h to 17³/₄^h Wave in Dec. (- 9'), with small waves superposed. 18³/₄^h to 19^h Sharp decrease in Dec. (- 7'). 18³/₄^h to 20^h Double wave in H.F. (+ .0011 to - .0010), immediately followed till 21^h by another (- .0022 to + .0017), the first portion very steep. 20^h to 21³/₄^h Very steep double-crested wave in Dec. (- 11'). 20^h to 20³/₄^h Wave in V.F. (+ .0004).

1910.

- January 25^d 6^h to 7^h $\frac{1}{4}$ Wave in H.F. (+0011). 8^h $\frac{3}{4}$ to 10^h Wave in Dec. (-3'). 12^h $\frac{1}{2}$ to 13^h $\frac{1}{2}$ Two successive waves in H.F. (+0010 and +0010). 12^h $\frac{3}{4}$ to 14^h $\frac{1}{4}$ Two successive waves in Dec. (-3' and -3'). 14^h $\frac{3}{4}$ to 17^h Irregular triple wave in Dec. (+3', -8', +3'). 15^h $\frac{1}{4}$ to 15^h $\frac{3}{4}$ Wave in H.F. (-0022). 16^h $\frac{1}{4}$ Sharp decrease in H.F. (-0017). 17^h to 18^h $\frac{1}{2}$ Triple wave in H.F. (+0012, -0018, +0012). 17^h $\frac{3}{4}$ to 18^h $\frac{1}{4}$ Sharp wave in Dec. (-11'). 19^h to 19^h $\frac{3}{4}$ Wave in Dec. (+6'). 19^h $\frac{1}{4}$ to 21^h $\frac{1}{2}$ Two successive irregular waves in H.F. (-0021 and -0013). 22^h $\frac{1}{4}$ to 23^h $\frac{1}{2}$ Flat-crested wave in Dec. (-5'). 25^d 22^h $\frac{3}{4}$ to 26^d 0^h $\frac{1}{4}$ Irregular wave in H.F. (+0030). 25^d 23^h $\frac{3}{4}$ to 26^d 1^h $\frac{1}{4}$ Wave in Dec. (-3').
- 26^d 3^h $\frac{1}{2}$ to 4^h Wave in Dec. (+3'). 9^h $\frac{1}{2}$ to 13^h Three successive waves in Dec. (+5', +5', +4'). 17^h $\frac{1}{2}$ to 18^h $\frac{3}{4}$ Flat-crested wave in Dec. (-4'). 17^h $\frac{3}{4}$ to 19^h $\frac{1}{4}$ Wave in H.F. (+0014). 19^h to 21^h $\frac{1}{2}$ Triple-crested wave in Dec. (-9'), followed till 23^h by a slow wave (-3'). 19^h $\frac{1}{4}$ to 21^h $\frac{1}{2}$ Irregular triple-crested wave in H.F. (+0027).
- 27^d 0^h $\frac{1}{4}$ to 1^h $\frac{3}{4}$ Wave in H.F. (+0015). 17^h $\frac{1}{2}$ to 18^h $\frac{1}{2}$ Wave in Dec. (-3'). 21^h $\frac{3}{4}$ to 22^h $\frac{1}{4}$ Wave in Dec. (-3').
- 28^d 16^h $\frac{1}{4}$ to 17^h $\frac{1}{2}$ Wave in H.F. (-0010).
- 29^d 23^h to 30^d 0^h $\frac{1}{2}$ Wave in H.F. (+0013).
- 31^d 12^h to 17^h $\frac{1}{2}$ Loss of H.F. register.
- February 2^d 14^h $\frac{1}{4}$ to 16^h Double wave in H.F. (-0012 to +0010), the first portion flat-crested. 15^h $\frac{1}{4}$ to 16^h $\frac{1}{2}$ Irregular double wave in Dec. (-3' to +3'). 19^h to 20^h $\frac{1}{2}$ Double wave in H.F. (-0012 to +0010). 19^h $\frac{1}{4}$ to 21^h Wave in Dec. (-7').
- 3^d 16^h to 17^h $\frac{1}{4}$ Flat-crested wave in H.F. (-0012). 20^h $\frac{3}{4}$ to 21^h $\frac{3}{4}$ Sharp wave in Dec. (-8'), followed till 23^h $\frac{1}{2}$ by an irregular wave (-6'). 20^h $\frac{3}{4}$ to 22^h Wave in H.F. (+0024).
- 4^d 17^h $\frac{1}{2}$ to 18^h Decrease in Dec. (-5'). 17^h $\frac{1}{2}$ to 18^h $\frac{3}{4}$ Wave in H.F. (-0011). 19^h $\frac{3}{4}$ to 21^h Wave in H.F. (+0011), followed till 23^h by a double wave (+0016 to -0012). 20^h $\frac{3}{4}$ to 23^h $\frac{3}{4}$ Truncated wave in Dec. (-14').
- 5^d 22^h $\frac{1}{4}$ to 23^h Wave in Dec. (-3').
- 11^d 19^h $\frac{1}{2}$ to 20^h $\frac{1}{2}$ Wave in Dec. (-4'). 21^h $\frac{1}{2}$ to 22^h $\frac{1}{2}$ Wave in Dec. (-4').
- 14^d 14^h $\frac{1}{4}$ to 15^h $\frac{1}{4}$ Wave in Dec. (+4'). 14^h $\frac{1}{2}$ to 16^h Wave in H.F. (-0018), steep at commencement. 18^h $\frac{1}{4}$ to 18^h $\frac{3}{4}$ Very sharp triple wave in H.F. (+0014, -0013, +0014), followed by very sharp fluctuations till 21^h: fluctuations also in Dec.
- 15^d 22^h $\frac{1}{2}$ to 23^h $\frac{1}{2}$ Waves in Dec. (-5') and H.F. (+0012).
- 16^d 21^h $\frac{1}{2}$ to 22^h $\frac{1}{2}$ Wave in Dec. (-4').
- 17^d 1^h $\frac{1}{2}$ to 2^h $\frac{1}{2}$ Wave in Dec. (+4'). 17^h $\frac{1}{4}$ to 19^h Very steep wave in Dec. (-19'): double wave in H.F. (-0015 to +0015). 21^h $\frac{3}{4}$ to 22^h $\frac{1}{2}$ Decrease in Dec. (-6'). 22^h to 22^h $\frac{1}{2}$ Wave in H.F. (+0010). 22^h $\frac{3}{4}$ to 23^h $\frac{3}{4}$ Irregular wave in Dec. (-5'), followed till 18^d 1^h $\frac{3}{4}$ by a flat-crested wave (-5'). 17^d 22^h $\frac{3}{4}$ to 18^d 0^h $\frac{3}{4}$ Sharp wave in H.F. (+0048).
- 18^d 15^h $\frac{1}{2}$ to 16^h $\frac{1}{4}$ Wave in H.F. (-0010): in Dec. small.
- 20^d 14^h $\frac{1}{2}$ to 17^h $\frac{1}{2}$ Irregular wave in H.F. (-0043). 15^h $\frac{1}{4}$ to 15^h $\frac{3}{4}$ Decrease in Dec. (-7'). 18^h $\frac{1}{2}$ to 20^h Irregular double wave in H.F. (+0010 to -0014). 19^h to 21^h Irregular wave in Dec. (-10'), steep at commencement. 19^h $\frac{1}{4}$ to 19^h $\frac{3}{4}$ Increase in V.F. (+0005). 21^h $\frac{3}{4}$ to 22^h $\frac{3}{4}$ Waves in Dec. (+4') and H.F. (+0025), both steep at commencement. 20^d 23^h $\frac{1}{2}$ to 21^d 0^h $\frac{1}{4}$ Irregular wave in H.F. (-0012): in Dec. small.
- 21^d 8^h to 8^h $\frac{1}{2}$ Decrease in H.F. (-0016). 17^h to 18^h Wave in H.F. (-0015). 17^h $\frac{1}{4}$ to 18^h $\frac{3}{4}$ Wave in Dec. (-10'). 22^h to 24^h Irregular double-crested wave in H.F. (+0019). 21^d 22^h $\frac{1}{4}$ to 22^d 0^h $\frac{1}{4}$ Two successive waves in Dec. (-5' and -4'), both steep at commencement.
- 22^d 20^h $\frac{1}{4}$ to 21^h $\frac{3}{4}$ Wave in H.F. (+0012). 21^h $\frac{1}{4}$ to 21^h $\frac{3}{4}$ Decrease in Dec. (-4').
- 23^d 2^h to 3^h $\frac{1}{2}$ Wave in Dec. (+5').
- 24^d 11^h $\frac{1}{2}$ to 13^h Wave in H.F. (-0018). 11^h $\frac{3}{4}$ to 12^h $\frac{1}{2}$ Wave in Dec. (-3'). 15^h $\frac{3}{4}$ to 16^h $\frac{1}{4}$ Decrease in H.F. (-0010). 16^h to 17^h $\frac{1}{4}$ Wave in Dec. (-3').
- 25^d 14^h to 14^h $\frac{1}{2}$ Wave in Dec. (-3'). 14^h to 16^h $\frac{1}{4}$ Double wave in H.F. (+0013 to -0013), the first portion triple-crested. 15^h to 16^h $\frac{3}{4}$ Double wave in Dec. (+4' to -4'). 16^h $\frac{3}{4}$ to 19^h Irregular double wave in H.F. (+0015 to -0015), the first portion double-crested. 17^h $\frac{1}{4}$ to 18^h $\frac{3}{4}$ Three successive waves in Dec. (-4', -3', -4').
- 26^d 19^h to 20^h Irregular wave in Dec. (-3').
- 27^d 18^h $\frac{3}{4}$ to 20^h Wave in Dec. (-7'); steep at commencement.
- 28^d 4^h to 5^h $\frac{1}{4}$ Wave in Dec. (+3'). 21^h $\frac{1}{4}$ to 23^h Double wave in Dec. (+3' to -7'), the intermediate portion steep. 21^h $\frac{3}{4}$ to 22^h $\frac{1}{2}$ Wave in H.F. (+0012).

- 1910.
- March
- 1^d 2^h to 3^h Wave in Dec. (- 3'). 18^h to 18^h Decrease in Dec. (- 4').
- 2^d 0^h to 1^h Wave in Dec. (- 3'). 19^h to 20^h Wave in Dec. (- 6').
- 3^d 19^h to 21^h Double-crested wave in Dec. (- 4').
- 4^d 19^h to 20^h Wave in H.F. (- .0018), immediately followed by a sharp decrease (- .0020). 19^h to 21^h Wave in Dec. (- 16'), steep at commencement, with small waves superposed on the return. 20^h to 22^h Irregular wave in H.F. (- .0020).
- 5^d 1^h to 2^h Double wave in Dec. (+ 3' to - 3'): wave in H.F. (+ .0011). 8^h to 9^h Wave in H.F. (- .0011). 16^h to 18^h Wave in H.F. (- .0017). 18^h to 19^h Wave in Dec. (- 5').
- 6^d 0^h to 1^h Wave in Dec. (+ 6'). 0^h to 2^h Wave in H.F. (+ .0018). 0^h to 1^h Decrease in V.F. (- .0004). 16^h to 18^h Two successive flat-crested waves in H.F. (- .0014 and - .0012). 18^h to 19^h Wave in Dec. (- 4'). 19^h to 19^h Wave in Dec. (- 5'), followed till 21^h by a triple-crested wave (- 6'). 19^h to 20^h Sharp triple wave in H.F. (- .0010, + .0022, - .0010), followed till 21^h by a double wave (- .0014 to + .0018). 21^h to 21^h Sharp decrease in Dec. (- 4'), immediately followed till 22^h by a sharp irregular wave (+ 8'). 21^h to 21^h Decrease in V.F. (- .0003). 22^h to 23^h Irregular double-crested wave in H.F. (- .0018). 6^d 23^h to 7^d 1^h Two successive waves in Dec. (- 5' and - 5').
- 7^d 2^h to 5^h Irregular slow wave in Dec. (+ 6'). 5^h to 7^h Slow wave in H.F. (- .0012). 15^h to 16^h Wave in H.F. (- .0015). 16^h to 17^h Slow wave in Dec. (- 5'). 19^h to 20^h Sharp wave in Dec. (- 3'): small sharp double wave in H.F.
- 9^d 23^h to 23^h Sharp decrease in Dec. (- 4').
- 10^d 20^h to 20^h Wave in Dec. (- 7'), steep at commencement. 20^h to 21^h Sharp wave in H.F. (+ .0011). 21^h to 22^h Wave in Dec. (- 3'). 23^h to 24^h Irregular wave in Dec. (+ 3').
- 11^d 22^h to 22^h Wave in Dec. (+ 3'). 11^d 23^h to 12^d 0^h Waves in Dec. (- 3') and H.F. (+ .0010).
- 13^d 11^h Sharp increase in H.F. (+ .0010). 15^h Sharp decrease in Dec. (- 4') and H.F. (- .0015).
- 14^d 0^h to 2^h Double wave in Dec. (+ 3' to - 4'). 0^h to 2^h Wave in H.F. (+ .0022). 1^h to 2^h Wave in V.F. (- .0004). 4^h to 5^h Waves in Dec. (- 4') and H.F. (+ .0011). 17^h to 18^h Flat-crested wave in H.F. (- .0011), with small sharp wave superposed at 18^h (- .0005). 14^d 23^h to 15^d 0^h Wave in Dec. (- 4'): in H.F. small.
- 15^d 18^h to 17^d 15^h Loss of Dec. and H.F. registers.
- 17^d 21^h to 22^h Sharp wave in Dec. (- 21'): wave in H.F. (+ .0018): in V.F. small.
- 19^d 23^h to 24^h Wave in H.F. (+ .0019). 19^d 23^h to 20^d 0^h Flat-crested wave in Dec. (- 3').
- 20^d 15^h to 15^h Sharp decrease in Dec. (- 5'). 15^h to 16^h Wave in H.F. (- .0014). 17^h to 18^h Irregular decrease in Dec. (- 6'). 20^d 22^h to 21^d 1^h Quadruple wave in Dec. (+ 3', - 4', + 5', - 3'), followed till 1^h by a sharp increase (+ 7').
- 21^d 0^h to 3^h Triple wave in H.F. (+ .0009, - .0009, + .0012). 18^h to 19^h Wave in H.F. (- .0013). 18^h to 19^h Wave in Dec. (- 8'), steep at commencement.
- 22^d 0^h to 2^h Wave in Dec. (+ 4'). 21^h to 23^h Two successive waves in Dec. (- 6' and - 4').
- 27^d 2^h to 6^h Slow double wave in Dec. (- 6' to + 4').
- 27^d 12^h to 29^d 12^h. See Plate I.
- 29^d 15^h to 17^h Wave in Dec. (- 6'). 15^h to 16^h Double-crested wave in H.F. (- .0012).
- 30^d 19^h to 20^h Double-crested wave in Dec. (- 3'): small waves in H.F. 21^h to 22^h Two successive waves in Dec. (- 4' and - 5') and H.F. (+ .0013 and + .0015). 22^h to 22^h Irregular decrease in Dec. (- 5'), followed till 24^h by a double-crested wave (+ 8'). 22^h to 23^h Irregular double-crested wave in H.F. (+ .0033): decrease in V.F. (- .0009). 23^h to 23^h Increase in H.F. (+ .0013).
- 31^d 0^h to 1^h Irregular double-crested wave in Dec. (- 4'), followed till 5^h by an irregular triple wave (- 6', + 9', - 5'). 0^h to 5^h Irregular quadruple wave in H.F. (- .0010, + .0014, - .0015, + .0017). 1^h to 1^h Decrease in V.F. (- .0004). 2^h to 5^h Two successive waves in V.F. (- .0003 and - .0004). 5^h to 7^h Wave in H.F. (- .0018). 6^h to 7^h Wave in Dec. (+ 3'). 13^h to 14^h Wave in H.F. (- .0020). 13^h to 14^h Wave in Dec. (- 3'). 14^h to 15^h Increase in V.F. (+ .0010), followed till 16^h by a wave (+ .0010), steep at commencement. 14^h to 15^h Wave in Dec. (- 3'). 15^h to 15^h Sharp decrease in Dec. (- 11'), and sharp increase (+ 6'), immediately followed till 15^h by another sharp decrease (- 18'), and increase (+ 5'), the increase continuing more slowly and irregularly till 5^h (+ 10'). 15^h to 16^h Very sharp double wave in H.F. (- .0020 to + .0022), followed by a wave (+ .0027), steep at commencement. 16^h to 18^h Double-crested wave in H.F. (- .0014). 19^h to 19^h Wave in Dec. (- 4'), followed till 20^h by a decrease (- 3'). 20^h to 21^h Quadruple wave in Dec. (+ 4' - 3', + 4', - 5'), followed till 22^h by a wave (- 8'). 20^h to 21^h Two successive waves in H.F. (+ .0018 and + .0031), followed till 22^h by a double wave (+ .0010 to - .0014). 20^h to 21^h Irregular decrease in V.F. (- .0011). 22^h to 23^h Wave in H.F. (- .0013). March 31^d 22^h to April 1^d 0^h Double-crested wave in Dec. (- 8'), followed till 1^h by a decrease (- 5').

1910.

April

- 1^d 0^h to 3^h Irregular triple wave in H.F. (+ '0011, - '0012, + '0010), followed till 6^h by a slow irregular wave (+ '0020). 1^h to 3^h Irregular flat-crested wave in Dec. (+ 8'). 1^h to 3^h Truncated wave in V.F. (- '0007). 5^h to 8^h Irregular wave in Dec. (+ 5'). 11^h to 13^h Double-crested wave in H.F. (- '0032), very steep at commencement. 17^h to 19^h Irregular triple-crested wave in Dec. (- 5'), followed till 21^h by a double-crested wave (- 6'). 19^h to 20^h Increase in H.F. (+ '0014), followed till 22^h by a triple wave (- '0013, + '0024, - '0016). 21^h to 22^h Wave in Dec. (- 4').
- 2^d 0^h to 2^h Irregular double wave in Dec. (- 4' to + 8'). 1^h to 3^h Irregular double wave in H.F. (- '0018 to + '0022). 1^h to 3^h Wave in V.F. (- '0005). 4^h to 5^h Wave in H.F. (- '0010). 12^h to 13^h Wave in H.F. (- '0013). 15^h to 16^h Double wave in H.F. (- '0014 to + '0010), followed till 18^h by two successive waves (+ '0014 and + '0013). 16^h to 16^h Wave in Dec. (- 3'), followed till 18^h by an irregular wave (- 7'). 18^h to 20^h Triple-crested wave in Dec. (- 12'), the first crest steep. 19^h Sharp increase in H.F. (+ '0015), continued till 19^h by two successive waves (+ '0015 and + '0011). 20^h to 22^h Irregular triple wave in Dec. (- 3', + 3', - 4'). 21^h to 22^h Triple-crested wave in H.F. (+ '0022). 21^h to 22^h Irregular decrease in V.F. (- '0005).
- 3^d 12^h to 13^h Wave in H.F. (- '0013).
- 4^d 2^h to 3^h Wave in Dec. (+ 8'): in H.F. small. 2^h to 3^h Decrease in V.F. (- '0004). 13^h to 14^h Wave in H.F. (- '0013). 15^h to 16^h Double wave in H.F. (- '0013 to + '0015). 16^h to 17^h Truncated wave in Dec. (- 8'). 18^h to 20^h Irregular wave in H.F. (+ '0015). 18^h to 20^h Wave in Dec. (- 6'). 22^h to 24^h Double-crested wave in Dec. (+ 4').
- 5^d 1^h to 2^h Wave in Dec. (- 3'). 20^h to 21^h Decrease in Dec. (- 3'). 5^d 23^h to 6^d 0^h Wave in H.F. (+ '0015). 5^d 23^h to 6^d 1^h Two successive waves in Dec. (+ 3' and + 3').
- 9^d 1^h to 2^h Wave in Dec. (- 3'): in H.F. small.
- 12^d 0^h to 0^h Wave in Dec. (+ 4'). 0^h to 1^h Wave in H.F. (+ '0015). 0^h to 0^h Decrease in V.F. (- '0003). 6^h to 7^h Wave in Dec. (+ 4'). 6^h to 6^h Increase in H.F. (+ '0011). 12^h to 12^h Sharp double-crested wave in H.F. (+ '0010): in Dec. small. 14^h to 15^h Wave in H.F. (+ '0011). 17^h to 18^h Double-crested wave in H.F. (+ '0012). 22^h to 23^h Wave in H.F. (+ '0014). 22^h to 23^h Wave in Dec. (- 4'). 12^d 23^h to 13^d 0^h Irregular wave in H.F. (+ '0013). 12^d 23^h to 13^d 1^h Wave in Dec. (- 4').
- 13^d 22^h to 22^h Wave in H.F. (+ '0013): in Dec. small.
- 16^d 18^h to 19^h Wave in Dec. (- 4').
- 17^d 2^h to 4^h Double wave in Dec. (+ 2' to - 3'). 4^h to 6^h Wave in Dec. (- 5'). 6^h to 7^h Wave in H.F. (- '0012).
- 18^d 2^h to 3^h Wave in Dec. (+ 3'), followed till 5^h by an irregular triple-crested wave (+ 18'), steep at end. 4^h to 4^h Decrease in H.F. (- '0025), followed till 5^h by an irregular increase (+ '0011), again followed till 5^h by a decrease (- '0029). 4^h to 8^h Irregular wave in V.F. (- '0010). 5^h to 6^h Increase in Dec. (+ 3'). 8^h to 9^h Wave in Dec. (- 5'), with small superposed fluctuations. 14^h to 15^h Irregular wave in H.F. (- '0022), continued till 15^h by an increase (+ '0021). 16^h to 17^h Wave in H.F. (+ '0017). 17^h to 19^h Wave in H.F. (+ '0016). 18^h to 20^h Wave in Dec. (- 4'), followed till 21^h by an irregular double-crested wave (- 8'). 20^h to 20^h Double-crested wave in H.F. (+ '0014).
- 19^d 1^h to 3^h Wave in Dec. (+ 5'). 4^h to 6^h Wave in H.F. (- '0015).
- 20^d 0^h to 2^h Wave in Dec. (+ 3').
- 22^d 2^h to 2^h Wave in H.F. (+ '0010).
- 23^d 10^h to 12^h Wave in H.F. (- '0013). 13^h to 14^h Wave in H.F. (- '0017). 16^h to 18^h Wave in Dec. (- 8'). 16^h to 18^h Wave in H.F. (+ '0023). 21^h to 23^h Triple wave in Dec. (- 14', + 7', - 4'). 22^h to 23^h Double wave in V.F. (+ '0003 to - '0003). 22^h to 23^h Decrease in H.F. (- '0016).
- 24^d 7^h to 8^h Wave in H.F. (- '0011).
- 25^d 0^h to 1^h Wave in Dec. (+ 4'). 0^h to 2^h Flat-crested wave in H.F. (+ '0015). 0^h to 2^h Decrease in V.F. (- '0006). 1^h to 3^h Wave in Dec. (- 6').
- 26^d 22^h to 24^h Irregular wave in H.F. (+ '0016).
- 27^d 4^h to 7^h Irregular wave in Dec. (+ 13'), with superposed fluctuations. 4^h to 6^h Irregular decrease in V.F. (- '0009). 5^h to 7^h Irregular flat-crested wave in H.F. (- '0045), with superposed small fluctuations. 9^h to 10^h Decrease in H.F. (- '0028). 10^h to 11^h Two successive sharp waves in H.F. (+ '0016 and + '0016). 11^h to 12^h Irregular increase in Dec. (+ 5'). 12^h to 12^h Increase in H.F. (+ '0024), with superposed fluctuations. 12^h to 14^h Increase in V.F. (+ '0015), continued till 15^h by a sharper increase (+ '0007). 12^h to 13^h Wave in Dec. (+ 5'). 12^h to 13^h Wave in H.F. (- '0010), followed till 14^h by an irregular wave (- '0014). 13^h to 14^h Irregular increase in Dec. (+ 6'). 14^h to 14^h Decrease in H.F. (- '0015), followed till 15^h by a double wave (- '0008 to + '0012). 14^h to 15^h Sharp double wave in Dec. (+ 4' to - 8'). 15^h to 16^h Two successive sharp waves in H.F.

1910.

April

- (+ .0022 and + .0026). 15^h to 17^h Two successive irregular flat-crested waves in Dec. (- 7' and - 5'), the first with sharp superposed fluctuations. 15^h to 16^h Wave in V.F. (+ .0004). 16^h to 16^h Increase in H.F. (+ .0013). 17^h to 20^h Decrease in V.F. (- .0011). 18^h to 19^h Decrease in Dec. (- 3'), continued till 20^h by two successive waves (- 5' and - 4'). 19^h to 19^h Wave in H.F. (+ .0015), followed till 21^h by an irregular triple wave (+ .0012, - .0010, + .0022), the third portion triple-crested. 20^h to 21^h Irregular wave in Dec. (- 9'). 20^h to 20^h Decrease in V.F. (- .0004).
- 28^d 8^h to 8^h Decrease in H.F. (- .0012). 8^h to 9^h Wave in H.F. (- .0010). 14^h to 14^h Very sharp wave in H.F. (+ .0014), preceded and followed by sharp smaller waves. 14^h to 15^h Wave in H.F. (- .0027). 14^h to 18^h Irregular triple wave in Dec. (- 4', + 4', - 8'). 16^h to 18^h Double wave in H.F. (- .0020 to + .0027). 22^h to 24^h Truncated wave in Dec. (+ 5'). 23^h to 24^h Wave in H.F. (+ .0012); decrease in V.F. (- .0005).
- 29^d 0^h to 1^h Wave in Dec. (+ 4'). 10^h to 12^h Wave in H.F. (- .0018). 15^h to 16^h Two successive waves in H.F. (- .0016 and - .0015), the first steep. 22^h to 24^h Wave in H.F. (+ .0020). 22^h to 23^h Wave in Dec. (+ 3').
- 30^d 7^h to 7^h Wave in Dec. (- 3'). 11^h to 12^h Wave in H.F. (- .0010). 12^h to 13^h Wave in Dec. (- 3'). 14^h to 15^h Decrease in Dec. (- 8'). 14^h to 14^h Decrease in H.F. (- .0016), followed till 15^h by a very sharp increase (+ .0038). 14^h to 16^h Wave in V.F. (+ .0003). 15^h to 16^h Wave in H.F. (- .0020). 19^h to 20^h Waves in Dec. (+ 3') and H.F. (- .0010). 21^h to 21^h Wave in H.F. (+ .0013); in Dec. small. 21^h to 23^h Flat-crested wave in H.F. (- .0012). 23^h to 24^h Decrease in Dec. (- 4').

May

- 1^d 1^h to 3^h Wave in Dec. (- 4'). 2^h to 3^h Wave in H.F. (- .0012).
- 2^d 21^h to 22^h Increase in Dec. (+ 4'), followed by decrease (- 7'). 22^h to 23^h Wave in H.F. (+ .0020). 22^h to 23^h Decrease in Dec. (- 5'). 2^d 23^h to 3^d 0^h Decrease in H.F. (- .0014).
- 3^d 1^h to 2^h Wave in H.F. (+ .0023). 1^h to 2^h Wave in Dec. (- 7'). 1^h to 2^h Wave in V.F. (- .0003). 18^h to 20^h Slow double-crested wave in Dec. (- 4'). 3^d 23^h to 4^d 0^h Wave in H.F. (+ .0011).
- 4^d 21^h to 23^h Irregular double wave in Dec. (+ 4' to - 3'): Wave in H.F. (+ .0016). 21^h to 22^h Decrease in V.F. (- .0003).
- 5^d 0^h to 1^h Wave in Dec. (+ 3').
- 7^d 1^h to 4^h Slow double wave in Dec. (+ 4' to - 3').
- 9^d 20^h to 20^h Decrease in Dec. (- 4').
- 11^d 18^h to 19^h Decrease in H.F. (- .0018). 19^h to 19^h Decrease in Dec. (- 4').
- 13^d 3^h to 4^h Wave in Dec. (- 7'). 5^h to 5^h Wave in H.F. (- .0015). 10^h to 11^h Decrease in H.F. (- .0019). 12^h to 13^h Irregular wave in H.F. (- .0021). 12^h to 13^h Wave in Dec. (+ 3'). 15^h to 15^h Decrease in Dec. (- 9'). 15^h to 15^h Wave in H.F. (- .0036), very sharp at commencement. 15^h to 15^h Increase in V.F. (+ .0004). 21^h to 24^h Two successive waves in H.F. (+ .0013 and + .0018). 22^h to 24^h Wave in Dec. (- 5').
- 14^d 0^h to 1^h Wave in Dec. (- 3'). 4^h to 5^h Wave in Dec. (+ 3'). 6^h to 7^h Wave in Dec. (+ 3'). 17^h to 18^h Wave in H.F. (+ .0013).
- 15^d 0^h to 1^h Irregular wave in Dec. (+ 3'). 0^h to 1^h Wave in H.F. (+ .0012). 0^h to 1^h Decrease in V.F. (- .0003). 3^h to 5^h Wave in Dec. (+ 8'). 3^h to 4^h Wave in H.F. (- .0010). 4^h to 5^h Decrease in V.F. (- .0003). 7^h to 9^h Irregular wave in Dec. (+ 4'). 7^h to 9^h Irregular wave in H.F. (- .0010).
- 16^d 4^h to 5^h Wave in H.F. (- .0010).
- 17^d 15^h to 16^h Irregular double wave in H.F. (+ .0014 to - .0013).
- 18^d 13^h to 14^h Wave in H.F. (- .0016). 14^h to 15^h Wave in H.F. (- .0010). 15^h to 17^h Double-crested wave in H.F. (- .0023). 20^h to 21^h Double wave in H.F. (+ .0014 to - .0011). 20^h to 20^h Decrease in Dec. (- 5'). 18^d 23^h to 19^d 2^h Two successive waves in H.F. (+ .0010 and + .0021).
- 19^d 0^h to 2^h Double wave in Dec. (+ 4' to - 6'). 0^h to 1^h Decrease in V.F. (- .0005). 3^h to 4^h Wave in Dec. (- 3'). 4^h to 4^h Wave in H.F. (+ .0010). 10^h to 10^h Sharp wave in H.F. (+ .0010), followed till 12^h by two successive sharp waves (+ .0018 and + .0019); in Dec. small. 13^h to 15^h Flat-crested wave in H.F. (- .0011), followed till 16^h by a wave (- .0015). 16^h to 17^h Wave in H.F. (- .0021), steep at commencement.
- 20^d 18^h to 19^h Wave in H.F. (+ .0012).

1910.

May

- 22^d 1^h to 2³/₄^h Wave in Dec. (+ 4').
- 23^d 22^h to 23^h Waves in Dec. (+ 4') and H.F. (+ '0015).
- 24^d 0^h Sudden decrease in H.F. (- '0010). 11^h to 12^h Wave in H.F. (- '0012). 13¹/₄^h Sudden decrease in H.F. (- '0008), followed by slower increase (+ '0016). 14^h to 15^h Wave in H.F. (- '0022). 19¹/₄^h to 20¹/₄^h Double-crested wave in H.F. (- '0012). 21^h to 21¹/₄^h Sharp increase in H.F. (+ '0016), followed by slower partial return. 22³/₄^h to 23¹/₂^h Wave in Dec. (- 3'), followed till 25^d 3^h by an irregular triple wave (+ 5', - 11', + 4'). 24^d 23^h to 25^d 4^h Slow double wave in H.F. (+ '0035 to - '0020). 24^d 23³/₄^h to 25^d 0¹/₄^h Decrease in V.F. (- '0007).
- 25^d 1^h to 2³/₄^h Wave in V.F. (+ '0003). 4¹/₂^h to 4³/₄^h Decrease in H.F. (- '0018). 5^h to 7³/₄^h Wave in Dec. (- 5'), with sharp superposed fluctuations. 7^h to 8¹/₄^h Wave in H.F. (- '0013). 14^h to 15¹/₄^h Double wave in H.F. (- '0012 to + '0012). 14¹/₂^h to 14³/₄^h Decrease in Dec. (- 3'). 17¹/₄^h to 17³/₄^h Decrease in Dec. (- 10'). 17¹/₂^h to 19^h Double wave in H.F. (- '0019 to + '0016), the first portion steep, the second irregular and double-crested. 18^h to 18¹/₄^h Increase in Dec. (+ 3'). 20³/₄^h to 22^h Two successive sharp waves in Dec. (+ 6' and + 7'). 20³/₄^h to 21³/₄^h Sharp double-crested wave in H.F. (+ '0023). 21^h to 21¹/₄^h Sharp decrease in V.F. (- '0004). 21¹/₂^h to 22¹/₄^h Wave in V.F. (- '0003). 22¹/₄^h to 23^h Waves in Dec. (- 3') and H.F. (+ '0011).
- 26^d 1¹/₂^h to 3^h Wave in Dec. (+ 4'). 5^h to 7^h Irregular wave in Dec. (+ 3'): wave in H.F. (- '0019). 19^h to 19¹/₄^h Decrease in Dec. (- 6'). 19¹/₄^h to 19¹/₂^h Increase in H.F. (+ '0015).
- 27^d 15¹/₂^h to 15³/₄^h Increase in H.F. (+ '0015). 21³/₄^h to 22^h Waves in Dec. (+ 3') and H.F. (+ '0011).
- 28^d 0³/₄^h to 1¹/₂^h Wave in Dec. (+ 3'). 2^h to 4^h Wave in Dec. (- 4'). 15^h to 15¹/₂^h Decrease in Dec. (- 6'). 15^h to 16^h Double wave in H.F. (- '0010 to + '0012). 19^h Sudden increase in Dec. (+ 4'), followed till 19³/₄^h by decrease (- 8'): sudden increase in H.F. (+ '0020), followed till 19¹/₂^h by decrease (- '0026).
- 29^d 0^h to 2^h Wave in H.F. (- '0010). 1¹/₂^h to 2¹/₂^h Wave in Dec. (- 4'). 2^h to 3¹/₄^h Wave in H.F. (- '0013). 4^h to 5¹/₂^h Wave in H.F. (- '0010).
- 30^d 15³/₄^h to 16³/₄^h Wave in H.F. (- '0013). 22¹/₂^h to 23¹/₄^h Wave in Dec. (- 3'), followed till 31^d 1^h by a flat-crested wave (- 3').
- 31^d 2¹/₄^h to 4¹/₂^h Two successive waves in Dec. (+ 4' and + 3'). 3¹/₂^h to 5¹/₂^h Wave in H.F. (+ '0012). 13^h to 14¹/₂^h Truncated wave in H.F. (- '0012). 15¹/₄^h to 17^h Two successive waves in H.F. (- '0011 and - '0012).

June

- 8^d 14^h to 18^h Irregular sextuple wave in H.F. (+ '0017, - '0012, + '0019, - '0018, + '0028, - '0016), followed by fluctuations till 23^h. 15¹/₄^h to 16^h Wave in Dec. (+ 3'). 17¹/₄^h to 17³/₄^h Decrease in Dec. (- 5').
- 9^d 10^h to 11^h Wave in H.F. (- '0013). 14^h to 17^h Quintuple wave in H.F. (- '0009, + '0010, - '0009, + '0014, - '0012). 18¹/₂^h to 20^h. Two successive waves in Dec. (- 3' and - 3') and H.F. (+ '0014 and + '0015).
- 10^d 14^h to 14³/₄^h Wave in H.F. (+ '0010). 21¹/₄^h to 22¹/₄^h Wave in H.F. (+ '0011).
- 11^d 3¹/₄^h to 4³/₄^h Irregular wave in Dec. (+ 3'). 15^h to 15³/₄^h Wave in H.F. (+ '0014). 17^h to 18¹/₂^h Wave in H.F. (+ '0015). 18³/₄^h Sharp decrease in Dec. (- 3'). 21¹/₄^h to 23^h Double-crested wave in Dec. (- 5').
- 12^d 14¹/₂^h to 15¹/₂^h Double-crested wave in H.F. (- '0010).
- 13^d 15^h to 16¹/₂^h Double wave in H.F. (- '0012 to + '0012).
- 16^d 10^h to 15^h Loss of Dec., H.F. and V.F. Registers.
- 20^d 0^h to 21^d 0^h See Plate II.
- 21^d 3^h to 6^h Small sharp fluctuations in Dec. and H.F. 18³/₄^h to 20¹/₄^h Flat-crested wave in Dec. (- 6'): wave in H.F. (+ '0026), steep at commencement. 21³/₄^h to 23^h Double-crested wave in H.F. (+ '0031). 22^h to 23^h Double wave in Dec. (+ 3' to - 6'). 22^h to 22¹/₄^h Decrease in V.F. (- '0005). 21^d 23^h to 22^d 1^h Double wave in Dec. (- 5' to + 7'), the second portion double-crested.
- 22^d 0^h to 0¹/₂^h Decrease in V.F. (- '0006). 0¹/₄^h to 1^h Wave in H.F. (+ '0015). 20³/₄^h to 21¹/₄^h Waves in Dec. (- 3') and H.F. (+ '0010).
- 23^d 2^h to 3¹/₄^h Wave in Dec. (+ 3'). 2^h to 3^h Wave in H.F. (- '0010). 23^d 23¹/₂^h to 24^d 1^h Wave in Dec. (+ 6').
- 24^d 0^h to 1¹/₄^h Flat-crested wave in H.F. (+ '0010). 0^h to 0¹/₂^h Decrease in V.F. (- '0003).
- 25^d 21¹/₄^h to 22¹/₄^h Wave in H.F. (+ '0012): in Dec. small.
- 26^d 3¹/₂^h to 4¹/₂^h Wave in Dec. (+ 3'). 12¹/₂^h to 13¹/₄^h Wave in H.F. (- '0010). 16¹/₂^h to 17¹/₂^h Wave in H.F. (+ '0010). 17³/₄^h to 19^h Waves in Dec. (- 5') and H.F. (+ '0024).
- 29^d 17^h to 19¹/₄^h Two successive waves in H.F. (- '0016 and - '0015). 18¹/₂^h to 19^h Decrease in Dec. (- 5'). 19³/₄^h to 20^h Decrease in Dec. (- 5'). 19³/₄^h to 20¹/₂^h Wave in H.F. (+ '0018). 20^h to 22^h Two successive waves in Dec. (- 4' and - 4'). 20³/₄^h to 21^h Sharp decrease in H.F. (- '0020).

1910.

July

- 4^d 21³/₄^h to 23¹/₄^h Flat-crested wave in H.F. (- '0012).
- 5^d 1⁴/₄^h to 4¹/₄^h Irregular double wave in H.F. (+ '0016 to - '0024) with superposed fluctuations. 2^h to 4³/₄^h Double wave in Dec. (- 6' to + 12'). 3^h to 5¹/₂^h Irregular double wave in V.F. (+ '0002 to - '0003). 4³/₄^h to 7¹/₄^h Irregular wave in H.F. (- '0018). 5¹/₂^h to 7^h Wave in Dec. (+ 7'). 7³/₄^h to 8¹/₂^h Wave in Dec. (+ 4'). 14¹/₄^h to 15^h Wave in H.F. (+ '0012). 15¹/₄^h to 15³/₄^h Wave in H.F. (+ '0017). 16^h to 16¹/₄^h Increase in H.F. (+ '0016). 16³/₄^h to 17^h Sharp decrease in Dec. (- 6'), continued till 18^h by a double-crested wave (- 7'), steep at commencement. 16³/₄^h to 18^h Triple wave in H.F. (- '0025, + '0020, - '0010), followed till 19^h by a wave (- '0016). 17^h to 17³/₄^h Wave in V.F. (+ '0003). 21^h to 22^h Wave in Dec. (- 4'): in H.F. small.
- 6^d 0^h to 3^h Two successive waves in Dec. (+ 4' and + 4'). 0^h to 1¹/₂^h Wave in H.F. (+ '0016). 4^h to 5³/₄^h Wave in H.F. (+ '0012). 6³/₄^h to 8¹/₄^h Wave in H.F. (- '0010). 13¹/₄^h to 13³/₄^h Wave in H.F. (- '0010). 14³/₄^h to 16¹/₄^h Flat-crested wave in H.F. (- '0012). 21¹/₂^h to 23³/₄^h Double wave in Dec. (- 3' to + 4').
- 7^d 4¹/₄^h to 7³/₄^h Quadruple wave in Dec. (+ 2', - 3', + 3', - 3'). 11¹/₄^h to 12^h Wave in H.F. (- '0010). 20³/₄^h to 21¹/₄^h Wave in Dec. (- 3'): in H.F. small.
- 9^d 18³/₄^h to 19¹/₂^h Wave in H.F. (- '0011).
- 10^d 3¹/₂^h to 5¹/₄^h Wave in Dec. (+ 3'). 18¹/₄^h to 19³/₄^h Wave in H.F. (+ '0022).
- 15^d 16^h to 16¹/₂^h Decrease in H.F. (- '0010).
- 20^d 21^h to 21¹/₂^h Wave in Dec. (- 4'): in H.F. small.
- 22^d 14¹/₄^h to 15¹/₂^h Double wave in H.F. (+ '0010 to - '0008), the intermediate portion steep.
- 23^d 21¹/₂^h to 23¹/₂^h Double wave in Dec. (+ 3' to - 5'). 21³/₄^h to 22¹/₄^h Sharp wave in H.F. (+ '0012).
- 24^d 0^h to 4³/₄^h Irregular quadruple wave in Dec. (- 3', + 4', - 4', + 3'). 1^h to 3^h Irregular wave in H.F. (+ '0024). 1^h to 4¹/₂^h Slow wave in V.F. (- '0004).
- 25^d 0¹/₂^h to 2¹/₂^h Wave in H.F. (+ '0012). 12^h to 13¹/₄^h Flat-crested wave in H.F. (- '0013).
- 29^d 1¹/₂^h to 4¹/₄^h Irregular wave in Dec. (+ 4' to - 4'), both portions double-crested. 1¹/₂^h to 2^h Very sharp double wave in H.F. (+ '0008 to - '0014). 2^h to 4¹/₄^h Slow wave in V.F. (- '0003). 2³/₄^h to 5^h Irregular double wave in H.F. (+ '0008 to - '0011). 12¹/₂^h to 13^h Wave in H.F. (+ '0010). 13³/₄^h to 14^h Wave in H.F. (+ '0010). 29^d 23¹/₂^h to 30^d 0¹/₂^h Wave in H.F. (+ '0012).
- 30^d 0¹/₄^h to 1¹/₄^h Wave in Dec. (+ 3').

August

- 1^d 13^h to 14¹/₄^h Wave in H.F. (+ '0015), followed by very sharp fluctuations till 14¹/₂^h: small fluctuations in Dec. and V.F. 15¹/₄^h to 17³/₄^h Triple wave in H.F. (+ '0026, - '0019, + '0010), the second portion double-crested.
- 2^d 1⁴/₄^h to 3¹/₄^h Wave in Dec. (+ 4'). 7³/₄^h to 8¹/₂^h Wave in H.F. (- '0010). 18¹/₄^h to 20^h Wave in Dec. (- 4').
- 3^d 1^h to 2³/₄^h Wave in Dec. (- 3'). 13^h to 14³/₄^h Irregular wave in H.F. (- '0012).
- 4^d 0¹/₂^h to 1¹/₂^h Wave in Dec. (+ 4'). 11¹/₄^h to 12³/₄^h Wave in H.F. (- '0014). 16^h to 17^h Wave in H.F. (- '0012). 16³/₄^h to 17^h Sharp decrease in Dec. (- 5').
- 5^d 2¹/₂^h to 5^h Irregular wave in Dec. (+ 9'). 22¹/₂^h to 23^h Wave in H.F. (+ '0018), steep at commencement.
- 9^d 23³/₄^h to 10^d 0³/₄^h Wave in H.F. (+ '0010).
- 10^d 2³/₄^h to 4^h Wave in Dec. (+ 7'), followed till 4³/₄^h by an increase (+ 9'). 3^h to 4^h Irregular increase in H.F. (+ '0030), followed till 5³/₄^h by an irregular decrease (- '0065), very steep after 5^h. 3¹/₄^h to 5³/₄^h Irregular wave in V.F. (- '0003). 5^h to 5³/₄^h Irregular increase in Dec. (+ 7'), steep at times. 6^h to 7³/₄^h Irregular double wave in Dec. (+ 5' to - 5'). 6¹/₄^h to 7^h Double-crested wave in H.F. (+ '0012). 7¹/₄^h to 8^h Wave in H.F. (- '0012). 10¹/₄^h to 11^h Wave in H.F. (- '0014). 16¹/₂^h to 17^h Decrease in Dec. (- 4'). 16¹/₂^h to 17¹/₄^h Wave in H.F. (- '0030). 17³/₄^h to 18¹/₂^h Wave in H.F. (+ '0010). 19^h to 19¹/₂^h Decrease in Dec. (- 6'): in H.F. (- '0010). 19¹/₂^h to 20¹/₂^h Irregular wave in V.F. (+ '0003). 19³/₄^h to 20¹/₂^h Two successive waves in Dec. (+ 5' and + 4'), and H.F. (+ '0011 and + '0016).
- 11^d 12¹/₂^h to 12³/₄^h Sharp wave in H.F. (- '0012): in Dec. small. 17^h to 18^h Wave in H.F. (- '0014). 17¹/₄^h to 19^h Wave in Dec. (- 4').
- 13^d 22¹/₄^h to 23³/₄^h Double-crested wave in H.F. (+ '0012).
- 14^d 15^h to 16^h Double-crested wave in H.F. (+ '0011). 16³/₄^h to 17¹/₄^h Wave in H.F. (+ '0015). 17³/₄^h to 18^h Decrease in Dec. (- 3'): in H.F. (- '0010). 20^h to 21³/₄^h Double-crested wave in H.F. (+ '0030), immediately followed till 22^h by a sharp wave (+ '0010). 20¹/₂^h to 20³/₄^h Decrease in V.F. (- '0003). 20³/₄^h to 21¹/₂^h Sharp wave in Dec. (- 13').
- 15^d 19³/₄^h to 20¹/₂^h Wave in Dec. (- 3').

1910.

- August 18^d 0^h to 1^h Wave in Dec. (+ 3'). 3^h to 4^h Wave in Dec. (- 4'). 18^h to 18^{3/4} Wave in H.F. (+ '0010), followed till 19^{3/4} by a double-crested wave (+ '0011). 19^{3/4} to 20^{3/4} Wave in Dec. (- 7'). 20^{1/4} to 21^{1/2} Wave in H.F. (+ '0018). 21^{1/4} to 22^{3/4} Irregular wave in Dec. (- 5'). 18^d 22^{3/4} to 19^d 0^{1/2} Double wave in H.F. (- '0012 to + '0028). 18^d 23^h to 19^d 0^{3/4} Wave in Dec. (- 5').
- 19^d 1^{1/4} to 2^h Irregular wave in H.F. (- '0012). 1^{1/2} to 2^h Increase in Dec. (+ 5'). 4^{1/4} to 5^h Wave in Dec. (- 3'). 5^h to 6^{1/4} Flat-crested wave in H.F. (- '0014). 6^{3/4} to 7^{1/4} Wave in Dec. (- 3'). 7^h to 8^{1/2} Flat-crested wave in H.F. (- '0010). 9^{3/4} to 11^{1/4} Wave in H.F. (- '0018). 13^{1/4} to 13^{3/4} Wave in H.F. (+ '0010). 15^{1/2} to 16^h Wave in H.F. (- '0010). 16^{1/4} to 17^h Wave in H.F. (+ '0010). 18^{1/2} to 19^{1/2} Double wave in H.F. (- '0008 to + '0008). 18^{3/4} to 20^h Double-crested wave in Dec. (- 5'). 22^{1/2} to 23^{1/2} Wave in Dec. (- 4').
- 20^d 0^h to 1^h Wave in Dec. (+ 3'). 0^h to 1^{1/2} Wave in H.F. (+ '0012). 3^h to 4^{1/2} Wave in Dec. (+ 5'). 3^h to 4^h Wave in H.F. (- '0012). 4^{3/4} to 6^h Wave in H.F. (- '0010). 19^h to 21^h Wave in Dec. (- 7'), steep at commencement. 19^h to 20^h Wave in H.F. (+ '0011).
- 21^d 4^{1/2} to 7^h Wave in H.F. (+ '0020). 13^h to 14^{1/2} Double-crested wave in H.F. (- '0014). 16^{1/2} to 17^h Decrease in Dec. (- 10'), followed till 19^h by an irregular double-crested wave (+ 7'). 16^{3/4} to 18^h Double wave in H.F. (- '0011 to + '0030), the intermediate portion very steep. 19^{1/2} to 21^{1/2} Two successive waves in H.F. (- '0013 and - '0011), followed till 22^{3/4} by a flat-crested wave (- '0010). 21^{1/2} to 24^h Irregular triple wave in Dec. (- 3', + 4', - 3'). 23^{1/4} to 24^h Wave in H.F. (+ '0020).
- 22^d 0^h to 23^d 0^h See Plate II.
- 23^d 18^{1/4} to 19^{1/2} Wave in Dec. (- 5'). 18^{1/4} to 20^h Irregular wave in H.F. (+ '0015). 20^{1/2} to 22^{1/2} Irregular double-crested wave in Dec. (+ 4'). 23^h to 24^h Irregular double-crested wave in H.F. (+ '0013). 23^d 23^{1/4} to 24^d 2^h Wave in Dec. (- 4').
- 24^d 4^{1/2} to 7^h Wave in Dec. (+ 4'). 14^{3/4} to 16^h Truncated wave in H.F. (- '0014). 19^{1/2} to 20^h Decrease in Dec. (- 5'). 20^h to 21^{1/2} Very sharp wave in H.F. (+ '0070). 20^{1/4} to 20^{3/4} Sharp wave in Dec. (- 8'), followed till 21^{1/2} by a double-crested wave (+ 3'). 20^{1/4} to 21^h Decrease in V.F. (- '0004).
- 25^d 15^h to 15^{3/4} Wave in H.F. (- '0014).
- 27^d 17^{3/4} to 18^{3/4} Wave in H.F. (- '0012). 18^h to 19^{1/2} Wave in Dec. (- 6').
- 28^d 8^h to 10^h Decrease in H.F. (- '0040). 9^h to 11^h Increase in Dec. (+ 12'). 12^h to 13^{1/2} Irregular increase in H.F. (+ '0030). 14^{1/4} to 15^h Wave in H.F. (- '0012). 15^h to 16^h Wave in Dec. (+ 4'), followed till 17^h by a double-crested wave (- 4'). 15^{1/2} to 16^{1/4} Wave in H.F. (- '0018). 16^{3/4} to 17^{1/4} Wave in H.F. (- '0010). 22^{3/4} to 23^{3/4} Wave in Dec. (- 9'). 28^d 22^{1/2} to 29^d 0^{1/2} Irregular wave in H.F. (+ '0043). 28^d 23^h to 29^d 4^h Slow wave in V.F. (- '0010).
- 29^d 0^{1/4} to 3^{1/4} Irregular triple wave in Dec. (- 13', + 4', - 5'). 1^h to 2^{1/4} Wave in H.F. (- '0014). 2^{1/2} to 4^{1/2} Irregular wave in H.F. (- '0016). 4^{3/4} to 6^{3/4} Two successive waves in H.F. (- '0010 and - '0020), the second double-crested. 5^{1/4} to 6^{1/4} Irregular wave in Dec. (+ 4'). 9^h to 11^h Slow wave in H.F. (- '0012). 17^{1/4} to 17^{1/2} Decrease in Dec. (- 5'). 17^{1/4} to 17^{1/2} Increase in H.F. (+ '0010). 18^h to 19^h Wave in Dec. (- 5'). 18^h to 18^{3/4} Wave in H.F. (- '0018). 29^d 23^{1/4} to 30^d 0^{1/4} Wave in Dec. (+ 3').
- 30^d 5^h to 6^{1/2} Wave in Dec. (- 4'). 6^h to 6^{1/2} Decrease in H.F. (- '0011). 8^{1/2} to 11^h Wave in H.F. (- '0016), with small superposed fluctuations. 13^h to 14^h Wave in H.F. (- '0016). 15^{1/4} to 16^{1/2} Wave in H.F. (- '0023). 15^{3/4} to 17^{1/4} Wave in Dec. (- 8'). 16^h to 17^{1/2} Wave in V.F. (+ '0004). 19^{3/4} to 20^{3/4} Wave in Dec. (- 8'). 20^h to 22^h Two successive small waves in H.F. (+ '0020 and + '0015). 22^h to 23^{1/2} Double wave in Dec. (- 3' to + 4'). 22^{3/4} to 23^{1/2} Wave in H.F. (+ '0012).
- 31^d 17^h to 17^{1/4} Decrease in Dec. (- 3'), followed till 18^{1/4} by a wave (+ 3').
- September 1^d 20^{1/4} to 24^h Very irregular double wave in Dec. (- 4' to + 7'). 22^{1/2} to 23^{3/4} Wave in H.F. (+ '0032), followed till 2^d 0^{3/4} by a wave (+ '0010). 22^{3/4} to 23^{1/4} Decrease in V.F. (- '0006).
- 2^d 3^{1/2} to 5^{1/4} Wave in Dec. (+ 4'). 3^{1/2} to 5^h Wave in H.F. (- '0012).
- 5^d 17^{1/4} to 18^{1/2} Wave in Dec. (- 5').
- 6^d 3^{1/2} to 5^h Wave in Dec. (+ 3'). 11^{1/2} to 14^{1/2} Loss of Dec. and H.F. registers. 15^{1/2} to 16^h Wave in H.F. (+ '0015). 16^{1/2} to 18^{1/2} Slow double-crested wave in H.F. (- '0015). 16^{3/4} to 18^{3/4} Irregular wave in Dec. (- 5'). 21^{3/4} to 23^{3/4} Double-crested wave in Dec. (- 7'). 22^h to 23^{1/2} Wave in H.F. (+ '0018).
- 7^d 0^{1/2} to 2^{1/2} Wave in Dec. (+ 11'). 0^{1/2} to 1^{1/4} Wave in H.F. (- '0016). 2^h to 4^{1/2} Wave in H.F. (- '0014). 2^{1/2} to 5^h Wave in Dec. (+ 7'). 20^{1/2} to 21^{1/2} Wave in Dec. (- 3').
- 8^d 0^h to 0^{3/4} Wave in Dec. (- 3'). 1^h to 3^h Wave in Dec. (+ 5').
- 9^d 0^h to 0^{1/4} Increase in Dec. (+ 3'). 21^{1/4} to 22^h Wave in Dec. (- 3').

1910.

- September 10^d 14¹/₄^h to 16^h Wave in H.F. (+ .0020). 19^h to 20¹/₂^h Wave in Dec. (- 4'). 21³/₄^h to 22¹/₂^h Wave in H.F. (+ .0010). 22^h to 22³/₄^h Decrease in Dec. (- 4').
- 11^d 18¹/₄^h to 20^h Wave in Dec. (- 7'). 18³/₄^h to 19^h Increase in H.F. (+ .0012).
- 12^d 1³/₄^h to 3^h Wave in Dec. (+ 3').
- 13^d 18³/₄^h to 20^h Wave in Dec. (- 5'). 13^d 23¹/₂^h to 14^d 2^h Flat-crested wave in Dec. (- 4'). 13^d 23¹/₂^h to 14^d 1^h Wave in H.F. (+ .0012).
- 14^d 15³/₄^h to 17¹/₄^h Wave in Dec. (- 4'). 19³/₄^h to 21¹/₄^h Double-crested wave in Dec. (- 4').
- 15^d 0^h to 2^h Slow wave in H.F. (+ .0012).
- 16^d 10^h to 11¹/₄^h Flat-crested wave in H.F. (- .0010), with sharp superposed fluctuations. 12^h to 12¹/₂^h Waves in Dec. (+ 4') and H.F. (+ .0012). 16³/₄^h to 18¹/₄^h Flat-crested wave in H.F. (- .0014). 17³/₄^h to 19^h Wave in Dec. (- 8').
- 20^d 15³/₄^h to 16¹/₄^h Wave in H.F. (+ .0010). 17¹/₂^h to 17³/₄^h Sharp decrease in H.F. (- .0012), followed till 19^h by a wave (+ .0020). 18¹/₂^h to 20¹/₂^h Double-crested wave in Dec. (- 7'), followed till 23¹/₄^h by two successive waves (- 3' and - 7'). 21^h to 22³/₄^h Irregular wave in H.F. (+ .0012). 21¹/₄^h to 22^h Decrease in V.F. (- .0003).
- 21^d 1³/₄^h to 2^h Increase in Dec. (+ 4'). 2^h to 3^h Decrease in V.F. (- .0008). 2¹/₄^h to 4^h Wave in H.F. (+ .0022). 2¹/₂^h to 3^h Sharp decrease in Dec. (- 12'). 3^h to 4¹/₂^h Increase in V.F. (+ .0004). 3¹/₂^h to 4^h Increase in Dec. (+ 5'). 5¹/₄^h to 6³/₄^h Wave in Dec. (+ 3'). 10^h to 11^h Wave in H.F. (- .0012).
- 22^d 7³/₄^h to 9¹/₂^h Wave in H.F. (- .0020). 9^h to 9³/₄^h Wave in Dec. (- 4'). 11³/₄^h to 12¹/₂^h Wave in Dec. (- 3'). 12¹/₄^h to 13¹/₄^h Wave in H.F. (+ .0013). 14^h to 15^h Wave in H.F. (+ .0010). 15¹/₄^h to 16^h Wave in Dec. (- 5'). 15¹/₂^h to 16³/₄^h Wave in H.F. (+ .0019). 16³/₄^h to 17^h Decrease in Dec. (- 4'): increase in H.F. (+ .0010). 21^h to 23³/₄^h Wave in Dec. (- 5'), with sharp wave (- 5') superposed on it from 22^h to 22¹/₄^h. 22^h to 23¹/₄^h Wave in H.F. (+ .0028), steep at commencement.
- 23^d 0^h to 1^h Increase in H.F. (+ .0012). 2¹/₂^h to 3^h Increase in Dec. (+ 3'). 5^h to 7^h Wave in H.F. (- .0017). 5¹/₄^h to 7¹/₂^h Irregular wave in Dec. (+ 5'). 8³/₄^h to 9¹/₂^h Decrease in H.F. (- .0017).
- 24^d 11^h to 11¹/₄^h Decrease in H.F. (- .0011). 21¹/₂^h to 23¹/₂^h Truncated wave in H.F. (+ .0025). 21³/₄^h to 22³/₄^h Wave in Dec. (- 6').
- 25^d 0¹/₂^h to 2^h Wave in Dec. (+ 15'). 0¹/₂^h to 1¹/₄^h Sharp wave in H.F. (+ .0025). 0³/₄^h to 1^h Sharp decrease in V.F. (- .0007). 2³/₄^h to 4^h Increase in Dec. (+ 10'), followed till 5¹/₂^h by a wave (- 5'). 2³/₄^h to 6¹/₂^h Two successive waves in H.F. (- .0017 and - .0014). 10¹/₄^h to 11¹/₄^h Waves in Dec. (+ 4') and H.F. (- .0016). 14³/₄^h to 16¹/₄^h Sharp double wave in H.F. (- .0021 to + .0020). 15^h to 15¹/₂^h Sharp decrease in Dec. (- 16'), followed till 16^h by slower increase (+ 11'). 15^h to 16¹/₂^h Wave in V.F. (+ .0004). 18^h to 19³/₄^h Wave in Dec. (- 14'), steep at commencement, with small waves superposed on second portion. 18¹/₄^h to 19¹/₂^h Irregular wave in H.F. (+ .0040).
- 26^d 0^h to 1^h Waves in Dec. (+ 5') and H.F. (+ .0013): decrease in V.F. (- .0003). 1^h to 2¹/₂^h Waves in Dec. (+ 4') and H.F. (+ .0010). 2¹/₂^h to 2³/₄^h Increase in Dec. (+ 3'). 9¹/₂^h to 11¹/₂^h Wave in H.F. (- .0012). 12^h to 13¹/₄^h Wave in H.F. (- .0013). 15^h to 16^h Wave in H.F. (- .0010). 15¹/₄^h to 15¹/₂^h Decrease in Dec. (- 5'). 18^h to 19¹/₄^h Irregular wave in Dec. (- 3'). 18¹/₂^h to 20^h Wave in H.F. (- .0012).
- 27^d 7^h to 8³/₄^h Wave in H.F. (- .0014). 7¹/₂^h to 8³/₄^h Wave in Dec. (- 3'). 14³/₄^h to 16¹/₄^h Double wave in H.F. (- .0020 to + .0014). 15^h to 16¹/₄^h Wave in Dec. (- 4'). 17^h to 18^h Wave in H.F. (+ .0012), steep at end. 22³/₄^h to 23¹/₄^h Wave in H.F. (+ .0010). 27^d 23¹/₄^h to 28^d 0¹/₄^h Irregular double-crested in Dec. (- 4').
- 28^d 1^h to 3^h Wave in Dec. (- 5'). 2^h to 3³/₄^h Wave in H.F. (- .0013). 5¹/₂^h to 6³/₄^h Wave in H.F. (- .0010). 8^h to 9¹/₂^h Wave in Dec. (- 3'). 14¹/₂^h to 15^h Decrease in Dec. (- 4'): wave in H.F. (- .0011). 18¹/₂^h to 19¹/₂^h Sharp-crested wave in Dec. (- 6').
- 29^d 0^h to 30^d 0^h See Plate III.
- 30^d 5^h to 5¹/₄^h Sharp increase in H.F. (+ .0014), followed till 6¹/₂^h by irregular slower decrease (- .0023). 9^h to 10^h Sharp fluctuations in Dec. and H.F. 11^h to 11³/₄^h Sharp wave in Dec. (+ 3'). 11³/₄^h to 12¹/₄^h. Increase in H.F. (+ .0018). 13^h Sharp decrease in Dec. (- 8'): in H.F. (- .0025), followed till 13¹/₂^h by rather less sharp increase (+ .0037): similar small movement in V.F.
- October 1^d 16¹/₂^h to 17¹/₂^h Wave in Dec. (- 4'). 16³/₄^h to 17³/₄^h Wave in H.F. (+ .0010). 18³/₄^h to 20¹/₄^h Irregular double-crested wave in Dec. (- 9'). 19^h to 20¹/₄^h Double-crested wave in H.F. (+ .0014). 20³/₄^h to 21^h Sharp wave in H.F. (+ .0010). 21¹/₄^h to 23³/₄^h Double wave in Dec. (- 4' to + 3'). 22^h to 23^h Wave in H.F. (+ .0011). 1^a 23¹/₂^h to 2^d 2¹/₄^h Wave in H.F. (+ .0025), with small waves superposed.

1910.

- October 2^d 0^h to 3^h Slow wave in V.F. (− 0006). 1^h to 3^h Irregular wave in Dec. (− 6′). 2^h to 4^h Irregular wave in H.F. (+ 0011). 7^h to 7^h Decrease in H.F. (− 0015). 14^h to 16^h Wave in H.F. (− 0012). 17^h to 19^h Truncated wave in Dec. (− 4′): in H.F. small. 21^h to 23^h Irregular double-crested wave in Dec. (− 7′), the first portion steep. 21^h to 22^h Wave in H.F. (+ 0011).
- 3^d 0^h to 2^h Wave in Dec. (+ 5′). 14^h to 15^h Sharp double-crested wave in H.F. (− 0023). 15^h to 16^h Double-crested waves in Dec. (− 11′) and V.F. (+ 0004). 16^h to 17^h Wave in H.F. (− 0017). 17^h to 18^h Wave in Dec. (+ 3′), followed till 19^h by a small double wave. 17^h to 19^h Double-crested wave in H.F. (− 0013). 19^h to 19^h Sharp wave in Dec. (− 5′). 19^h to 20^h Wave in H.F. (+ 0020). 22^h to 24^h Wave in H.F. (+ 0024). 22^h to 23^h Decrease in V.F. (− 0003). 23^h Sharp decrease in Dec. (− 4′).
- 4^d 1^h to 2^h Wave in Dec. (+ 4′). 1^h to 2^h Wave in H.F. (+ 0017). 1^h to 2^h Decrease in V.F. (− 0003). 2^h to 4^h Double-crested wave in Dec. (+ 7′). 2^h to 4^h Decrease in V.F. (− 0005). 3^h to 4^h Wave in H.F. (+ 0014). 4^h to 5^h Wave in Dec. (+ 3′). 5^h to 8^h Irregular triple-crested wave in Dec. (+ 9′). 6^h to 8^h Irregular double-crested wave in H.F. (− 0022). 14^h to 15^h Irregular flat-crested wave in H.F. (− 0013), followed till 17^h by fluctuations in Dec. and H.F. 15^h to 21^h Wave in V.F. (+ 0015). 17^h to 17^h Sharp decrease in Dec. (− 24′), followed till 18^h by a sharp increase (+ 15′). 17^h to 18^h Sharp double wave in H.F. (− 0023 to + 0018). 18^h to 21^h Irregular triple wave in Dec. (+ 3, − 5, + 4), the second and third portions double-crested. 19^h to 20^h Irregular wave in H.F. (+ 0035). 21^h to 21^h Wave in Dec. (+ 3′), followed till 22^h by a sharp double wave (+ 3′ to − 6′). 21^h to 23^h Sharp wave in H.F. (+ 0035). 22^h Sharp decrease in V.F. (− 0004).
- 5^d 18^h to 18^h Sharp increase in H.F. (+ 0014): in Dec. small. 20^h to 22^h Wave in Dec. (− 6′). 21^h to 22^h Wave in H.F. (+ 0017).
- 6^d 0^h to 2^h Irregular wave in H.F. (+ 0030). 0^h to 2^h Double wave in Dec. (+ 4′ to − 4′), the first portion double-crested, followed till 4^h by a wave (+ 4′). 0^h to 2^h Wave in V.F. (− 0005). 6^h to 8^h Wave in Dec. (+ 8′). 6^h to 8^h Wave in H.F. (− 0028). 8^h to 10^h Wave in H.F. (+ 0015). 12^h to 13^h Irregular wave in H.F. (+ 0014). 14^h to 14^h Two successive sharp waves in H.F. (+ 0010 and + 0014). 16^h to 17^h Very irregular triple-crested wave in Dec. (− 7′), followed by a very sharp decrease (− 12′). 16^h Sharp decrease in H.F. (− 0018). 16^h to 19^h Irregular wave in V.F. (+ 0006), immediately followed till 21^h by a sharper wave (− 0012). 17^h to 18^h Sharp double-crested wave in H.F. (− 0026). 18^h to 19^h Two successive waves in Dec. (− 4′ and − 6′). 18^h to 19^h Wave in H.F. (− 0016), followed till 21^h by an irregular triple wave (− 0018, + 0010, − 0045). 19^h to 21^h Very irregular sharp wave in Dec. (− 17′).
- 7^d 19^h to 21^h Irregular triple-crested wave in Dec. (− 6′). 7^d 23^h to 8^d 2^h Triple-crested wave in Dec. (− 7′). 7^d 23^h to 8^d 1^h Wave in H.F. (+ 0016).
- 8^d 3^h to 4^h Wave in Dec. (− 3′). 20^h to 21^h Wave in Dec. (− 3′). 21^h to 22^h Double-crested wave in H.F. (− 0010). 22^h to 24^h Double wave in Dec. (− 3′ to + 4′), the second portion flat-crested. 22^h to 24^h Wave in H.F. (+ 0013).
- 9^d 5^h to 6^h Wave in H.F. (− 0010). 9^d 18^h to 10^d 9^h Loss of V.F. register.
- 10^d 19^h to 20^h Wave in H.F. (− 0012). 20^h to 21^h Wave in Dec. (− 7′), followed till 24^h by an irregular wave (− 8′). 21^h to 21^h Decrease in H.F. (− 0013), followed till 22^h by a wave (+ 0010).
- 11^d 16^h to 17^h Wave in H.F. (− 0010). 20^h to 21^h Wave in Dec. (− 7′). 20^h to 22^h Wave in H.F. (+ 0035). 21^h to 22^h Wave in Dec. (− 3′).
- 12^d 2^h to 4^h Wave in Dec. (+ 7′). 16^h to 17^h Wave in H.F. (− 0014), steep at commencement. 18^h to 20^h Irregular sharp wave in Dec. (− 15′). 18^h to 20^h Double wave in H.F. (− 0016 to + 0024). 21^h to 22^h Sharp double wave in Dec. (− 6′ to + 5′). 21^h to 23^h Irregular double wave in H.F. (+ 0020 to − 0017): irregular decrease in V.F. (− 0008), followed till 23^h by a wave (+ 0003). 22^h to 22^h Sharp decrease in Dec. (− 17′), followed till 23^h by a sharp increase (+ 12′). 23^h to 23^h Decrease in Dec. (− 4′). 12^d 23^h to 13^d 0^h Wave in H.F. (− 0024).
- 13^d 0^h to 0^h Sharp increase in Dec. (+ 17′), followed till 3^h by an irregular wave (− 17′). 0^h to 1^h Decrease in V.F. (− 0008). 1^h to 3^h Irregular wave in H.F. (+ 0027). 4^h Small sharp waves in Dec., H.F. and V.F., followed by small fluctuations till 7^h. 11^h to 12^h Wave in H.F. (− 0020). 11^h to 12^h Wave in Dec. (+ 3′). 12^h to 13^h Wave in H.F. (+ 0013). 13^h to 13^h Wave in Dec. (+ 4′): in V.F. small. 15^h to 17^h Very irregular wave in Dec. (− 13′). 15^h to 16^h Double wave in H.F. (− 0014 to + 0021). 15^h to 17^h Wave in V.F. (+ 0003). 18^h to 20^h Wave in Dec. (− 4′). 18^h to 19^h Double-crested wave in H.F. (+ 0010). 22^h to 23^h Wave in H.F. (+ 0012). 22^h to 22^h Wave in Dec. (+ 5′). 22^h to 23^h Decrease in V.F. (− 0005). 13^d 23^h to 14^d 0^h Decrease in H.F. (− 0020).

1910.

- October 14^d 1^h to 4^h Irregular wave in Dec. (+ 5'). 1^h to 2^h Wave in H.F. (- .0012). 15^h to 16^h Wave in H.F. (- .0015). 16^h to 16^h Wave in Dec. (- 3'). 21^h to 23^h Irregular flat-crested wave in Dec. (- 5'). 21^h to 22^h Wave in H.F. (+ .0013), followed till 23^h by a sharp wave (+ .0033). 22^h to 23^h Wave in V.F. (- .0003).
- 19^d 9^h to 13^h Irregular wave in H.F. (- .0038). 10^h to 11^h Increase in Dec. (+ 11'), followed till 12^h by a decrease (- 4'). 12^h to 13^h Flat-crested wave in Dec. (- 4'). 17^h to 17^h Sharp decrease in Dec. (- 12'), followed till 21^h by an irregular quadruple wave (+ 7', - 8', + 7', - 8'), the first portion double-crested, the rest steep. 17^h to 18^h Sharp wave in H.F. (+ .0030). 20^h to 22^h Sharp triple wave in H.F. (- .0030, + .0013, - .0013). 20^h to 23^h Irregular wave in V.F. (- .0006). 21^h to 23^h Wave in Dec. (- 6'), followed till 23^h by an increase (+ 4').
- 20^d 0^h to 1^h Double-crested wave in Dec. (+ 5'). 0^h to 3^h Wave in V.F. (- .0003). 8^h to 10^h Wave in H.F. (- .0016). 14^h to 15^h Decrease in Dec. (- 5'), continued till 16^h by a wave (- 4'). 14^h to 16^h Wave in H.F. (- .0022), steep at commencement. 17^h to 18^h Sharp decrease in Dec. (- 9'), and increase (+ 5'): wave in H.F. (- .0012). 18^h to 18^h Decrease in H.F. (- .0012). 18^h to 19^h Double-crested wave in H.F. (+ .0014). 19^h to 19^h Wave in Dec. (- 3'). 21^h to 24^h Three successive waves in H.F. (+ .0012, + .0013, and + .0014). 21^h to 24^h Irregular quadruple-crested wave in Dec. (+ 7').
- 21^d 1^h to 2^h Wave in Dec. (- 3'). 14^h to 16^h Double-crested wave in Dec. (- 6'). 14^h to 15^h Wave in H.F. (- .0013). 16^h to 17^h Flat-crested wave in Dec. (- 5'). 16^h to 16^h Sharp wave in H.F. (- .0020). 17^h to 19^h Sharp wave in Dec. (- 15'). 17^h to 18^h Wave in H.F. (- .0014), immediately followed till 19^h by a double wave (- .0011 to + .0017), the latter portion double-crested. 22^h to 23^h Wave in H.F. (+ .0014).
- 22^d 1^h to 3^h Irregular wave in Dec. (+ 4'). 15^h to 16^h Wave in Dec. (- 5'). 15^h to 16^h Wave in H.F. (- .0012). 20^h to 22^h Double-crested wave in Dec. (+ 3').
- 23^d 0^h to 2^h Irregular wave in Dec. (+ 5'). 11^h to 12^h Wave in H.F. (- .0010): in Dec. small. 16^h to 18^h Two successive waves in H.F. (+ .0010 and + .0013), the second sharp: small wave in Dec. 19^h to 19^h Two successive waves in Dec. (+ 3' and + 3'), the second sharp, followed till 20^h by a double wave (+ 6' to - 5'), the first portion steep. 19^h to 20^h Sharp double-crested wave in H.F. (+ .0030). 19^h to 20^h Irregular wave in V.F. (- .0003). 20^h to 22^h Irregular double wave in H.F. (- .0011 to + .0010). 22^h to 24^h Double-crested wave in Dec. (- 5').
- 24^d 12^h to 14^h Wave in H.F. (- .0019). 17^h to 18^h Wave in H.F. (- .0013). 17^h to 18^h Wave in Dec. (- 5'). 21^h to 22^h Wave in H.F. (+ .0011).
- 25^d 0^h to 1^h Wave in H.F. (+ .0014). 11^h to 12^h Wave in H.F. (- .0014). 16^h to 17^h Irregular sharp wave in Dec. (- 10'), followed till 17^h by a wave (- 4'). 16^h to 17^h Double wave in H.F. (- .0016 to + .0030). 18^h to 20^h Two successive waves in Dec. (- 7' and - 3'): 18^h to 19^h Wave in H.F. (+ .0016). 25^d 23^h to 26^d 1^h Wave in Dec. (+ 11'), steep at commencement: triple wave in H.F. (+ .0010, - .0008, + .0008). 25^d 23^h to 26^d 1^h Wave in V.F. (- .0004).
- 26^d 3^h to 6^h Double wave in H.F. (+ .0016 to - .0014). 5^h to 6^h Wave in Dec. (+ 3'). 15^h to 17^h Irregular triple wave in H.F. (- .0012, + .0010, - .0020). 16^h to 18^h Two successive waves in Dec. (- 5' and - 10'). 22^h to 24^h Double wave in H.F. (- .0010 to + .0008). 26^d 22^h to 27^d 1^h Irregular triple wave in Dec. (- 4', + 4', - 4'). 26^d 23^h to 27^d 1^h Wave in V.F. (- .0004).
- 27^d 3^h to 5^h Wave in Dec. (+ 6'). 4^h to 5^h Double wave in H.F. (- .0009 to + .0009). 8^h to 12^h Flat-crested wave in H.F. (- .0025), with sharp superposed fluctuations. 11^h to 12^h Irregular wave in Dec. (+ 6'), followed till 14^h by an irregular double wave (+ 5' to - 3'), the first portion flat-crested. 13^h to 13^h Wave in H.F. (- .0015). 15^h to 17^h Irregular wave in Dec. (+ 3'). 16^h to 17^h Wave in H.F. (- .0015). 18^h to 19^h Sharp wave in Dec. (- 17'): in V.F. small. 18^h to 18^h Sharp increase in H.F. (+ .0025). 19^h to 19^h Very sharp wave in H.F. (- .0012). 21^h to 23^h Wave in H.F. (+ .0028). 22^h to 23^h Wave in Dec. (- 7').
- 28^d 0^h to 5^h Very irregular triple wave in H.F. (- .0022, + .0035, - .0018), with very sharp movements (\pm .0010), superposed on the central portion: irregular wave in V.F. (- .0012). 1^h to 2^h Sharp irregular wave in Dec. (+ 12'), continued till 2^h by two successive sharp waves (- 3' and - 3'), and followed till 3^h by a flat-crested wave (- 5'). 6^h to 8^h Irregular wave in H.F. (- .0015).
- 29^d 15^h to 16^h Wave in H.F. (- .0012). 19^h to 21^h Wave in Dec. (- 6'): in H.F. small. 22^h to 23^h Two successive waves in Dec. (+ 3' and + 3'). 22^h to 24^h Wave in H.F. (+ .0018).
- 30^d 1^h to 2^h Wave in Dec. (+ 4'). 14^h to 16^h Wave in H.F. (- .0020). 15^h to 16^h Wave in Dec. (- 7').

1910.

- November 2^d 8^h to 10^h Decrease in H.F. (− 0035). 10^h Very sharp wave in Dec. (+ 4'). 10^h to 11^h Waves in Dec. (+ 3'), and H.F. (+ 0011).
- 4^d 21^h to 22^h Wave in Dec. (− 6'). 21^h to 22^h Wave in H.F. (+ 0010).
- 5^d 1^h to 2^h Wave in Dec. (− 3').
- 7^d 18^h to 19^h Double-crested wave in Dec. (− 5'): small double wave in H.F.
- 8^d 15^h to 17^h Wave in Dec. (− 12'). 15^h to 16^h Truncated wave in H.F. (− 0019). 17^h to 19^h Irregular wave in Dec. (− 9'), steep at commencement. 17^h to 18^h Sharp double wave in H.F. (− 0014 to + 0018). 20^h to 21^h Double-crested wave in Dec. (− 5'). 20^h to 22^h Irregular wave in H.F. (+ 0035). 22^h to 23^h Irregular wave in Dec. (− 5'). 23^h to 24^h Wave in H.F. (− 0011).
- 9^d 1^h to 2^h Wave in H.F. (+ 0013). 1^h to 2^h Wave in Dec. (+ 3'). 12^h to 12^h Wave in Dec. (+ 3'). 18^h to 20^h Irregular wave in Dec. (− 7'). 18^h to 20^h Double wave in H.F. (− 0010 to + 0010), followed till 22^h by another double wave (− 0012 to + 0020), the second portion double-crested. 20^h to 23^h Irregular triple-crested wave in Dec. (− 7'), followed till 10^d 0^h by another wave (− 3').
- 10^d 17^h to 18^h Double-crested waves in Dec. (− 6'), and H.F. (+ 0019). 20^h to 22^h Double wave in H.F. (− 0010 to + 0012), the second portion double-crested. 20^h to 21^h Sharp increase in Dec. (+ 3'), followed till 22^h by a flat-crested wave (− 6'), steep at commencement.
- 11^d 0^h to 3^h Slow wave in H.F. (+ 0015).
- 15^d 17^h to 19^h Wave in Dec. (− 3').
- 16^d 4^h to 7^h Flat-crested wave in Dec. (+ 4'). 6^h to 7^h Wave in H.F. (+ 0013). 21^h to 22^h Decrease in Dec. (− 4'). 16^d 23^h to 17^d 1^h Irregular wave in Dec. (− 8'), steep at commencement. 16^d 23^h to 17^d 0^h Wave in H.F. (+ 0028).
- 17^d 1^h to 2^h Wave in Dec. (− 3'). 2^h to 4^h Wave in Dec. (+ 7'). 3^h to 4^h Wave in H.F. (+ 0017). 3^h to 4^h Decrease in V.F. (− 0004). 4^h to 5^h Wave in Dec. (+ 3'). 12^h to 12^h Flat-crested wave in Dec. (+ 3'). 12^h to 14^h Two successive waves in H.F. (− 0016 and − 0010). 13^h to 15^h Double-crested wave in Dec. (− 4'). 15^h to 16^h Irregular wave in H.F. (− 0030), steep at end. 16^h to 17^h Wave in Dec. (− 11'). 19^h to 20^h Two successive waves in Dec. (− 4' and − 5'), the second sharp, followed till 22^h by an irregular flat-crested wave (− 5'). 19^h to 20^h Wave in H.F. (+ 0015), followed till 22^h by an irregular double wave (+ 0030 to − 0012), steep at commencement, the first portion double-crested. 20^h to 22^h Irregular wave in V.F. (− 0003).
- 18^d 0^h to 1^h Double wave in Dec. (− 4' to + 6'). 0^h to 2^h Double wave in H.F. (− 0010 to + 0010). 1^h to 1^h Decrease in V.F. (− 0004). 9^h to 10^h Decrease in H.F. (− 0014). 12^h to 13^h Wave in Dec. (+ 4'). 14^h to 15^h Sharp wave in H.F. (− 0035). 14^h to 18^h Three successive sharp irregular waves in Dec. (− 17', − 14' and − 8'), the last flat-crested, superposed on a general decrease (− 12'). 14^h to 16^h Wave in V.F. (+ 0004). 15^h to 17^h Irregular triple wave in H.F. (− 0030, + 0022, − 0013), the intermediate portion steep. 18^h to 20^h Slow wave in H.F. (− 0014). 20^h to 21^h Sharp wave in Dec. (− 12'). 20^h to 22^h Sharp wave in H.F. (+ 0034). 20^h to 24^h Wave in V.F. (− 0004).
- 19^d 16^h to 17^h Double-crested wave in Dec. (− 3'), followed till 18^h by an irregular sharp double-crested wave (− 16'). 16^h to 19^h Irregular double wave in V.F. (+ 0003 to − 0003). 16^h to 19^h Irregular triple wave in H.F. (− 0012, + 0047, − 0010), the second and third portions double-crested.
- 20^d 17^h to 17^h Double-crested wave in Dec. (− 3'). 18^h to 19^h Sharp wave in Dec. (− 8'), followed till 19^h by a decrease (− 4'). 18^h to 18^h Wave in H.F. (− 0013). 20^d 23^h to 21^d 2^h Irregular double wave in Dec. (− 4' to + 7'), the second portion double-crested: small waves in H.F. 20^d 23^h to 21^d 4^h Double-crested wave in V.F. (− 0004).
- 21^d 16^h to 17^h Wave in Dec. (− 3'). 21^h to 22^h Wave in H.F. (+ 0015).
- 22^d 17^h to 19^h Irregular wave in Dec. (− 6'): two small waves in H.F. 21^h to 22^h Wave in Dec. (− 3').
- 23^d 20^h to 21^h Wave in Dec. (− 4').
- 25^d 18^h to 21^h Irregular triple-crested wave in Dec. (− 7'), followed till 23^h by a wave (− 6'): small waves in H.F.
- 26^d 0^h to 1^h Wave in Dec. (− 6'). 22^h to 23^h Wave in H.F. (+ 0010).
- 27^d 18^h to 20^h Irregular triple-crested wave in Dec. (− 4'): irregular double-crested wave in H.F. (+ 0016). 21^h to 22^h Wave in Dec. (− 3').

1910.

November 28^d 0^h to 3^h Wave in V.F. (- '0003). 0^h to 1^h Wave in H.F. (+ '0015). 1^h to 2^h Wave in Dec. (- 4').
 14^h to 15^h Irregular decrease in H.F. (- '0020). 16^h to 18^h Sharp wave in Dec. (- 9'). 16^h to
 17^h Truncated wave in H.F. (- '0013). 20^h to 21^h Irregular decrease in Dec. (- 5') and H.F.
 (- '0017).

29^d 11^h to 13^h Wave in Dec. (+ 5'). 14^h to 15^h Decrease in H.F. (- '0012). 17^h to 18^h Wave in Dec.
 (- 3'), followed till 18^h by a sharp decrease (- 7'). 18^h to 18^h Wave in H.F. (- '0014). 20^h to
 21^h Irregular wave in H.F. (+ '0023). 20^h to 22^h Decrease in V.F. (- '0004). 21^h to 23^h Sextuple-
 crested wave in Dec. (- 7'), followed till 30^d 1^h by an irregular triple wave (- 3', + 3', - 3'). 22^h to
 23^h Irregular wave in H.F. (- '0017). 29^d 23^h to 30^d 1^h Irregular wave in V.F. (- '0004). 29^d 23^h
 to 30^d 0^h Double-crested wave in H.F. (+ '0029).

30^d 18^h to 20^h Irregular wave in Dec. (- 7'). 18^h to 19^h Wave in H.F. (- '0010). 19^h to 20^h Wave
 in H.F. (- '0010). 22^h to 23^h Two successive waves in Dec. (- 3' and - 4'): small double wave
 in H.F.

December 1^d 0^h to 3^h Irregular double wave in Dec. (- 4' to + 4'), the first portion double-crested. 1^d 23^h to 2^d 0^h
 Wave in Dec. (- 4').

2^d 14^h to 16^h Irregular double wave in Dec. (+ 4' to - 3'). 14^h to 16^h Wave in H.F. (- '0028). 17^h
 to 18^h Double-crested wave in H.F. (- '0023). 18^h to 19^h Irregular wave in Dec. (- 13'), steep at
 commencement. 2^d 23^h to 3^d 1^h Small triple wave in Dec. (- 2', + 2', - 2'): steep wave in H.F.
 (+ '0030). 2^d 23^h to 3^d 0^h Decrease in V.F. (- '0003).

3^d 20^h to 21^h Two successive sharp waves in Dec. (- 4' and - 4'), followed till 23^h by an irregular double-
 crested wave (- 7'). 20^h to 23^h Two successive waves in H.F. (+ '0024 and + '0024), the first portion
 irregular.

4^d 19^h to 22^h Two successive slow waves in H.F. (- '0012 and - '0010). 19^h to 21^h Flat-crested wave
 in Dec. (- 7').

5^d 18^h to 21^h Two successive irregular double-crested waves in Dec. (- 6' and - 6'). 18^h to 20^h Double-
 crested wave in H.F. (+ '0012). 5^d 23^h to 6^d 0^h Double wave in Dec. (+ 3' to - 3').

6^d 0^h to 1^h Irregular wave in H.F. (+ '0016). 1^h to 2^h Wave in Dec. (+ 3'). 20^h to 22^h Wave in
 H.F. (+ '0020). 20^h to 21^h Sharp wave in Dec. (- 5'). 6^d 23^h to 7^d 0^h Wave in Dec. (+ 7'),
 followed till 2^h by an irregular increase (+ 11'). 6^d 23^h to 7^d 1^h Wave in H.F. (+ '0022). 6^d 23^h to
 7^d 0^h Decrease in V.F. (- '0003).

7^d 8^h to 9^h Wave in H.F. (- '0015). 8^h to 9^h Sharp wave in Dec. (- 4'). 17^h to 18^h Flat-crested
 wave in Dec. (- 3'). 22^h to 23^h Wave in H.F. (+ '0011).

8^d 21^h to 22^h Flat-crested wave in Dec. (- 3'). 21^h to 23^h Wave in H.F. (+ '0012).

10^d 23^h to 11^d 0^h Wave in Dec. (- 3'): in H.F. small.

11^d 17^h to 18^h Wave in Dec. (- 3').

13^d 5^h to 6^h Wave in Dec. (+ 5'). 5^h to 7^h Wave in H.F. (+ '0015). 15^h to 18^h Irregular wave in
 H.F. (- '0023). 16^h to 17^h Wave in Dec. (- 4'). 22^h to 24^h Double wave in Dec. (- 14' to + 7').
 22^h to 24^h Wave in V.F. (+ '0003). 13^d 22^h to 14^d 0^h Double wave in H.F. (- '0008 to + '0010).

14^d 2^h to 3^h Double-crested wave in Dec. (+ 6'). 2^h to 2^h Wave in H.F. (- '0015).

15^d 1^h to 2^h Waves in Dec. (+ 5') and H.F. (+ '0012), both steep at commencement. 5^h to 7^h Double
 wave in H.F. (+ '0013 to - '0010). 9^h to 9^h Decrease in H.F. (- '0012). 13^h to 15^h Long
 hollow-crested wave in Dec. (+ 5'). 13^h to 16^h Irregular wave in H.F. (- '0030). 22^h to 23^h
 Wave in Dec. (- 3'). 15^d 23^h to 16^d 0^h Wave in H.F. (+ '0018).

16^d 1^h to 3^h Irregular wave in Dec. (+ 4'). 2^h to 2^h Wave in H.F. (+ '0010). 20^h to 21^h Wave in
 Dec. (- 4').

18^d 19^h to 21^h Wave in Dec. (- 7'). 18^d 23^h to 19^d 0^h Wave in H.F. (+ '0015). 18^d 23^h to 19^d 1^h
 Wave in Dec. (- 4').

19^d 14^h to 16^h Flat-crested wave in Dec. (- 4').

20^d 11^h to 13^h Wave in H.F. (- '0011).

21^d 15^h to 16^h Irregular wave in H.F. (- '0011). 19^h to 19^h Wave in Dec. (- 3').

1910.

- December 22^d 1^h to 2^h Wave in Dec. (+ 6'). 1^h to 2^h Flat-crested wave in H.F. (+ .0013). 1^h to 2^h Decrease in V.F. (- .0003). 8^h to 10^h Wave in H.F. (- .0017), with superposed fluctuations. 12^h to 14^h Flat-crested wave in H.F. (- .0012). 13^h to 13^h Wave in Dec. (- 3'). 14^h to 16^h Irregular wave in Dec. (+ 4'), followed till 17^h by a double wave (+ 3' to - 6'). 17^h to 18^h Wave in H.F. (+ .0017). 18^h to 20^h Two successive waves in Dec. (- 4' and - 7'). 20^h to 21^h Wave in H.F. (+ .0021). 21^h to 23^h Irregular wave in Dec. (- 5').
- 23^d 6^h to 7^h Waves in Dec. (+ 3') and H.F. (- .0010).
- 24^d 0^h to 1^h Irregular double-crested wave in H.F. (+ .0013): in Dec. small. 19^h to 21^h Irregular wave in Dec. (- 11'), the first portion steep: irregular double wave in H.F. (+ .0012 to - .0010).
- 25^d 1^h to 2^h Wave in Dec. (+ 4'). 12^h to 14^h Wave in H.F. (- .0015). 17^h to 18^h Wave in Dec. (- 3'). 20^h to 22^h Double-crested wave in Dec. (- 5'), followed till 23^h by a wave (- 3'). 22^h to 24^h Wave in H.F. (+ .0017).
- 26^d 1^h to 2^h Wave in Dec. (+ 3').
- 28^d 6^h to 20^d 6^h See Plate III.
- 29^d 10^h to 12^h Double-crested wave in H.F. (- .0019). 11^h to 12^h Wave in Dec. (+ 5'). 13^h to 15^h Irregular wave in Dec. (- 5'). 16^h to 17^h Wave in H.F. (- .0018). 16^h to 18^h Flat-crested wave in Dec. (- 6'), steep at commencement. 20^h to 22^h Irregular wave in Dec. (- 10'), the first portion steep. 20^h to 21^h Sharp wave in H.F. (+ .0027). 29^d 23^h to 30^d 1^h Wave in Dec. (+ 7'). 29^d 23^h to 30^d 0^h Sharp wave in H.F. (+ .0015).
- 30^d 10^h to 14^h Loss of Dec., H.F. and V.F. registers. 21^h to 22^h Sharp wave in Dec. (- 8'). 21^h to 23^h Wave in H.F. (+ .0026).
- 31^d 13^h to 14^h Wave in H.F. (- .0014). 19^h to 20^h Sharp wave in Dec. (- 8'): small double wave in H.F.

EXPLANATION OF THE PLATES.

The magnetic motions figured on the Plates are :—

- (1.) Those for days of lesser disturbance—March 27-28, 28-29, June 20, August 22, September 29, December 28^d 6^h to 29^d 6^h.
- (2.) Those for four quiet days—February 6, May 12, August 8, November 13—which are given as types of the ordinary diurnal movement at four seasons of the year.

The time is Greenwich Civil Time (commencing at midnight, and counting the hours from 0 to 24).

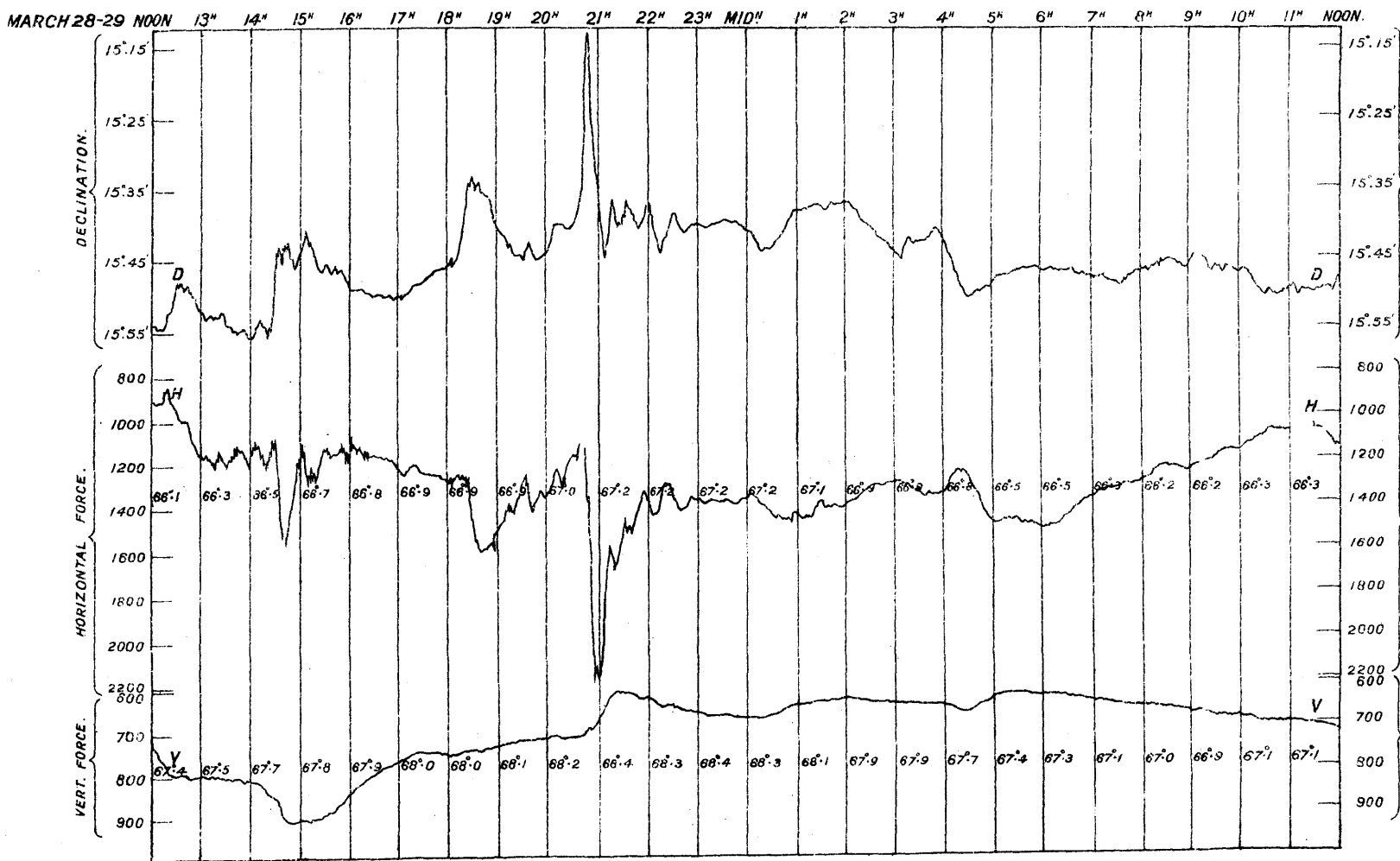
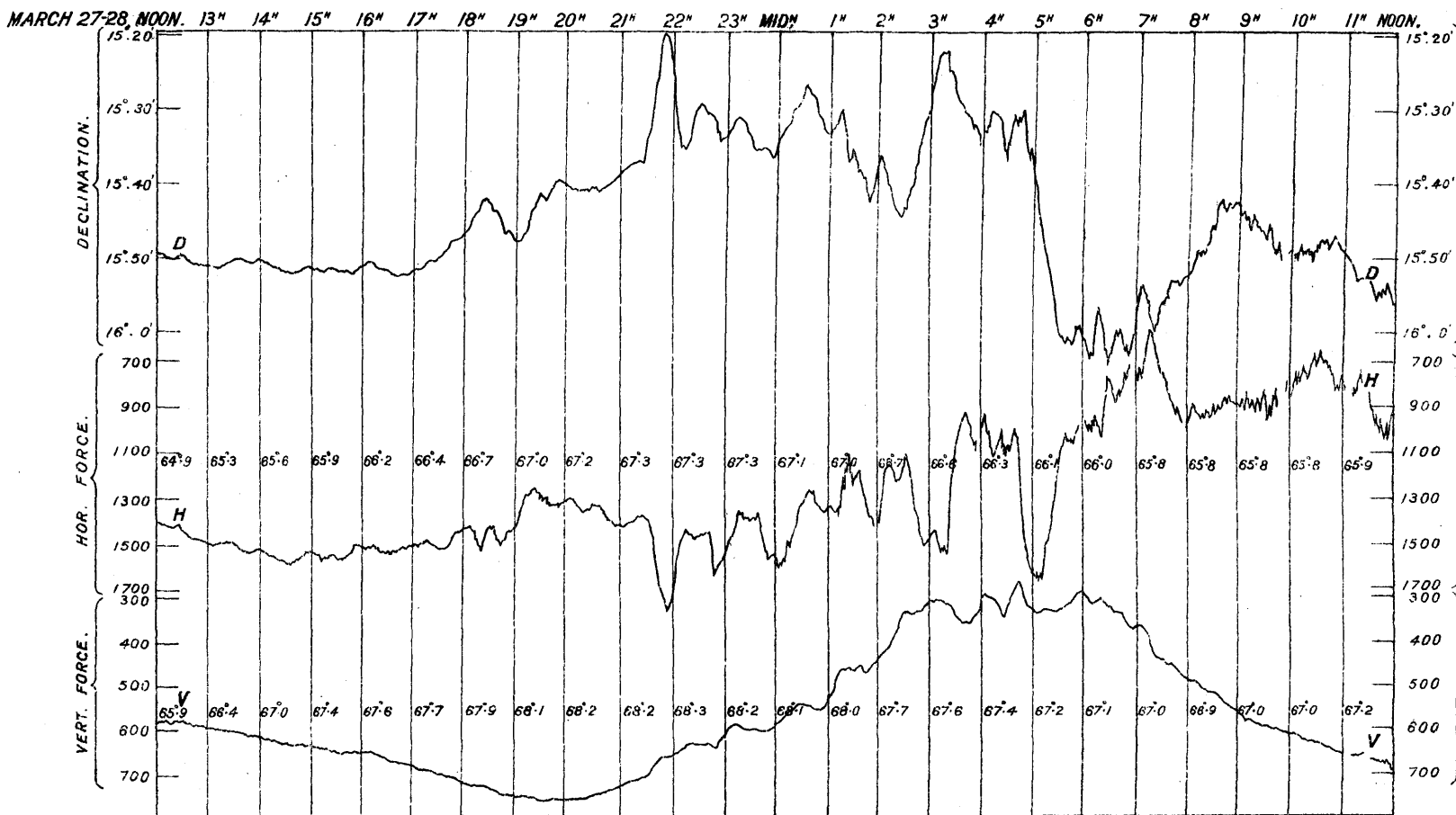
The magnetic declination, horizontal force, and vertical force are indicated by the letters D., H., and V. respectively; the declination (west) is expressed in minutes of arc, the units for horizontal and vertical force are $\cdot 00001$ of the whole horizontal and vertical forces respectively, the corresponding scales being given on the sides of each diagram. Equal changes of amplitude in the several registers correspond nearly to equal changes of absolute magnetic force, $0\cdot 001$ of a C.G.S. unit being represented by $0^{\text{in}}\cdot 80 = 20\cdot 2$ in the declination curve, by $0^{\text{in}}\cdot 73 = 18\cdot 4$ in the horizontal force curve, and by $0^{\text{in}}\cdot 59 = 15\cdot 1$ in the vertical force curve.

Downward motion indicates increase of declination and of horizontal and vertical force.

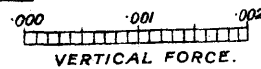
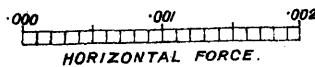
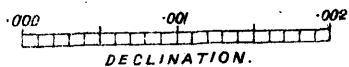
An arrow (\uparrow) indicates that the register was out of range of registration in the direction of the arrow head.

The temperatures (Fahrenheit) of the horizontal and vertical force magnets at each hour are given in small figures on the Diagrams.

**MAGNETIC DISTURBANCES RECORDED AT THE
ROYAL OBSERVATORY, GREENWICH, 1910.**

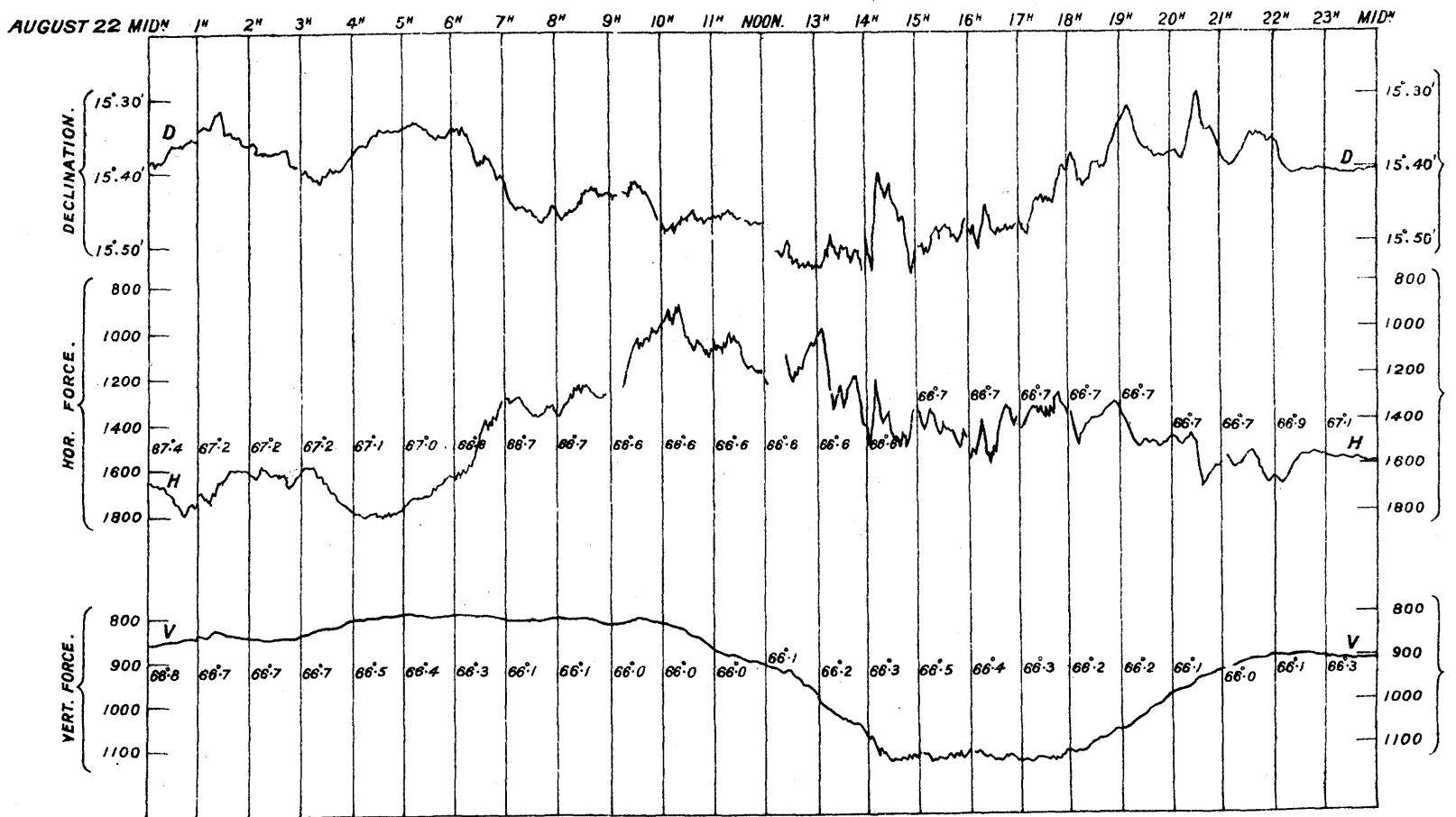
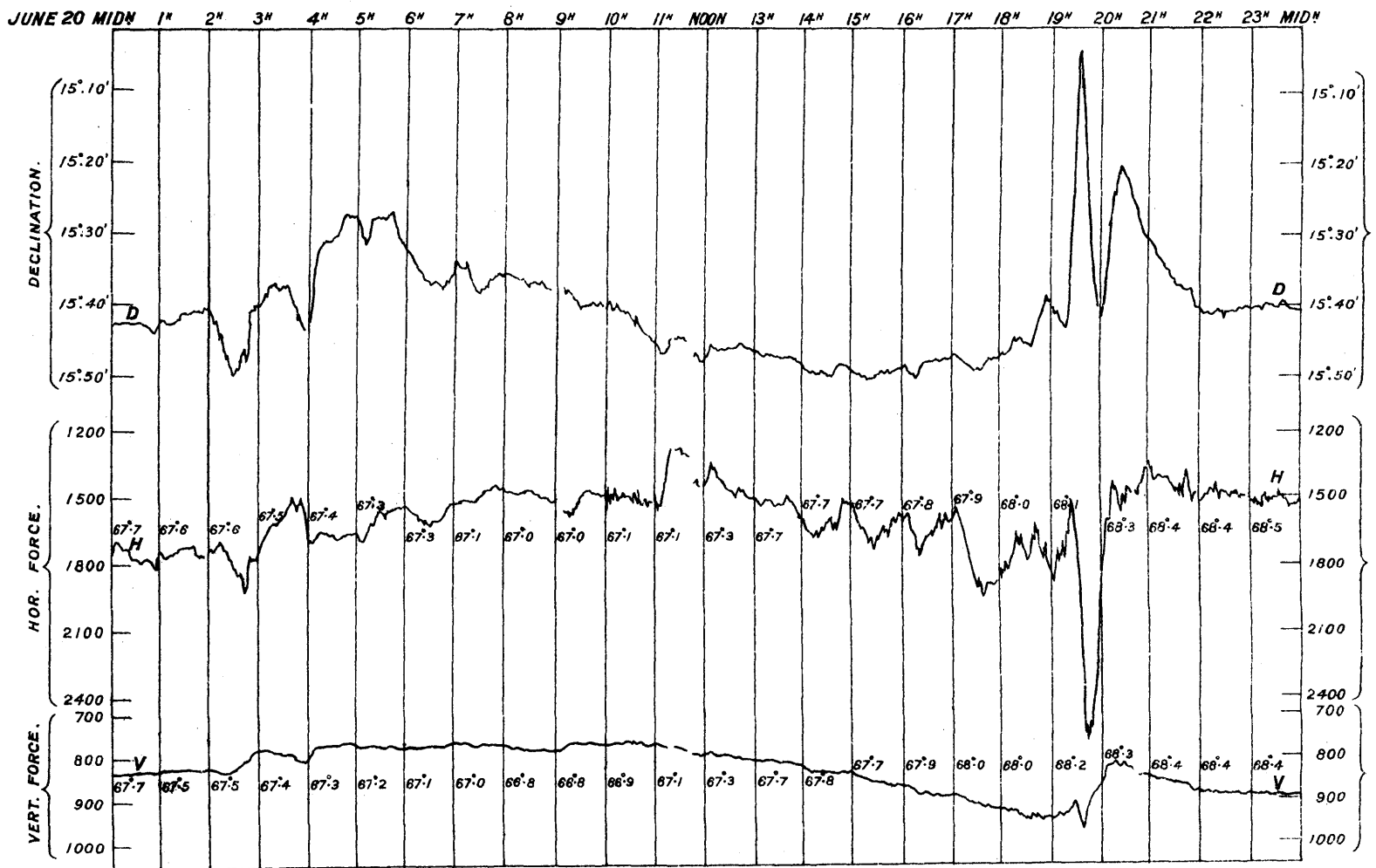


SCALES FOR MAGNETIC ELEMENTS IN C.G.S. MEASURE.

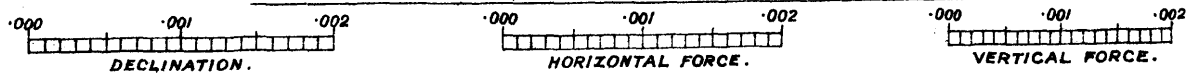




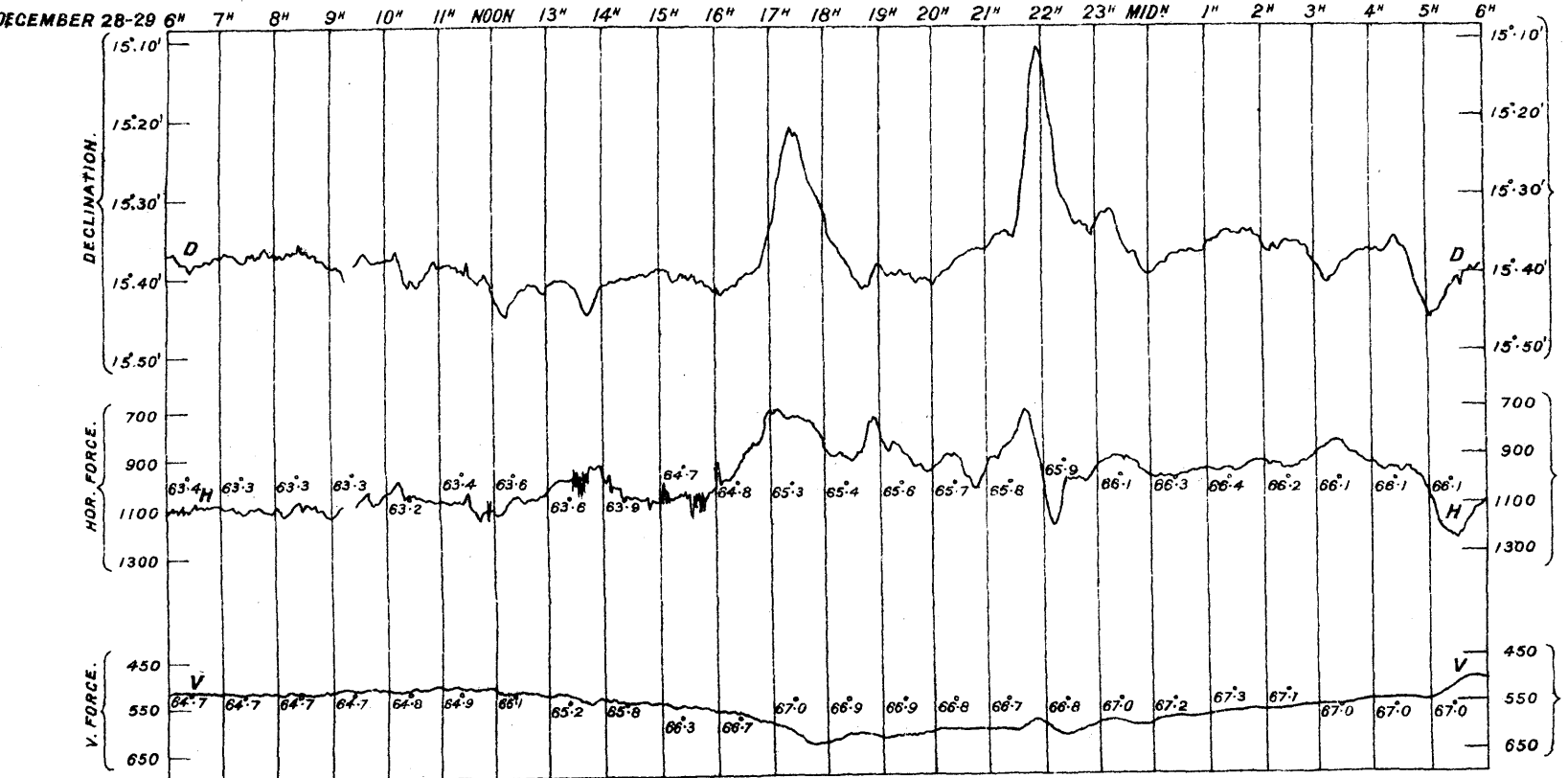
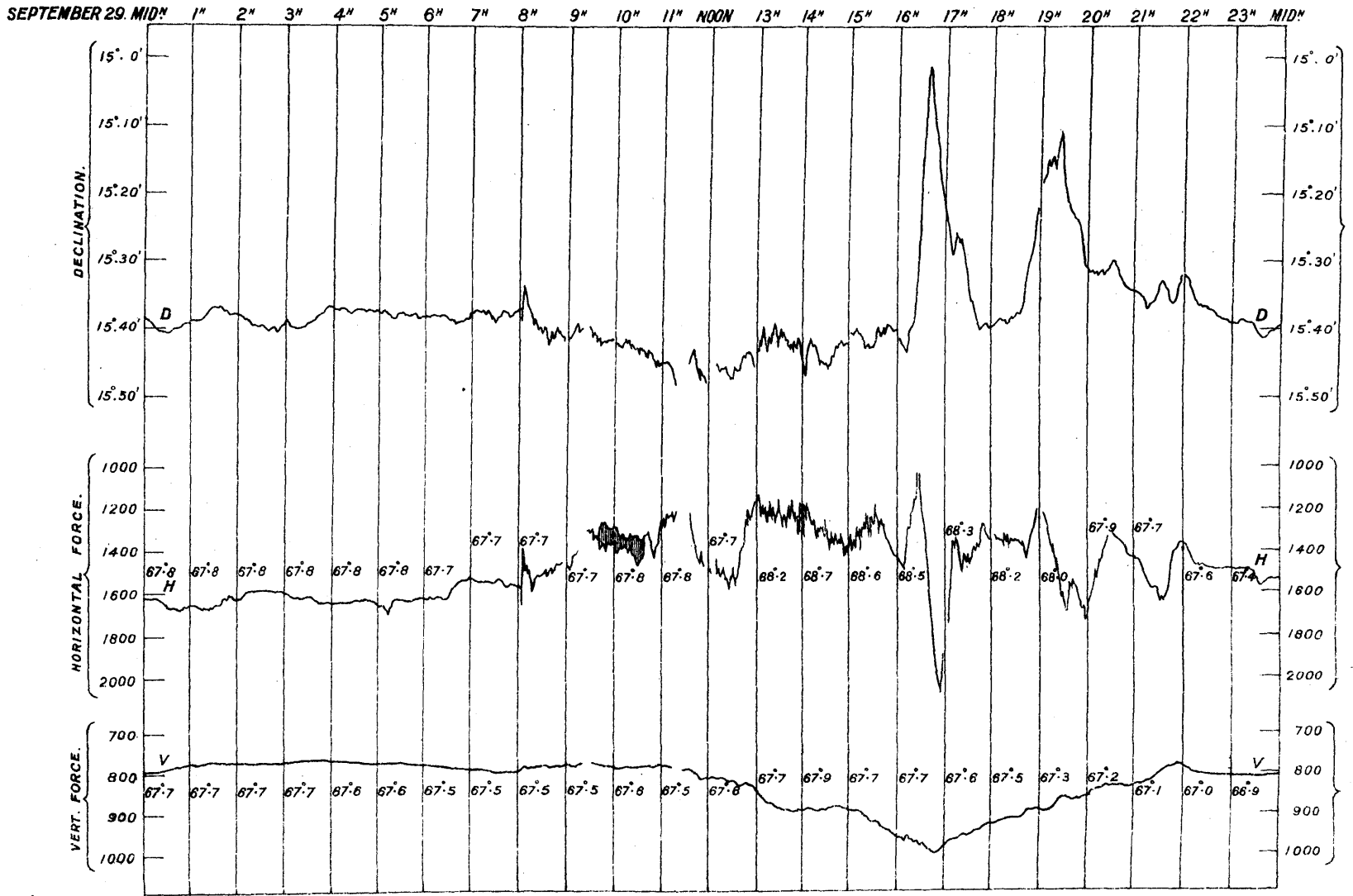
MAGNETIC DISTURBANCES RECORDED AT THE ROYAL OBSERVATORY, GREENWICH, 1910.



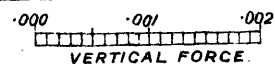
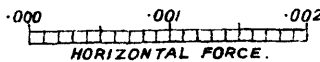
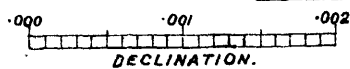
SCALES FOR MAGNETIC ELEMENTS IN C.G.S. MEASURE.



**MAGNETIC DISTURBANCES RECORDED AT THE
ROYAL OBSERVATORY, GREENWICH, 1910.**

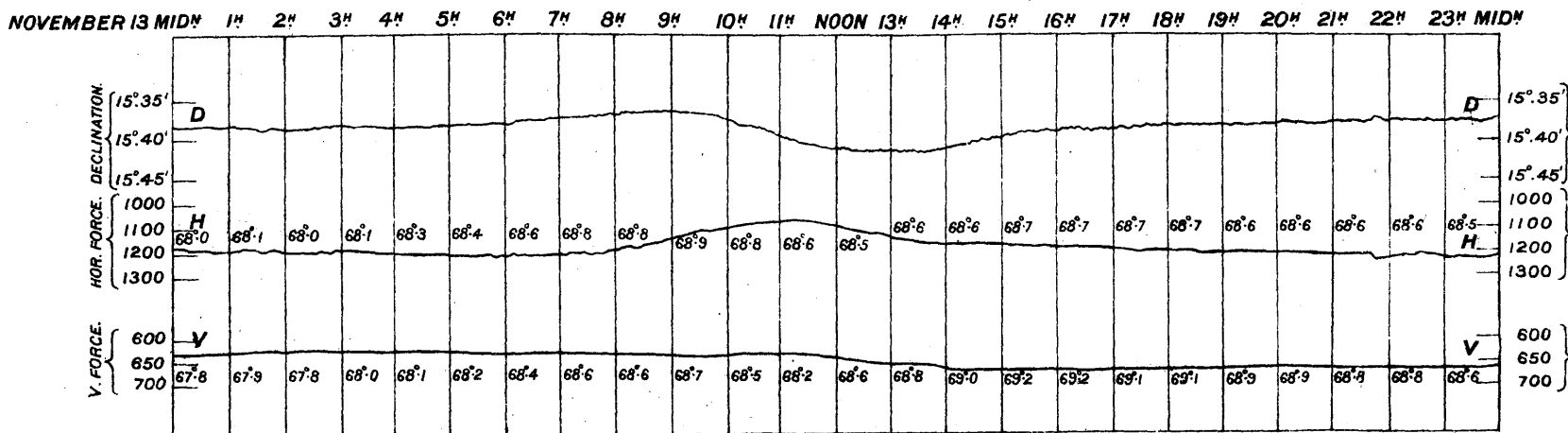
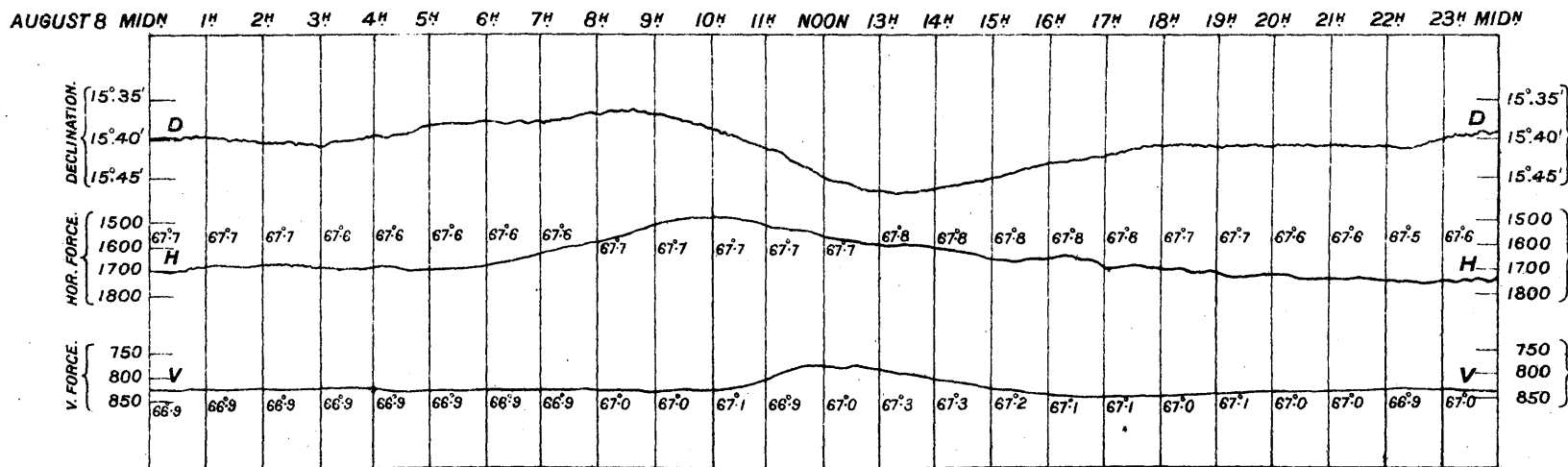
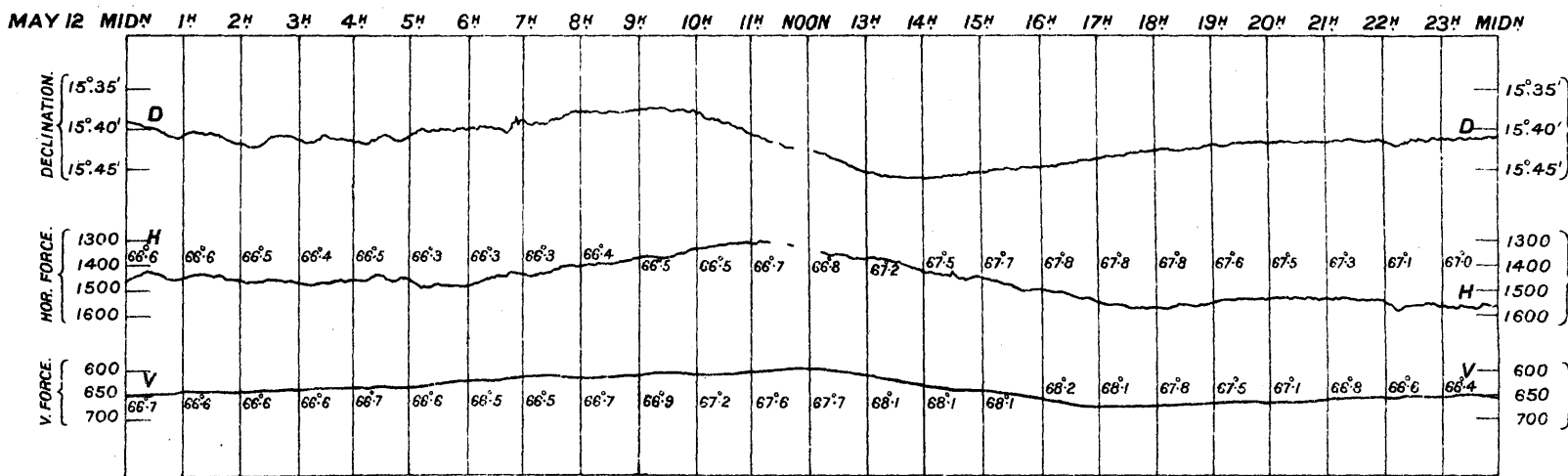
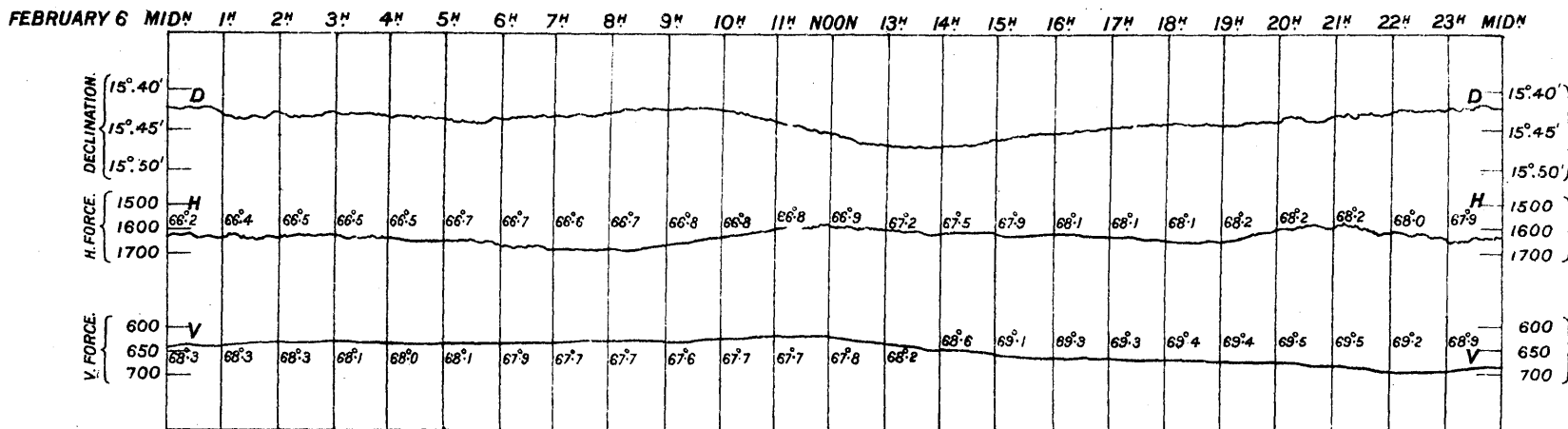


SCALES FOR MAGNETIC ELEMENTS IN C.G.S. MEASURE.

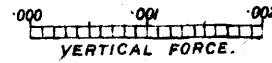
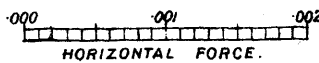
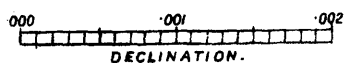




TYPES OF MAGNETIC DIURNAL VARIATIONS AT FOUR SEASONS OF THE YEAR RECORDED AT THE ROYAL OBSERVATORY, GREENWICH, 1910.



SCALES FOR MAGNETIC ELEMENTS IN C.G.S. MEASURE.





ROYAL OBSERVATORY, GREENWICH.

R E S U L T S

OF

METEOROLOGICAL OBSERVATIONS.

1910.

MONTH and DAY, 1910.	Phases of the Moon.	BARO- METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.		Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground.	Daily Amount of Ozone.	Electricity.
			Of the Air.					Of Evapora- tion.	Of the Dew Point.	Of Radiation.								
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.	Mean.	Greatest.	Least.		Highest in Sun's Rays.	Lowest on the Grass.			
Jan. 1	...	30.162	45.8	33.1	12.7	40.1	+ 1.5	38.8	37.1	3.0	6.2	1.1	90	52.1	26.2	0.070	0.0	mP : wP
2	...	30.136	55.3	45.8	9.5	50.0	+ 11.6	49.2	48.3	1.7	3.6	0.2	94	55.1	44.2	0.005	0.0	wwP
3	In Equator : Last Quarter	30.204	50.8	43.0	7.8	47.6	+ 9.3	46.1	44.4	3.2	4.8	1.3	89	50.6	37.2	0.000	0.0	wwP : wwP : wP
4	Apogee	30.275	45.2	39.1	6.1	43.0	+ 4.7	42.5	41.9	1.1	3.1	0.4	96	50.5	34.5	0.000	0.2	wP
5	...	30.272	42.0	39.0	3.0	40.9	+ 2.7	40.4	39.8	1.1	2.0	0.5	96	42.2	39.0	0.000	0.8	wP
6	...	30.362	41.3	36.7	4.6	38.9	+ 0.8	38.4	37.7	1.2	1.8	0.5	95	43.2	37.2	0.000	1.5	wP
7	...	30.375	40.7	37.8	2.9	38.9	+ 0.9	38.1	37.0	1.9	3.2	0.7	93	43.0	37.8	0.000	4.5	wP
8	...	30.022	47.8	38.4	9.4	42.9	+ 5.0	41.4	39.6	3.3	5.1	1.4	88	54.7	38.4	0.042	5.0	wP : wP : wP, wN
9	...	29.799	52.1	44.9	7.2	50.0	+ 12.1	48.4	46.7	3.3	5.4	1.9	89	54.9	38.0	0.000	14.0	wwP
10	Greatest Declination S.	29.876	52.2	43.1	9.1	47.9	+ 10.0	45.5	42.9	5.0	10.4	2.2	84	74.9	35.4	0.126	7.8	wwP : wP, mN : wP
11	New	29.686	45.3	36.7	8.6	42.1	+ 4.2	39.2	35.6	6.5	10.8	2.1	79	66.0	31.8	0.100	5.2	wP, wN : wP, wN : vP, vN
12	...	29.469	40.0	33.2	6.8	35.8	- 2.1	33.3	29.5	6.3	8.7	2.5	77	57.0	28.0	0.000	0.0	wP : mP : sP
13	...	29.978	44.2	31.0	13.2	37.2	- 0.8	35.1	32.2	5.0	7.4	2.8	82	48.0	24.1	0.008	1.5	mP
14	...	29.906	53.1	44.2	8.9	48.6	+ 10.6	46.5	44.3	4.3	8.2	1.5	85	65.7	41.0	0.020	4.5	wP
15	...	30.014	50.5	42.3	8.2	46.5	+ 8.4	45.0	43.3	3.2	5.0	1.9	90	52.0	35.1	0.040	1.5	wP : wP : wwP
16	...	29.729	53.0	42.4	10.6	49.4	+ 11.1	47.3	45.0	4.4	7.5	2.1	86	60.8	38.0	0.050	5.7	wwP : wwP : wP, wN
17	In Equator : Perigee	29.588	45.0	39.4	5.6	41.2	+ 2.7	38.8	35.8	5.4	8.1	2.8	82	57.9	33.4	0.044	6.0	wP : wP, vN : wP
18	First Quarter	29.315	47.0	39.7	7.3	43.4	+ 4.8	41.3	38.8	4.6	7.8	1.8	84	53.1	34.7	0.069	3.8	wP, mN : wP : vN, wP
19	...	29.305	44.0	37.8	6.2	41.1	+ 2.4	37.8	33.7	7.4	9.9	4.6	75	57.0	33.0	0.000	0.0	wP : mP : mP
20	...	29.419	42.1	34.1	8.0	38.0	- 0.8	35.8	32.8	5.2	8.5	2.7	81	46.0	29.4	0.000	0.0	mP
21	...	29.587	36.6	28.9	7.7	33.1	- 5.7	31.1	27.2	5.9	7.8	3.4	78	44.8	21.0	0.000	1.0	sP
22	...	29.771	34.6	26.9	7.7	31.1	- 7.7	28.8	22.7	8.4	11.6	2.6	69	50.8	17.9	0.000	0.0	mP : sP : sP
23	Greatest Declination N.	29.677	42.7	29.4	13.3	34.8	- 4.1	34.1	33.0	1.8	6.8	0.0	93	39.0	25.1	0.253	0.7	vP, mN : wP, vN
24	...	28.667	42.2	34.1	8.1	39.5	+ 0.6	37.8	35.6	3.9	6.9	1.5	86	59.0	32.0	0.318	2.3	vN, wwP : mP : mP, ssN
25	Full	28.909	36.9	26.5	10.4	33.4	- 5.7	30.4	24.7	8.7	12.0	4.5	70	57.1	21.6	0.000	4.0	wP, sN : mP : sP
26	...	29.025	33.0	23.8	9.2	28.5	- 10.8	26.4	18.4	10.1	12.7	3.7	64	50.7	18.6	0.000	0.0	sP
27	...	29.210	35.1	20.3	14.8	28.7	- 10.8	26.1	16.3	12.4	17.9	3.4	59	58.8	15.1	0.005	6.7	sP : sP : mP, mN
28	...	28.744	44.9	32.6	12.3	39.0	- 0.6	36.9	34.2	4.8	10.6	0.9	83	72.2	31.0	0.572	6.3	vP, vN : wP : vP, vN
29	...	29.167	41.0	32.3	8.7	36.0	- 3.7	33.2	29.0	7.0	9.7	4.2	76	66.8	28.7	0.000	4.0	wP : mP : mP
30	In Equator	29.706	38.0	29.1	8.9	34.1	- 5.6	31.8	27.8	6.3	7.9	1.3	77	41.8	13.4	0.000	0.0	mP : sP : sP
31	...	29.800	45.0	30.5	14.5	38.1	- 1.6	35.9	32.9	5.2	8.1	3.9	82	68.0	22.9	0.000	1.3	mP
Means	...	29.682	44.1	35.4	8.8	40.0	+ 1.4	38.1	35.1	4.9	7.7	2.1	83.0	54.6	30.4	1.722	2.8	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

The mean reading of the Barometer for the month was 29.682, being 0.112 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 55.3 on January 2; the lowest in the month was 20.3 on January 27; and the range was 35.0. The mean of all the highest daily readings in the month was 44.1, being 1.0 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 35.4, being 1.7 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 8.8, being 0.6 less than the average for the 65 years, 1841-1905. The mean for the month was 40.0, being 1.4 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Daily Duration of Sunshine. Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.								
			OSLER'S.			ROBIN-SON'S.										
			General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.									
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.										
Jan. 1	0.0	7.8	SW	SW : SSW	1.0	0.04	243	1, ho.-fr :	1, ho.-fr :	8, ci.-cu, cu	10	: 10, li.-shs	: 10, fq.-r			
2	0.9	7.9	SSW : SW	SW : WSW	1.2	0.08	283	10, m.-r :	10, oc.-m.-r :	10, s, slt.-m	p.-cl, ci.-cu, cu	p.-cl	: 10			
3	0.0	7.9	SW : WSW	WSW : SW	1.7	0.10	297	10	:	10, s	10, s, n	: p.-cl	: p.-cl, hy.-d			
4	0.0	7.9	WSW : Variable : Calm	Calm : S : SW	0.6	0.01	127	10	:	10, s	:	9, s, h	p.-cl, s, slt.-f :	10, s	: 10, oc.-m.-r	
5	0.0	7.9	SW : WSW	Variable : Calm : NE	0.4	0.01	128	10	:	10	:	10, oc.-m.-r	10, s, slt.-f, glm :	10	: 10	
6	0.0	8.0	NE : Calm : SE	Calm : SE : SSE	0.2	0.00	79	10, m	:	10, s, oc.-m.-r	10, s, n, oc.-m.-r	:	10, oc.-m.-r			
7	0.0	8.0	Calm : S : SSW	SSW : SW	0.3	0.02	162	10, slt.-m, oc.-r	:	10	:	10, s	10, s, n	: 10, s	: 10	
8	0.5	8.0	SW : SSW	SW : SSW	4.5	0.27	353	10	:	10	:	9, cu.-s	9, cu.-s, n	: 10	: p.-cl, oc.-r, w	
9	0.0	8.1	SW : SSW	SW : SSW	9.0	0.95	596	p.-cl	:	9	:	10, sc, n, w	10, sc, n, w	: 10, oc.-m.-r, w	: p.-cl, oc.-slt.-r, w	
10	4.2	8.1	SW : WSW	WSW : SSW : SW	8.6	0.68	543	10, r, w	:	10	:	8, cu.-s, n, sc	p.-cl, sh.-r	: 0	: 1, li.-cl	
11	4.7	8.1	SSW : SW : WSW	WSW : SW : SSW	11.0	1.02	629	p.-cl, slt.-r :	p.-cl, w	:	8, cu.-s, n, st.-w	v, sl, w	: p.-cl, r	: p.-cl, st.-w		
12	2.8	8.2	WSW : SW	WNW : WSW : NNW	4.3	0.30	399	1, ho.-fr :	p.-cl	:	p.-cl, ci.-s, n	8, cu, n	: p.-cl	: 0, h, ho.-fr		
13	2.9	8.2	WNW : WSW	WSW : SW	3.0	0.15	331	0, h, ho.-fr	:	0	:	10, cu.-s, li.-shs	10, sh.-r			
14	1.9	8.2	SW : WSW	W : WSW : SW	4.2	0.51	506	10, r	:	p.-cl	:	10, sc, n	p.-cl, ci.-s	: p.-cl, th.-cl		
15	0.0	8.2	WSW : W	SW : SSW	6.7	0.40	402	p.-cl	:	1, li.-cl	:	6, ci.-s, cu.-s	10, s, slt.-r	: 10, slt.-sh, w		
16	0.1	8.3	SW	SW : WSW	9.0	1.00	603	9, slt.-sh, w :	9	:	10, n, st.-w	10, slt.-sh, st.-w	: 10, fq.-shs, w	: 9		
17	3.4	8.3	SW	WSW : SW	5.2	0.50	495	p.-cl	:	1	:	7, ci.-s, r	p.-cl, fq.-r, so.-ha :	ci.-s, lu.-ha	: 9	
18	0.0	8.4	SW : WSW : W	WSW : W	5.7	0.60	522	p.-cl, slt.-r	:	10, s, n, w	10, s, n	: 10, sc, s, slt.-r	10, sh.-r			
19	1.3	8.4	W : WSW	WSW : SW	4.5	0.51	512	9	:	9	:	7, ci.-s	8, ci.-s, cu.-s :	p.-cl, ci.-s	: 0	
20	0.0	8.5	WSW : SW	W : NW	2.5	0.16	319	0, ho.-fr :	p.-cl	:	10, ci.-s, cu.-s	10, cu.-s	: 9	: p.-cl		
21	0.5	8.5	NW : W : NNW	NNW : N : Calm	1.0	0.04	169	1, h, ho.-fr :	p.-cl	:	9, cu.-s, th.-cl	8, cu, th.-cl	:	f, ho.-fr		
22	5.5	8.6	N : NNW	NNW : NW	3.2	0.28	304	p.-cl, h, ho.-fr :	p.-cl	:	4, th.-cl	1, li.-cl, h	: 0, ho.-fr	: 1, ho.-fr		
23	0.0	8.6	W : S : WSW	SW : SSE : SSW	5.9	0.08	260	9, sn	:	10	:	10	10, r	: 10, r, sn, sl	: 10, r, sn, sl, sq	
24	0.2	8.7	SW : SSW : WSW	W : NW : NNW	5.9	0.41	448	10, c.-r	:	10, r	:	9, sc	7, ci.-s, n	: 9, r, sn, sl	: 10, sl, w	
25	3.8	8.7	NNW	NNW : NW	11.5	1.18	545	9, st.-w	:	10, st.-w	:	9, oc.-sn, w	p.-cl, cu.-s, w :	1	: 1, ho.-fr	
26	4.7	8.7	NNW : N	N : NNW	0.7	0.02	181	1, h, ho.-fr :	th.-cl, h	:	4, th.-cl	1, th.-cl	:	1, th.-cl, ho.-fr		
27	4.2	8.8	NNW : W : SW	SSW : S : SSE	4.5	0.13	248	h, ho.-fr	:	2, h	1	:	p.-cl, oc.-sn	: 10, slt.-sn		
28	3.9	8.9	SSE : S : SW	SW : SSW : WNW	12.3	0.86	567	10, sn, r	:	10, c.-r, w	:	p.-cl, r, st.-w	3, ci.-s, w	: v, hy.-sh, l	: 10, slt.-r, w	
29	2.7	8.9	W : WSW	WSW : W	7.0	0.65	544	p.-cl, w	:	1, ho.-fr	:	p.-cl, ci.-s, cu, so.-ha, prh	p.-cl, ci.-s, cu, n, w :	9, cu, n	: p.-cl	
30	1.8	9.0	W : WSW : SW	WSW : W : SW	1.3	0.05	244	p.-cl, ho.-fr :	1, h, slt.-f :	1, slt.-f	2	:	0, ho.-fr			
31	3.6	9.0	SW : SSW	SSW : S	3.0	0.11	302	0, ho.-fr	:	1	:	5, ci.-s, so.-ha	8, ci.-s, so.-ha :	p.-cl	: 10	
Means	1.7	8.3	0.36	366									
Number of Column for Reference.	19	20	21	22	23	24	25					26				27

The mean *Temperature of Evaporation* for the month was 38°.1, being 0°.9 higher than
 The mean *Temperature of the Dew Point* for the month was 35°.1, being 0°.2 lower than
 The mean *Degree of Humidity* for the month was 83.0, being 5.0 less than
 The mean *Elastic Force of Vapour* for the month was 0.12204, being 0.002 less than
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 28.4, being the same as
 The mean *Weight of a Cubic Foot of Air* for the month was 550 grains, being 4 grains less than
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7.3.
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.207. The maximum daily amount of *Sunshine* was 5.5 hours on January 22.
 The highest reading of the *Solar Radiation Thermometer* was 74°.9 on January 10; and the lowest reading of the *Terrestrial Radiation Thermometer* was 13°.4 on January 30.
 The mean daily distribution of *Ozone* for the 12 hours ending 9^h was 2.0; for the 6 hours ending 15^h was 0.4; and for the 6 hours ending 21^h was 0.4.
 The *Proportions of Wind* referred to the cardinal points were N. 3, E. 0, S. 11, and W. 15. Two days were calm.
 The *Greatest Pressure of the Wind* in the month was 12.3 lbs. on the square foot on January 28. The mean daily *Horizontal Movement of the Air* for the month was 366 miles; the greatest daily value was 629 miles on January 11; and the least daily value was 79 miles on January 6.
Rain (0.1005 or over) fell on 15 days in the month, amounting to 1.722, as measured by gauge No. 6 partly sunk below the ground; being 0.159 less than the average fall for the 65 years, 1841-1905.

} the average for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Phases of the Moon.	BARO- METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.		Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
			Of the Air.				Of Evapo- ration. Mean of 24 Hourly Values.	Of the Dew Point. De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Of Radiation.						
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.						Excess above Average of 65 Years.		Highest in Sun's Rays.	Lowest on the Grass.			
Feb. 1	Apogee	29.689	45.0	35.2	9.8	38.8	- 0.8	36.6	33.6	5.2	9.0	2.8	83	79.5	30.4	0.000	6.2	wP : mP : mP
2	Last Quarter	29.255	40.3	35.3	5.0	37.2	- 2.3	36.4	35.3	1.9	3.3	1.2	93	44.8	30.0	0.036	8.5	wP, wN : wP, vN : mP
3	...	29.146	42.0	31.0	11.0	36.6	- 2.9	35.8	34.7	1.9	5.1	0.5	93	51.0	25.3	0.019	0.0	wP : mP : mP
4	...	29.526	42.0	29.1	12.9	35.6	- 3.9	33.7	30.8	4.8	8.4	0.6	82	59.0	22.4	0.006*	0.0	mP : mP : sP
5	...	29.820	50.7	27.5	23.2	40.8	+ 1.2	39.9	38.8	2.0	3.8	0.9	93	50.5	20.8	0.021	4.7	mP : wP
6	...	29.677	53.2	49.4	3.8	50.9	+ 11.3	49.8	48.7	2.2	3.4	0.8	92	62.0	46.1	0.109	3.5	wwP
7	Greatest Declination S.	29.382	54.0	44.0	10.0	50.6	+ 11.1	48.4	46.1	4.5	7.0	1.3	85	62.9	39.0	0.102	4.8	wwP : wwP : wP
8	...	29.392	44.9	34.9	10.0	40.6	+ 1.3	38.8	36.5	4.1	6.4	2.5	86	53.9	31.0	0.047	0.0	wP : wP, wwN : wP
9	...	30.053	41.2	28.6	12.6	34.2	- 4.9	32.5	29.6	4.6	8.3	2.0	82	68.5	21.3	0.002*	0.0	wP : wP : mP
10	New	30.070	46.0	28.6	17.4	39.8	+ 0.9	37.9	35.4	4.4	7.9	0.7	85	73.2	21.7	0.051	9.2	wP
11	...	29.852	50.0	34.7	15.3	41.4	+ 2.6	39.7	37.6	3.8	10.1	0.7	87	83.1	29.3	0.063	0.8	wP
12	Perigee	29.883	44.7	29.1	15.6	38.0	- 0.8	35.8	32.8	5.2	8.8	2.7	81	66.1	23.3	0.006	0.0	wP : mP : wP
13	In Equator	29.886	53.0	41.3	11.7	45.0	+ 6.0	43.4	41.5	3.5	8.4	0.4	88	78.4	37.0	0.024	3.5	wwP : wwP : wwP, wwN
14	...	29.542	45.0	36.6	8.4	40.3	+ 1.0	38.0	35.0	5.3	11.2	1.4	82	63.9	28.8	0.040	4.7	wwP, wwN : vP : vP
15	...	28.972	47.8	33.8	14.0	41.7	+ 2.3	39.3	36.3	5.4	12.2	1.5	82	68.5	29.3	0.414	0.8	vN, wP : wP : ssN, mP
16	First Quarter	29.349	47.7	32.1	15.6	40.0	+ 0.5	37.5	34.2	5.8	12.2	2.2	80	86.2	27.8	0.012	1.7	wP
17	...	29.293	56.0	45.6	10.4	49.7	+ 10.1	47.2	44.5	5.2	12.2	1.7	83	88.5	41.6	0.036	12.8	wwP : wP
18	...	29.296	52.8	41.9	10.9	47.9	+ 8.4	45.7	43.3	4.6	9.2	1.9	86	81.6	35.1	0.148	11.5	wwN, wwP : wP, wwN : wP
19	Greatest Declination N.	29.034	53.9	42.0	11.9	48.8	+ 9.3	45.9	42.8	6.0	8.6	2.6	80	85.0	35.1	0.017	7.5	wwP : wwP : wP
20	...	29.037	50.3	40.6	9.7	45.3	+ 5.8	42.2	38.6	6.7	13.0	3.6	78	84.0	34.0	0.365	14.0	wP : vP, vN
21	...	29.233	49.8	39.8	10.0	45.0	+ 5.4	41.4	37.2	7.8	11.7	2.0	74	85.8	32.0	0.020	5.7	wP : wP, sN : wP
22	...	29.594	46.8	39.1	7.7	42.9	+ 3.2	41.8	40.5	2.4	3.8	1.6	91	54.8	30.8	0.134	5.8	wP : wP, vN : wP
23	...	29.702	50.6	33.6	17.0	41.3	+ 1.5	39.5	37.2	4.1	12.4	1.4	86	90.4	27.5	0.313	5.0	vP, vN : vP : vP, ssN
24	Full	29.506	47.0	31.3	15.7	41.4	+ 1.4	39.0	36.0	5.4	13.0	1.6	82	78.0	27.0	0.210	7.2	wP, wN : vN, vP : mP
25	...	29.310	50.0	35.9	14.1	42.4	+ 2.3	40.7	38.7	3.7	6.5	1.1	87	74.3	29.8	0.297	3.8	wP, vN : wP, vN : mP
26	In Equator	29.106	48.3	37.3	11.0	42.0	+ 1.8	39.5	36.4	5.6	13.7	0.9	82	89.4	32.2	0.070	1.3	wP, ssN : vP : vP, vN
27	...	29.542	43.9	30.4	13.5	38.1	- 2.2	35.8	32.7	5.4	9.7	2.9	81	71.0	23.5	0.000	3.7	mP
28	Apogee	29.612	45.1	30.1	15.0	40.0	- 0.3	39.0	37.7	2.3	4.6	0.9	92	56.2	23.3	0.125	1.0	mP : wP, wN : wN, mP
Means	...	29.491	47.9	35.7	12.3	42.0	+ 2.5	40.0	37.6	4.4	8.7	1.6	84.9	71.1	29.8	2.687	4.6	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

* Rainfall (Column 16). Amounts entered on February 4 and 9 are derived from fog and frost.

The mean reading of the Barometer for the month was 29.491, being 0.0311 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 56.0 on February 17; the lowest in the month was 27.5 on February 5; and the range was 28.5. The mean of all the highest daily readings in the month was 47.9, being 2.7 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 35.7, being 1.5 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 12.3, being 1.3 greater than the average for the 65 years, 1841-1905. The mean for the month was 42.0, being 2.5 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Daily Duration of Sunshine. Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.			
			OSLER'S.			ROBIN-SON'S.					
			General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.				
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.					
Feb.	hours.	hours.			lbs.	lbs.	miles.	A.M.	P.M.		
1	2.6	9.1	S	S : SSE	2.6	0.25	338	p.-cl : 9	: 8, ci.-cu	6, ci, ci.-s, ci.-cu:	p.-cl, ci.-cu, cu : 9
2	0.0	9.1	SSE	SSE : SW : S	2.4	0.17	298	10	: 10, slt.-r	: 10, slt.-r	10, slt.-r : p.-cl, ho.-fr
3	0.0	9.2	SSE : S : SW	WSW : SW	0.4	0.01	208	9	: p.-cl, slt.-r	: 9, sh.-r, glm	9, glm : p.-cl : 1, slt.-f, ho.-fr
4	1.4	9.3	SW : WSW	NNW : NW : W	1.6	0.06	221	p.-cl, ho.-fr	: 9, slt.-f, ho.-fr	: 8, f	7, cu, n : p.-cl : 0, slt.-f, ho.-fr
5	0.0	9.3	SW : SSW	SSW	4.4	0.39	429	1, ho.-fr	: h	: 10, s	10, s, slt.-r : 10, fq.-th.-r : 10, slt.-r
6	0.0	9.4	SW : WSW	SW : WSW	3.1	0.24	418	10, oc.-r	: 10, s, sc		10, r : 10 : 10, slt.-r
7	0.2	9.4	SW : WSW	WSW	8.0	0.76	597	10, r	: 10, slt.-sh	: 10, s, n, sc, w	p.-cl, cu.-s, n, w : 9, oc.-slt.-r, w : p.-cl, w
8	0.4	9.5	WSW : W : WNW	NNW	4.3	0.38	392	th.-cl	: 0	: 8, sh.-r	10, n, oc.-slt.-r : p.-cl
9	4.8	9.5	NNW : N	NNE : Calm : SW	1.4	0.02	173	p.-cl, ho.-fr	: 0, h, ho.-fr	: 2	3, li.-cl : h, f : 0, slt.-f, ho.-fr
10	2.1	9.6	SSW : SW	SW : SSW	3.7	0.30	404	0, ho.-fr	: li.-cl	: 5, ci.-cu, cu.-s	9, s : 10, fq.-th.-r : p.-cl, r
11	3.2	9.7	WSW : SW	WSW	6.6	0.20	369	1	: p.-cl	: 5, ci, cu, n	9, sh.-r, sq : p.-cl, sh.-r, hl : 0
12	4.9	9.7	WSW : SW	W : SW : SSW	1.0	0.02	233	0, ho.-fr	: 1	: 1	6, cu.-s : p.-cl, cu.-s : 10, slt.-r
13	1.3	9.8	SSW	SSW : SW : S	2.5	0.08	270	10, slt.-r	: 10, s		p.-cl : 10, r
14	2.6	9.8	S : SSW	WSW : SW : SSW	7.2	0.28	346	9	: 10, r	: 10, r	6, cu.-s : ci.-s : 10, slt.-r, w
15	4.4	9.9	SSW : WSW : W	W : WSW	10.0	0.70	496	10, r, st.-w	: p.-cl, w	: 6, cu, n	5, ci, cu, n : p.-cl, sh.-r, hl, sqs : 1
16	6.0	9.9	WSW : SW	SW : SSW	7.6	0.41	471	1, ho.-fr	: 1, w		6, ci, cu.-s, w : 9, li.-shs : 10, slt.-r, w
17	3.7	10.0	SSW : SW	SW : SSW	13.6	1.70	751	9, r, w	: 10, slt.-r, w	: 9, sc, st.-w	p.-cl, st.-w : p.-cl, r, w, lu.-ha
18	3.3	10.1	SSW : SW	SSW : S : SSE	9.1	0.87	535	10, r, st.-w	: 10, oc.-slt.-r, w	: 9, ci.-cu, so.-ha	6, ci.-cu, cu, n, so.-ha : 1 : p.-cl, lu.-ha
19	2.4	10.1	SSE : S	S : SSW	11.0	1.30	609	1	: 8, slt.-r, st.-w	: 10, oc.-slt.-r, w	9, cu, cu.-s, shs.-r, w : p.-cl, slt.-r, w, lu.-ha : 10, slt.-r, st.-w
20	2.7	10.2	SW : SSW : S	S : SSW : SW	30.7	2.03	718	1, w	: 1	: 6, cu.-s, w	10, r, g : p.-cl, r, g : p.-cl, r, g, hy.-sqs
21	2.9	10.3	SW	SSW : SW	24.0	1.30	587	1, g	: p.-cl, st.-w	: p.-cl, sh.-r, w	9, so.-ha, slt.-sh : p.-cl
22	0.3	10.4	S : SSE : SSW	SSW : SW	2.9	0.17	312	9	: 10	: 10, s, r	10, s, cu.-s, r : p.-cl : p.-cl, d
23	4.8	10.4	SSW : SW	WSW : SW	3.7	0.11	298	9, r	: 10, r	: 9, cu, n	6, ci.-s, cu, n : v, sh.-r : 0, ho.-fr
24	3.4	10.5	S	W : WSW : SW	8.0	0.53	479	p.-cl	: 10, r	: 10, fq.-r, w	9, fq.-shs, w : p.-cl, w : 9, r, lu.-co, lu.-ha
25	1.7	10.5	SSW : S : SW	Variable	5.4	0.31	392	10, r	: 10, oc.-r	: v, oc.-shs	10, n, r : 8, shs.-r, glm : 9, ci.-s, cu, slt.-r, lu.-ha
26	7.1	10.6	S : SSW : SW	WSW : WNW : NW	5.0	0.20	367	9, r	: 10, slt.-r	: 6, ci.-s, cu	p.-cl, sh.-r, hl : p.-cl : 9, slt.-r
27	3.7	10.7	WNW : W : NW	NNW : NW : S	3.8	0.30	348	1, ho.-fr	: 1	: 4, cu, n	9, cu, s, n : p.-cl : p.-cl, h, slt.-f, ho.-fr
28	0.0	10.7	SSE : S	S : WSW : SW	4.6	0.23	339	p.-cl, ho.-fr	: 9	: 10, th.-r	10, slt.-r : 10, r : p.-cl, d
Means	2.5	9.9	...	...	...	0.48	407				
Number of Column for Reference.	19	20	21	22	23	24	25	26			27

The mean *Temperature of Evaporation* for the month was 40°0, being 2°3 higher than
 The mean *Temperature of the Dew Point* for the month was 37°6, being 2°2 higher than
 The mean *Degree of Humidity* for the month was 84.9, being 0.6 less than
 The mean *Elastic Force of Vapour* for the month was 0.225, being 0.018 greater than
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2.576, being 0.2 greater than
 The mean *Weight of a Cubic Foot of Air* for the month was 545 grains, being 8 grains less than
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7.1.
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.253. The maximum daily amount of *Sunshine* was 7.1 hours on February 26.
 The highest reading of the *Solar Radiation Thermometer* was 90°4 on February 23; and the lowest reading of the *Terrestrial Radiation Thermometer* was 20°8 on February 5.
 The mean daily distribution of *Ozone* for the 12 hours ending 9^h was 3.1; for the 6 hours ending 15^h was 1.0; and for the 6 hours ending 21^h was 0.5.
 The *Proportions of Wind* referred to the cardinal points were N. 1, E. 1, S. 15, and W. 11.
 The *Greatest Pressure of the Wind* in the month was 30.7 lbs. on the square foot on February 20. The mean daily *Horizontal Movement of the Air* for the month was 407 miles; the greatest daily value was 751 miles on February 17; and the least daily value was 173 miles on February 9.
Rain (0.1 or over) fell on 24 days in the month, amounting to 2.1687, as measured by gauge No. 6 partly sunk below the ground; being 1.207 greater than the average fall for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Daily Duration of Sunshine. Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						ROBIN- SON'S. Horizontal Movement of the Air.		CLOUDS AND WEATHER.	
			OSLER'S.				Pressure on the Square Foot.					
			General Direction.				Greatest.	Mean of 24 Hourly Measures.				
			A.M.		P.M.							
Mar. 1	8.3	10.8	SW : WSW : W	SW : SSW : S	1.2	0.05	259	1, ho.-fr : h	3, h, li.-cl	4, cu, li.-cl, h	o, d	
2	3.8	10.9	S : SSW	SSW : S : SSE	4.1	0.24	325	1, ho.-fr : p.-cl	9, cl.-s, cl.-cu, n	8, cl.-s, cl.-cu, cu	p.-cl, th.-cl : 1, d, ho.-fr	
3	10.0	10.9	SSE : SE	SE : ESE : E	1.6	0.11	219	1, ho.-fr : 1	1, ci, cu	1, ci, cu, cu	o, d, ho.-fr	
4	8.7	11.0	E : ENE	E	3.7	0.17	243	o, m, slt.-f, ho.-fr :	o	1	o : o, hy.-d, ho.-fr	
5	10.2	11.1	E : Calm : ESE	SE : ESE	2.1	0.07	181	o, ho.-fr :	o	o	o : 1, d, ho.-fr	
6	4.2	11.1	SE : SSE	SSW : SSE	4.4	0.18	274	9, oc.-slt.-r : p.-cl	7, cl.-s, cl.-cu, s, so.-ha, prh	7, cu, cu.-s, s	p.-cl, r : 10, oc.-slt.-r	
7	7.2	11.2	SSE : S : SSW	SW : SSW	1.7	0.11	273	p.-cl, r : 10	6, cu, n	6, cu.-n	2, cu : o, hy.-d	
8	1.2	11.3	SSE : S : SSW	SSW	4.8	0.41	396	p.-cl : 10, oc.-m.-r		9, cu, sc	9 : p.-cl, oc.-m.-r	
9	0.0	11.4	SSW	S : SW : SSW	6.3	0.51	430	9 : 10	10, n, slt.-r	10, c.-r, w	10, c.-r, w	
10	1.8	11.4	SSW : SW	SW : SSW : S	2.8	0.08	220	9, sh.-r : 9, cu, s, n		p.-cl, cl.-s, cl.-cu, cu, so.-ha	p.-cl, th.-cl, so.-ha, prh	p.-cl, hy.-d
11	0.2	11.5	Calm : N : NE	NE : NNE	3.7	0.23	296	10 : 10		10	10 : 10, r	
12	0.0	11.5	NE : NNE	NE : NNE	5.0	0.43	432	10, r, w : 10		10, slt.-r	10 : 10	
13	7.6	11.6	NNE : N	N : S : SW	1.6	0.07	218	10 : p.-cl		8, cu, cu.-s, n	li.-cl, cu : p.-cl, ho.-fr	
14	10.2	11.7	SW	SW : SSW	0.6	0.03	165	p.-cl, slt.-m, ho.-fr : 1, slt.-m	1, ci, th.-cl	1, cu, th.-cl	o, m, ho.-fr	
15	4.7	11.7	SW : Calm : N	N	0.4	0.00	126	p.-cl, m, slt.-f, ho.-fr :	o, slt.-m, slt.-f	p.-cl, ci, cu	9 : o, h, ho.-fr	
16	9.9	11.8	Calm : SW	WSW : SW	3.8	0.21	331	h, lt.-f, ho.-fr : 1, slt.-f	1, th.-cl	o	p.-cl : 1	
17	3.7	11.9	SW : WSW : NW	NW : NNW	6.0	0.38	427	9, w : 10, r, w	9, n	8, n	10, slt.-r	
18	3.4	11.9	WSW : NNW : N	N : NNW	12.8	0.55	378	10, r : 10	10, slt.-sh, sn, w	v, sn, w, prh	p.-cl, oc.-sn, lu.-co	
19	2.1	12.0	NW : N	N : Calm	3.5	0.22	285	10, slt.-sn : 10, oc.-m.-r :	9, cu.-s, n, slt.-sh	9, cu, s, n, slt.-sn	p.-cl	
20	5.1	12.1	Calm	Calm : SE : S	0.0	0.00	106	p.-cl, ho.-fr, m : h	th.-cl	10, s, slt.-f	o, h, ho.-fr	
21	1.4	12.2	S : SW	Variable : NNW : N	2.5	0.05	190	p.-cl, ho.-fr : h, m	10, s, slt.-f	10, s, slt.-f	9, cu, cu.-s, n : 9	
22	8.6	12.2	NNE : N	NNE : NE : E	3.0	0.15	267	p.-cl : o, slt.-h	2, cu	8, cu, n	o, h, ho.-fr	
23	3.5	12.3	Calm : Variable : N	N : E : Calm	1.0	0.03	134	h, slt.-m, ho.-fr : h, ho.-fr	1, slt.-f	p.-cl, cu, n	10 : 9	
24	0.0	12.4	Calm	N : NE	1.0	0.02	131	8 : 10, m, slt.-f :	10, slt.-f	10, slt.-f	10 : 9	
25	4.2	12.4	NE : NNE	ENE : ESE	0.5	0.03	147	9 : 10	5, cu.-s, li.-cl	6, cu, cu.-s	p.-cl : 9	
26	0.8	12.5	NE : E : NNE	NE : E : ESE	1.1	0.02	153	p.-cl : 10	10, s, n	p.-cl, cu.-s	p.-cl, d : 1, ho.-fr	
27	6.1	12.6	E : Calm	SW : Calm	0.2	0.00	100	s, slt.-f : 10, m.-r	9	1, glm, h	1, th.-cl, slt.-f : h, slt.-f, d	
28	2.3	12.6	WSW : SW : N	N : NNE	0.5	0.02	172	p.-cl, ho.-fr : p.-cl	9, cu, slt.-f	10, cu, cu.-s	10, cu.-s, n, oc.-slt.-r : p.-cl, h, d	
29	6.2	12.7	NE : ENE	NE : ESE : Calm	0.7	0.04	163	9 : 10	9, cu, cu.-s, n	p.-cl, cu	o : 1, ho.-fr	
30	3.8	12.7	Calm : SW : N	NNE : ENE : NE	3.6	0.20	250	o, h, m, ho.-fr : h, slt.-f	1, cl.-cu, h, slt.-f, so.-ha	7, cu, n	9, cu.-s, n : p.-cl	
31	10.3	12.8	NE : ENE	ENE : NE	9.5	0.80	494	p.-cl : p.-cl	8, cu, n, slt.-sn, w	6, cu, w	2, cu, w : 1	
Means	4.8	11.8	...	...	...	0.17	251				
Number of Column for Reference.	19	20	21	22	23	24	25	26		27		

The mean *Temperature of Evaporation* for the month was 40°.2, being 0°.8 higher than
 The mean *Temperature of the Dew Point* for the month was 37°.1, being 0°.8 higher than
 The mean *Degree of Humidity* for the month was 80.8, being 0.3 greater than
 The mean *Elastic Force of Vapour* for the month was 0.221, being 0.007 greater than
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2575.5, being the same as
 The mean *Weight of a Cubic Foot of Air* for the month was 553 grains, being 4 grains greater than
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 5.6.
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.408. The maximum daily amount of *Sunshine* was 10.3 hours on March 31.
 The highest reading of the *Solar Radiation Thermometer* was 108°.6 on March 29; and the lowest reading of the *Terrestrial Radiation Thermometer* was 21°.3 on March 15.
 The mean daily distribution of *Ozone* for the 12 hours ending 9^h was 1.2; for the 6 hours ending 15^h was 1.5; and for the 6 hours ending 21^h was 0.4.
 The *Proportions of Wind* referred to the cardinal points were N. 9, E. 6, S. 8, and W. 4. Four days were calm.
 The *Greatest Pressure of the Wind* in the month was 12.8 lbs. on the square foot on March 18. The mean daily *Horizontal Movement of the Air* for the month was 251 miles; the greatest daily value was 494 miles on March 31; and the least daily value was 100 miles on March 27.
Rain (0.1005 or over) fell on 10 days in the month, amounting to 1.103, as measured by gauge No. 6 partly sunk below the ground; being 0.1417 less than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Phases of the Moon.	BARO-METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			TEMPERATURE.		Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.	
			Of the Air.				Of Evaporation.	Of the Dew Point.	Degree of Humidity (Saturation = 100).	Of Radiation.								
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.		Deducted Mean Daily Value.	Mean.	Greatest.	Least.	Highest in Sun's Rays.				Lowest on the Grass.
Apr. 1	...	30.214	48.6	34.0	14.6	39.9	- 5.4	35.8	30.5	9.4	17.0	2.5	69	107.7	27.2	0.000	5.8	mP
2	Greatest Declination S.	29.981	50.0	33.6	16.4	41.5	- 4.2	37.9	33.4	8.1	16.6	1.3	74	99.8	19.5	0.000	4.0	mP : wP : vP
3	Last Quarter	29.620	52.1	25.5	26.6	41.3	- 4.7	37.1	31.9	9.4	17.0	0.8	69	92.2	15.9	0.000	0.0	sP : mP : vP
4	...	29.455	51.0	36.7	14.3	41.9	- 4.3	39.8	37.2	4.7	12.8	1.8	85	101.5	28.1	0.075	0.0	wP : sP : vP, vN
5	...	29.526	52.8	36.2	16.6	42.7	- 3.6	40.3	37.4	5.3	12.8	0.9	82	83.7	23.5	0.003	2.0	mP
6	...	29.666	53.7	34.6	19.1	43.9	- 2.4	41.5	38.7	5.2	13.4	1.0	82	80.8	22.2	0.009	0.0	mP, ssN : vP, vN : wP, ssN
7	...	29.799	47.3	39.9	7.4	43.9	- 2.4	41.5	38.7	5.2	10.1	1.5	82	61.9	35.0	0.016	0.0	mP, ssN : mP : mP
8	...	29.884	49.0	35.7	13.3	42.4	- 3.7	39.6	36.2	6.2	11.3	1.2	79	83.0	28.1	0.000	0.0	mP
9	In Equator : New	29.870	56.0	34.2	21.8	45.9	- 0.1	41.2	35.8	10.1	16.8	1.7	69	86.0	25.3	0.000	4.0	mP : sP : sP
10	Perigee	29.905	49.7	39.5	10.2	44.3	- 1.6	42.6	40.6	3.7	6.9	1.1	87	78.2	33.0	0.017	1.0	wP, wwN : wP, wwN : wP
11	...	29.732	59.8	40.2	19.6	48.1	+ 2.3	43.9	39.3	8.8	16.9	1.3	72	110.1	33.5	0.000	10.2	wP : wP : mP
12	...	29.321	63.1	41.1	22.0	50.8	+ 4.9	46.9	42.8	8.0	18.0	2.3	75	121.6	31.3	0.010	9.1	wP : vN, wP : mP, mN
13	...	29.016	63.8	48.7	15.1	53.4	+ 7.3	50.8	48.2	5.2	12.0	1.7	82	116.0	45.8	0.192	22.2	wP, wN : wP : vP, ssN
14	...	29.060	55.0	44.1	10.9	48.2	+ 1.8	44.7	40.9	7.3	10.6	3.4	76	88.0	39.6	0.007	12.0	wP : wP : mP
15	Greatest Declination N.	29.120	59.2	42.1	17.1	48.2	+ 1.4	44.8	41.1	7.1	16.5	2.4	77	119.4	34.0	0.126	18.2	wP, vN : wP, ssN : mP
16	First Quarter	29.266	60.0	39.1	20.9	48.0	+ 0.8	45.5	42.8	5.2	13.1	0.4	82	122.1	29.6	1.503	5.3	wP, wN : vP, ssN : ssP, ssN
17	...	29.653	52.5	39.2	13.3	44.7	- 2.9	40.8	36.3	8.4	15.8	2.2	72	83.9	28.7	0.000	0.2	wP : mP : vP
18	...	29.891	54.2	34.3	19.9	47.9	- 0.1	46.2	44.3	3.6	9.7	1.7	88	69.9	27.2	0.000	2.0	mP : mP : wP
19	...	29.913	60.8	52.5	8.3	56.0	+ 7.7	53.2	50.6	5.4	8.5	3.4	82	81.0	48.6	0.001	5.8	wP
20	...	30.037	61.5	48.7	12.8	54.5	+ 6.0	51.9	49.4	5.1	9.1	1.2	82	85.0	47.1	0.040	0.0	wP
21	...	29.942	65.5	51.8	13.7	56.8	+ 8.1	52.8	49.2	7.6	16.0	2.4	76	110.9	46.7	0.000	0.0	wP : wP : mP
22	In Equator	29.861	59.2	36.3	22.9	48.5	- 0.2	45.6	42.5	6.0	10.8	0.8	80	104.8	32.0	0.191	3.0	vP, sN : vP, ssN : vP
23	...	29.733	50.1	30.9	19.2	43.1	- 5.5	40.2	36.7	6.4	13.6	3.5	79	97.1	22.2	0.003	11.2	mP
24	Full : Apogee	29.196	55.0	43.1	11.9	47.8	- 0.8	44.3	40.5	7.3	17.8	2.2	76	106.3	38.0	0.080	8.3	wP, vN : ... : ...
25	...	29.265	55.1	38.1	17.0	43.1	- 5.5	40.2	36.7	6.4	14.1	2.1	78	110.0	30.7	0.046	4.5	wP : vP, ssN : ssP, ssN
26	...	29.520	53.2	37.6	15.6	43.8	- 4.8	39.7	34.9	8.9	16.6	2.8	71	113.0	30.2	0.038	3.0	mP : ssP, ssN : sP, ssN
27	...	29.867	58.5	34.9	23.6	45.8	- 2.9	41.1	35.7	10.1	16.8	2.7	69	121.8	26.3	0.000	5.8	mP : vP : mP
28	...	29.706	60.0	38.7	21.3	47.7	- 1.1	44.1	40.1	7.6	15.2	0.9	76	119.2	32.9	0.251	11.2	wP : wP, wN : vN, sP
29	...	29.786	54.0	36.1	17.9	43.1	- 5.9	39.6	35.4	7.7	16.0	1.7	75	105.5	30.0	0.000	3.0	mP : sP, ssN : vP, ssN
30	Greatest Declination S.	30.069	52.6	36.0	16.6	45.3	- 3.8	41.8	37.7	7.6	14.3	1.9	75	88.0	29.0	0.011	0.0	mP : sP : mP
Means	...	29.662	55.4	38.8	16.7	46.4	- 0.9	43.2	39.5	6.9	13.9	1.8	77.4	98.3	31.4	Sum 2.619	5.1	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

The mean reading of the Barometer for the month was 29.662, being 0.086 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 65.5 on April 21; the lowest in the month was 25.5 on April 3; and the range was 40.0. The mean of all the highest daily readings in the month was 55.4, being 1.8 lower than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 38.8, being 0.2 lower than the average for the 65 years, 1841-1905. The mean of the daily ranges was 16.7, being 1.5 less than the average for the 65 years, 1841-1905. The mean for the month was 46.4, being 0.9 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Daily Duration of Sunshine.	Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.	
			OSLER'S.				ROBIN- SON'S.		
			General Direction.		Pressure on the Square Foot.			A.M.	P.M.
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.				Horizontal Movement of the Air.
Apr. 1	9 ^h 7 ^m	12 ^h 9 ^m	NNE : NE : ENE	ENE : NE	9 ^h 2 ^m	0 ^h 67 ^m	491	1, ho.-fr : p.-cl : 7, cu, n, w	2, cu, w : 0
2	8 ^h 4 ^m	12 ^h 9 ^m	NE : ENE	ENE : E : Variable	4 ^h 4 ^m	0 ^h 17 ^m	265	1, ho.-fr : 1 : 5, ci.-s, ci.-cu, so.-ha	9, ci.-s, so.-ha : p.-cl, ci.-s : 0, ho.-fr
3	11 ^h 1 ^m	13 ^h 0 ^m	N : Calm : Variable	NE : N	1 ^h 2 ^m	0 ^h 05 ^m	130	0, slt.-h, ho.-fr : 0, h : 1, h	0, h : 0 : p.-cl
4	3 ^h 9 ^m	13 ^h 1 ^m	NNE : N	N : NNW : WSW	2 ^h 2 ^m	0 ^h 19 ^m	266	9 : 10 : 4, ci, cu, so.-ha, prh	9, sh.-r, hl : 10, s, n, c.-r : 10, slt.-r
5	2 ^h 5 ^m	13 ^h 1 ^m	SW	SW : S : SSE	2 ^h 1 ^m	0 ^h 07 ^m	219	10 : 10, cu.-s, n	8, cu, n, oc.-slt.-r : p.-cl, ci, ci.-cu : 1, ho.-fr
6	0 ^h 3 ^m	13 ^h 2 ^m	Variable	ENE	7 ^h 2 ^m	0 ^h 37 ^m	306	p.-cl, m : 10, slt.-f, m.-r	10, ci.-s, s : 10, w : p.-cl
7	0 ^h 0 ^m	13 ^h 2 ^m	NE	NE : SE : ENE	3 ^h 0 ^m	0 ^h 15 ^m	254	10 : 10, oc.-slt.-r : 10, slt.-r	10, s, n, oc.-slt.-r : 10, s, n : p.-cl
8	0 ^h 2 ^m	13 ^h 3 ^m	NNE : NE	NE : ENE : NNE	1 ^h 6 ^m	0 ^h 07 ^m	194	p.-cl : 10	10, cu.-s, n : 10, s : p.-cl
9	6 ^h 2 ^m	13 ^h 4 ^m	N : W : NW	NNW : NW	4 ^h 5 ^m	0 ^h 24 ^m	297	0, ho.-fr : p.-cl : 2, th.-cl	6, h, cu : p.-cl, cu, cu.-s : 9
10	0 ^h 0 ^m	13 ^h 4 ^m	Variable	S : SSW	1 ^h 8 ^m	0 ^h 05 ^m	152	9, oc.-m.-r : 10 : 10, n, s	10, n, s : 10, s : p.-cl, d
11	10 ^h 2 ^m	13 ^h 5 ^m	S	SSW : S	2 ^h 3 ^m	0 ^h 12 ^m	226	9 : p.-cl : 4, ci, ci.-cu, cu	5, ci, cu : 1, ci, cu : p.-cl, ci.-s, d
12	2 ^h 0 ^m	13 ^h 6 ^m	S	SSW : S	4 ^h 5 ^m	0 ^h 20 ^m	307	p.-cl : p.-cl, s, n, slt.-r	p.-cl, ci.-s, ci.-cu, n, slt.-r : 10, slt.-r : 9
13	3 ^h 3 ^m	13 ^h 6 ^m	S : SSW	SSW : S	12 ^h 0 ^m	0 ^h 67 ^m	462	10, r : 10, oc.-slt.-r : 9, cu.-s, h.-shs, w	p.-cl, cu.-s, so.-ha, oc.-r, w : p.-cl, fg.-r, lt, sqs : 9, slt.-sh, w
14	0 ^h 9 ^m	13 ^h 7 ^m	SSW : SW : WSW	Calm : SW	6 ^h 3 ^m	0 ^h 09 ^m	180	9, w : 9 : 10, s, n	10, n, s : 10, s : 10, sh.-r
15	7 ^h 8 ^m	13 ^h 8 ^m	S : SSW	SE : S : SSE	8 ^h 1 ^m	0 ^h 26 ^m	314	p.-cl, sh.-r : p.-cl : 7, ci, ci.-s, cu, so.-ha	9, ci.-s, s, n, so.-ha, r, sq : 2, ci, ci.-s : 2, d
16	4 ^h 9 ^m	13 ^h 8 ^m	SSE : SE	Variable : NW : WNW	2 ^h 6 ^m	0 ^h 09 ^m	202	1 : 9, slt.-sh : p.-cl, ci, ci.-cu, cu, n	9, ci, ci.-s, cu, sh.-r : 10, t.-sm, hy.-r, hl : 10, r
17	3 ^h 0 ^m	13 ^h 9 ^m	WNW : W	WNW : NW : SW	4 ^h 2 ^m	0 ^h 31 ^m	358	p.-cl : 10 : 10, s	p.-cl, cu.-s, s : p.-cl, d, lu.-ha
18	0 ^h 3 ^m	14 ^h 0 ^m	SSW : S	SSW : SW	3 ^h 0 ^m	0 ^h 32 ^m	370	p.-cl : 9 : 10, s, n	10, s : 10 : 9
19	0 ^h 3 ^m	14 ^h 0 ^m	SW : WSW	WSW : W	8 ^h 0 ^m	0 ^h 85 ^m	608	9 : 10, w : 10, cu.-s, n, w	10, cu.-s, n, so.-ha, w : 10, s, n, so.-ha, oc.-slt.-r, w : 10, w
20	0 ^h 0 ^m	14 ^h 1 ^m	NNW : Calm	SW : WSW	2 ^h 7 ^m	0 ^h 15 ^m	268	10, m.-r : 10 : 10, s, n	10, s, n : p.-cl : 9
21	2 ^h 9 ^m	14 ^h 1 ^m	WSW : W	WNW : NW : N	4 ^h 4 ^m	0 ^h 43 ^m	439	9 : 10 : 10, cu.-s, n	9, ci.-s, ci.-cu, so.-ha, r, sq : p.-cl, so.-ha, prh : 9
22	1 ^h 6 ^m	14 ^h 2 ^m	WSW : SW : W	NW : NNE	3 ^h 6 ^m	0 ^h 20 ^m	265	10, r : 10, slt.-r : 10, n, s	p.-cl, l, t, slt.-sh : 10, n : p.-cl
23	0 ^h 2 ^m	14 ^h 3 ^m	Calm : SW : SSW	SSW : SW	5 ^h 1 ^m	0 ^h 34 ^m	328	th.-cl, lu.-ha : 9 : 9, cu, cu.-s	10, cu, cu.-s, n : 10, cu.-s, n, oc.-slt.-r : 10, oc.-r
24	4 ^h 6 ^m	14 ^h 3 ^m	SW : WSW	WSW : SW	9 ^h 6 ^m	0 ^h 99 ^m	626	10, r, w : 10 : 9, ci.-s, n, sh.-r, hl, w	p.-cl, oc.-slt.-r, st.-w : p.-cl, oc.-shs, w : 2, w
25	7 ^h 3 ^m	14 ^h 4 ^m	SW : WSW	W : SW : SSW	8 ^h 7 ^m	0 ^h 48 ^m	452	1, w : p.-cl : 8, cu, n, sh.-r, sq	8, cu, n, oc.-shs, oc.-sqs : 9, oc.-r : p.-cl
26	8 ^h 2 ^m	14 ^h 4 ^m	SW : WSW : WNW	W : WNW	7 ^h 3 ^m	0 ^h 38 ^m	375	9, slt.-r : 9 : 6, cu, slt.-sh	p.-cl, shs.-r, hl, sqs : p.-cl : th.-cl, sh.-r
27	12 ^h 4 ^m	14 ^h 5 ^m	WSW : SW	SW : SSW : S	2 ^h 9 ^m	0 ^h 17 ^m	299	p.-cl : 2, ci.-s, cu, so.-ha	5, ci.-s, cu, n, so.-ha : p.-cl, ci, ci.-s : 0, d
28	5 ^h 3 ^m	14 ^h 6 ^m	S : SSW	SW : NW : WSW	14 ^h 9 ^m	0 ^h 52 ^m	421	10 : 9 : 6, ci, ci.-cu, cu	9, so.-ha, w : 10, r, hl, w, sq : 1
29	10 ^h 0 ^m	14 ^h 6 ^m	WSW : W : NW	NW : NE : NNW	5 ^h 9 ^m	0 ^h 24 ^m	312	1 : 1 : 8, cu, n	8, cu, n, h.-shs, sqs : p.-cl, sq : p.-cl, d
30	2 ^h 3 ^m	14 ^h 7 ^m	NW : WSW : NNW	NW : NNW	2 ^h 4 ^m	0 ^h 13 ^m	236	9 : p.-cl : 7, ci.-s, s	10, s, n : 10, n, s : 10, oc.-slt.-r
Means	4 ^h 3 ^m	13 ^h 8 ^m	...	...	...	0 ^h 30 ^m	321		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 43°·2, being 0°·7 lower than
 The mean *Temperature of the Dew Point* for the month was 39°·5, being 0°·6 lower than
 The mean *Degree of Humidity* for the month was 77·4, being 1·6 greater than
 The mean *Elastic Force of Vapour* for the month was 0ⁱⁿ·242, being 0ⁱⁿ·006 less than
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 28^{grs}·8, being 08^{gr}·1 less than
 The mean *Weight of a Cubic Foot of Air* for the month was 543 grains, being the same as
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7·8.
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·314. The maximum daily amount of *Sunshine* was 12·4 hours on April 27.
 The highest reading of the *Solar Radiation Thermometer* was 122°·1 on April 16; and the lowest reading of the *Terrestrial Radiation Thermometer* was 15°·9 on April 3.
 The mean daily distribution of *Ozone* for the 12 hours ending 9^h was 2·2; for the 6 hours ending 15^h was 2·0; and for the 6 hours ending 21^h was 0·9.
 The *Proportions of Wind* referred to the cardinal points were N. 7, E. 3, S. 9, and W. 9. Two days were calm.
 The *Greatest Pressure of the Wind* in the month was 14·9 lbs. on the square foot on April 28. The mean daily *Horizontal Movement of the Air* for the month was 321 miles; the greatest daily value was 626 miles on April 24; and the least daily value was 130 miles on April 3.
Rain (0ⁱⁿ·005 or over) fell on 16 days in the month, amounting to 2ⁱⁿ·619, as measured by gauge No. 6 partly sunk below the ground; being 1ⁱⁿ·053 greater than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Daily Duration of Sunshine. Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					ROBIN- SON'S.		CLOUDS AND WEATHER.			
			OSLER'S.										
			General Direction.			Pressure on the Square Foot.						Horizontal Movement of the Air.	
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	miles.						
May 1	0.1	14.8	NNW : N	N : WNW : NW	1.2	0.09	189	9, slt.-r	9, oc.-slt.-r	10, s, n, oc.-m.-r	10, s, n	10, slt.-sh, m	10, slt.-sh
2	0.0	14.8	NNW : N : SE	SE : Calm : N	3.4	0.23	256	10	10, fq.-r	10, r	10, s, n, r	10, r	9
3	11.6	14.9	N	Variable : SW : WSW	3.5	0.15	245	p.-cl	p.-cl	2, cu, h	5, h	9	10, r
4	7.9	14.9	SW : NW	NW : NNW : SW	8.4	0.31	333	9, r	p.-cl	9, cu, n	9, n, fq.-r, sl, sqs	v, oc.-r, glm	p.-cl, h, ho.-fr
5	2.6	15.0	SW : SSW	SSW : NW : SW	5.0	0.30	352	9	10, slt.-r	10, s, n, sq, fq.-r	9, oc, slt.-r	p.-cl	p.-cl
6	9.8	15.0	SSW : WSW : W	WSW : SW	8.2	1.11	639	10, r, w	p.-cl, sq	5, cu, n, w	6, cu, n, st.-w	p.-cl, w	9, oc.-shs, w
7	12.6	15.1	WSW	W : WSW : SW	6.7	0.75	560	p.-cl, w	p.-cl, w	8, cu, n, sh.-r, w	v, cu, n, t, sh.-r, su, w	p.-cl, w	p.-cl
8	5.4	15.1	SW : WSW	Variable : NNW : N	4.3	0.18	255	p.-cl	p.-cl	9, cu, n, l, t, r, hl	10, n, oc.-r	p.-cl	p.-cl
9	2.5	15.2	NNW : NW : W	N : Calm	2.0	0.05	164	p.-cl	p.-cl	9, th.-r	p.-cl, r, sl, hl	v, fq.-r	p.-cl, m
10	13.4	15.2	Calm : NE : ENE	ENE : ESE	2.1	0.07	154	1, ho.-fr, m	p.-cl	3, cu	4, cu	3, ci, cu	1, ho.-fr
11	4.9	15.3	NE : NNE	NE : NNE : N	7.7	0.77	468	1, ho.-fr	p.-cl, m	7, ci.-s, ci.-cu, w	9, cu, n, w	10, r, w	9, r, w
12	11.2	15.4	N : NE : E	E : ENE : NE	8.0	0.76	461	9, l, t, oc.-r, w	10, r, w	p.-cl, cu	1, cu, w	p.-cl, hy.-sh, glm, w	9
13	5.6	15.4	E : ESE : SE	SE : ESE	6.8	0.59	370	8, w	10, oc.-slt.-r, w	10, cu.-s, n, w	9, cu, n, w	p.-cl	p.-cl, d
14	10.8	15.5	ESE : ENE : E	E : ENE	17.0	0.53	342	9, oc.-r	9, m	2, ci.-s, ci.-cu, w, sq	1, cu, w	0, w	p.-cl
15	9.9	15.5	NE : NNE	E	1.0	0.05	168	8	10	p.-cl	1, ci, cu	1, ci, cu	0, d
16	9.0	15.6	E : NE : ENE	ESE : ENE : E	2.0	0.10	209	p.-cl, f	10	p.-cl, ci.-cu, cu	1, cu, li.-cl	p.-cl, ci, cu, s	10, slt.-r
17	2.0	15.6	NE	NE : ENE : E	2.3	0.17	265	10, slt.-r	10, m	10, s, n	9, cu, cu.-s	p.-cl, cu, s, n, d	9, slt.-sh
18	10.0	15.7	E : S : SSW	SSW : Calm : E	1.7	0.05	175	10, r, hy.-shs	10, oc.-r, hy.-sh	p.-cl, ci, cu, n	5, ci, cu, so.-ha	ci, cu	th.-cl, lu.-ha
19	4.7	15.7	NE : E : SE	SSE : SE : E	1.9	0.09	193	10, r, t.-sm	10, r	8, ci, cu, n	p.-cl, ci, cu, n	9	9, r, l, t
20	13.3	15.7	ENE : ESE : S	SSW : WSW : NW	2.8	0.16	244	9, fq.-r, t.-sm	2	3, ci, ci.-cu, cu	2, ci, ci.-cu, cu	p.-cl	p.-cl, d
21	0.3	15.8	WNW : NW : N	NNW : N	2.6	0.09	221	9	10	10, slt.-r, glm, t	10	10, s, n	10, th.-cl
22	10.1	15.8	NNW : N	ENE : ESE : NNE	2.3	0.13	241	8	p.-cl	7	2, cu, h	1	1
23	14.1	15.9	NNE : NE : ENE	E : ENE	5.5	0.34	332	0	0		0, w	1, ci	1, th.-cl, lu.-ha, prs
24	11.8	15.9	ENE : NNE : N	NNE	4.3	0.44	379	1	1	2, ci.-s, cu	5, cu	10	10
25	3.9	16.0	NNE	NNE : N	4.2	0.52	413	10	9	10, cu.-s	9, cu.-s	9, cu.-s, n	10
26	9.4	16.0	NNE : N	NNE : N : SW	1.7	0.12	219	10	10	7, cu, cu.-s	3, cu, cu.-s	2, ci, cu	h, d
27	1.1	16.1	SW : NNW	N : ENE : Calm	1.0	0.03	150	p.-cl, m	9	10	9, cu.-s, n	10	
28	9.8	16.1	W : WSW	SW : NW : NNW	2.0	0.11	256	10	p.-cl	3, ci, cu	7, ci.-s, cu, so.-ha, hy.-sh	9, sh.-r	10, r
29	0.6	16.1	WSW : SW	WSW : SW	3.5	0.20	312	9, r	10, r	10, slt.-r	9, ci.-cu, cu, cu.-s	10, n, s	10, slt.-r
30	9.7	16.2	W : WSW	WSW : SW	5.2	0.57	477	p.-cl, r	p.-cl	6, ci, cu	8, cu, n, w	9, n, w	10
31	1.3	16.2	SW : SSW	SSW : SW	10.3	0.92	515	9, slt.-r	10, oc.-slt.-r, w	10, n, w	10, n, oc.-slt.-r, w	p.-cl, w	1, hy.-d
Means	7.1	15.5	...	...	...	0.32	308						
Number of Column for Reference.	19	20	21	22	23	24	25	26			27		

The mean *Temperature of Evaporation* for the month was 49°3, being 0°3 higher than
 The mean *Temperature of the Dew Point* for the month was 45°6, being 0°6 higher than
 The mean *Degree of Humidity* for the month was 76.9, being 2.7 greater than
 The mean *Elastic Force of Vapour* for the month was 0.306, being 0.007 greater than
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3.75, being 0.1 greater than
 The mean *Weight of a Cubic Foot of Air* for the month was 536 grains, being 2 grains less than
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 6.7.
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.456. The maximum daily amount of *Sunshine* was 14.1 hours on May 23.
 The highest reading of the *Solar Radiation Thermometer* was 137°1 on May 20; and the lowest reading of the *Terrestrial Radiation Thermometer* was 25°1 on May 10.
 The mean daily distribution of *Ozone* for the 12 hours ending 9^h was 1.9; for the 6 hours ending 15^h was 2.4; and for the 6 hours ending 21^h was 0.6.
 The *Proportions of Wind* referred to the cardinal points were N. 10, E. 7, S. 5, and W. 8. One day was calm.
 The *Greatest Pressure of the Wind* in the month was 17.0 lbs. on the square foot on May 14. The mean daily *Horizontal Movement of the Air* for the month was 308 miles; the greatest daily value was 639 miles on May 6; and the least daily value was 150 miles on May 27.
Rain (0.1005 or over) fell on 19 days in the month, amounting to 2.243, as measured by gauge No. 6 partly sunk below the ground; being 0.328 greater than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Daily Duration of Sunshine. Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.		
			OSLER'S.			ROBIN-SON'S.				
			General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.	A.M.	P.M.	
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.				
June 1	5 ⁰	16 ²	SW : SSW	SW : SSW : S	2.9	0.16	281	p.-cl	: 9, so.-ha	8, ci, ci.-s, ci.-cu, : p.-cl, ci, ci.-s : th.-cl, d
2	6 ⁷	16 ²	Calm : SSW	SSW	1.8	0.07	183	p.-cl	: 9, r : 10, ci.-s, n, r, so.-ha	p.-cl, ci, ci.-s, cu, : 5, ci, ci.-s : p.-cl
3	13 ¹	16 ³	SW : WSW	SW : WSW	1.0	0.03	174	1	: p.-cl, h : 2, ci, ci.-s, cu	3, cu : 3, cu : 1, h, d
4	0 ⁴	16 ³	Calm : ESE	ESE : E : NE	1.2	0.05	148	p.-cl	: 10, m : 10, cu.-s, n	10, n, s, slt.-r : 9, sh.-r : p.-cl
5	0 ⁰	16 ³	NNE : NE	NE : NNE	3.4	0.33	357	9	: 10 : 10, s	10, s, slt.-sh : 10, s, n : 10, l
6	6 ⁴	16 ⁴	NNE : N	N : NNE	5.1	0.49	398	10	: 9 : 6, ci, ci.-cu, cu, : 7, ci.-cu, cu : 9, cu, n : 10, l, t	
7	2 ⁶	16 ⁴	NNE : NE	NE : SE	1.2	0.02	162	10, r, hy.-sh, l, t	: 10, m : 10, r, l, t	10, s, r, t : p.-cl, ci, ci.-s, : 10, l, t
8	10 ³	16 ⁴	E : Calm : ENE	NE : ENE : Calm	0.5	0.01	139	9	: p.-cl, m : 7, cu, li.-cl	3, cu, h : 2, ci, cu, h : 1, m, l, d
9	8 ²	16 ⁴	Calm : ENE	E : NNE : Variable	1.8	0.03	136	p.-cl, f	: 9 : 4, ci, cu	1, ci, cu : 9, s, n : 10, s, l, d, slt.-r
10	0 ⁰	16 ⁵	NNE : N	N : Calm	1.2	0.01	127	10, l, m.-r	: 10, slt.-r, t : 10, fq.-r, t	10, n, s, r : 10, n : 10
11	0 ⁹	16 ⁵	N : NNE	NE : N	0.5	0.01	131	10	: 10, s, n	10, n, s : 9, cu, n, s : 10
12	1 ⁶	16 ⁵	Calm : NNW : N	N : NNW	1.2	0.06	181	10	: 10 : 9, ci.-s, cu.-s	10, s, n : p.-cl, sh.-r : 10, sh.-r, l
13	0 ³	16 ⁵	NNW : NW	NW : NNW	3.9	0.21	255	9	: 10 : 10, s	10, s : 10, ci, ci.-s, s : 9, l
14	14 ⁴	16 ⁵	NW : NNW	NW : NNW	3.6	0.30	314	p.-cl	: 2 : 2, cu	5, cu : p.-cl, ci, cu : 1, s
15	8 ⁴	16 ⁵	NNW : N : NNE	E : ESE	1.2	0.04	163	1	: p.-cl, h : 9, ci.-s, cu	9, cu, cu.-s : 9, cu, cu.-s : th.-cl, d
16	11 ⁹	16 ⁵	E : NE : ENE	ENE : ESE : E	1.5	0.14	221	p.-cl	: 2 : 10, cu, s, so.-ha	6, ci, ci.-s, cu, so.-ha : 4, ci, cu : th.-cl, m
17	5 ⁵	16 ⁵	NE : NNE	NNE : NE : ESE	1.0	0.03	179	p.-cl	: 10 : 10, n, s	p.-cl, cu, cu.-s : p.-cl, cu, d : 10, m.-r
18	10 ⁶	16 ⁶	E : ENE : NE	ESE : E : SE	0.5	0.02	160	9	: 9 : 4, cu, cu.-s	1, ci, ci.-s, ci.-cu : 1, ci, ci.-cu, cu : 1, ci.-cu, cu, d
19	14 ⁹	16 ⁶	SW : Calm : Variable	SW	0.5	0.02	146	0, d	: 0	0 : 0 : 1, d
20	15 ¹	16 ⁶	SW : Calm : SSE	S : SSE : ESE	1.5	0.07	166	0, d	: 0	1, cu : 0 : 0, d
21	6 ⁶	16 ⁶	SE : S : SW	SW : WSW : W	1.7	0.13	258	10	: 10 : p.-cl	8, cu, s, so.-ha : 9, ci, ci.-s, ci.-cu : 10
22	4 ¹	16 ⁶	WSW : SW	SW : W	2.9	0.12	250	10	: 10 : 10, ci.-s, n, so.-ha	p.-cl, li.-sh, l, t : p.-cl, slt.-sh : li.-cl
23	5 ⁶	16 ⁶	SSW : SW : WSW	SW : WSW	4.0	0.17	285	p.-cl	: 9, sh.-r : 9, cu, n	9, n, hy.-sh, s, t : 9, n : 9
24	3 ⁶	16 ⁶	SSW : SSE : SW	SW	3.7	0.12	272	9	: 10, th.-r : 10, oc.-slt.-r	9, cu, n, sc, r : p.-cl, so.-ha : p.-cl, d
25	2 ⁴	16 ⁶	SW : WSW	SW : Variable	3.4	0.08	236	p.-cl	: p.-cl, oc.-r : 9, cu, n, t.-sm, : 10, c.-r, t.-sm : v, sh.-r : 10	
26	1 ⁹	16 ⁶	N	NW : NNW : W	2.5	0.22	292	10, r	: 9 : 9, cu, n	9, cu, n : 10
27	1 ⁸	16 ⁵	W : WSW	WSW : SW	3.3	0.30	373	p.-cl	: p.-cl : 9, cu, n	9 : 10, r
28	8 ³	16 ⁵	SSW : SW : WSW	WSW : SW	8.3	0.93	574	10, slt.-r, w	: 9 : 9, cu, n, sc, w	p.-cl, w : p.-cl, sh.-r, w : 9, w
29	8 ³	16 ⁵	SW : WSW	SW	5.0	0.57	478	p.-cl, hy.-sh, w	: p.-cl, w : p.-cl, sh.-r, w	v, cu, n, oc.-sh, w : p.-cl, oc.-shs : p.-cl
30	5 ⁹	16 ⁵	SW : WSW : W	W : WSW	7.3	0.60	483	p.-cl	: 9 : 9, ci, ci.-s, cu, : 9, ci, ci.-s, ci.-cu, w : 10, fq.-r	
Means	6.2	16.5	...	...	...	0.18	251			
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	

The mean *Temperature of Evaporation* for the month was 56°.2, being 1°.3 higher than
 The mean *Temperature of the Dew Point* for the month was 52°.7, being 1°.8 higher than
 The mean *Degree of Humidity* for the month was 76.9, being 3.3 greater than
 The mean *Elastic Force of Vapour* for the month was 0.9399, being 0.026 greater than
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4.874, being 0.872 greater than
 The mean *Weight of a Cubic Foot of Air* for the month was 528 grains, being 3 grains less than
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7.5.
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.374. The maximum daily amount of *Sunshine* was 15.1 hours on June 20.
 The highest reading of the *Solar Radiation Thermometer* was 144°.5 on June 21; and the lowest reading of the *Terrestrial Radiation Thermometer* was 33°.4 on June 16.
 The mean daily distribution of *Ozone* for the 12 hours ending 9^h was 1.5; for the 6 hours ending 15^h was 2.6; and for the 6 hours ending 21^h was 0.6.
 The *Proportions of Wind* referred to the cardinal points were N. 8, E. 6, S. 6, and W. 8. Two days were calm.
 The *Greatest Pressure of the Wind* in the month was 8.3 lbs. on the square foot on June 28. The mean daily *Horizontal Movement of the Air* for the month was 251 miles; the greatest daily value was 574 miles on June 28; and the least daily value was 127 miles on June 10.
Rain (0.1005 or over) fell on 13 days in the month, amounting to 2.077, as measured by gauge No. 6 partly sunk below the ground; being 0.039 greater than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Daily Duration of Sunshine. Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						ROBIN- SON'S.		CLOUDS AND WEATHER.		
			OSLER'S.				Pressure on the Square Foot.						
			General Direction.				Greatest.	Mean of 24 Hourly Measures.					Horizontal Movement of the Air.
			A.M.	P.M.									
July	hours.	hours.			lbs.	lbs.	miles.						
1	1.6	16.5	SW : WSW	SW	2.1	0.18	301	9, sh.-r	: 10	: 10, n, shs.-r	9, r	: 9, cu, n, li.-shs:	9
2	5.7	16.5	SW : WSW	WSW : SW	3.6	0.16	278	9	: 9	: v, oc.-hy.-shs, l, t	8, cl.-s, cu, n, shs.-r, t	: p.-cl, n, fq.-r, hl, l, t:	p.-cl
3	2.9	16.5	WSW : W : Variable	Variable : N	2.4	0.09	238	10, r	: 9, slt.-sh	: v, hy.-shs, hl, t	v, oc.-r, hy.-sh, l, t:	10, fq.-r	: 10, oc.-r, hy.-sh
4	6.1	16.4	N	NNW : NW	1.5	0.13	244	p.-cl	: p.-cl	: 8, cu, n	9, cu, n	: 6, cu, n	: p.-cl
5	4.1	16.4	NNW : WNW : WSW	WSW : SW : S	1.5	0.10	249	p.-cl	: 1	: 10, n	10	: 10, r	
6	1.2	16.4	SW : WSW : NW	NW : NNW : N	9.4	0.63	440	10, r	: 10, li.-shs	: 9, cl.-cu, cu, n, st.-w	10, oc.-slt.-r, w:	10, n, fq.-r	: p.-cl
7	3.6	16.4	NNW : N	NNW : NW : Calm	2.0	0.10	213	p.-cl	: p.-cl	: 9, cu, n	10, n, s	: 10, s, n, r	: 10, fq.-r
8	0.0	16.4	NW : NNW : N	N	2.7	0.23	287	10	: 10	: 10, oc.-m.-r	10, n	: 10, n, oc.-m.-r:	10
9	0.1	16.3	NNW : N : NNE	N : NNE : NE	1.7	0.09	227	9	: 10	: 10, s, n	10, s, n	: 10, cu, n	: p.-cl, d
10	0.0	16.3	NNE : NE : N	N : NNE	0.6	0.01	125	9	: 10, s	: 10, s	9, cu.-s	: 10	: 10
11	6.8	16.3	NE : ENE	NE : ENE : ESE	1.1	0.06	183	10	: 10, s	: 10, n, m.-r	p.-cl, cu, cu.-s:	1	: p.-cl, d
12	5.6	16.3	ENE : NE : NNE	NE : E	0.7	0.03	180	p.-cl	: 10, s, m	: 10, cu.-s	p.-cl, cu, cu.-s:	p.-cl, ei.-cu, cu:	p.-cl, d
13	6.7	16.2	E : NE : NNE	NE : Calm	0.2	0.00	107	10	: 10, s	: 10, s	p.-cl	: 0	: 1, d
14	7.6	16.2	Calm : NE	NE : ENE : ESE	0.6	0.02	126	p.-cl, f	: 10, f	: 10, cu.-s	6, cu, th.-cl:	2, cu, cu.-s	: p.-cl, d
15	1.9	16.2	ENE : NE	NE : ENE	2.0	0.13	259	10	: 10		9, cu, cu.-s	: 10	: 10
16	5.9	16.1	NE	ENE : E : NE	3.4	0.32	342	10, slt.-sh	: 10, slt.-sh	: 9, cu, cu.-s	7, ci, cu, cu.-s:	8, cl.-s, cl.-cu, cu:	9
17	0.1	16.1	NE	ENE : NE	3.2	0.29	342	9	: 10	: 10, s, n, r	10, s, n, slt.-r:	10, s, n	: 10
18	0.0	16.0	NNE : N	N : NNE	2.2	0.34	345	9	: 10	: 10, fq.-r, hy.-shs	10, oc.-slt.-r	: 10	: 10
19	8.7	16.0	N : NNE : NE	Variable: WSW: SW	1.7	0.06	187	p.-cl, h	: 0, h	: 2, cu	p.-cl, cu, so.-ha	: 9	
20	0.2	16.0	SW : WSW	SSW : SW	1.2	0.16	274	9	: 9, cu, cu.-s		10, n	: 10, n, r	: 10, c.-r
21	1.8	15.9	SW	WSW : SW	7.6	0.85	496	9, fq.-r	: 10, oc.-r, w:	10, sc, n, oc.-slt.-r, w	v, w	: 10, w	: 10, slt.-r
22	3.3	15.9	SW	SW	3.9	0.36	386	9, slt.-r	: 10, oc.-slt.-r:	9, cu, n	10, cu, n, s	: p.-cl, r, so.-ha, prh:	p.-cl
23	3.5	15.8	WSW : W : NW	NW : NNW	5.0	0.48	417	9	: 10	: 9, n	9, cu, n, s, w:	p.-cl, cu, n	: p.-cl, d
24	4.0	15.8	W : WSW	SW : SSW	5.8	0.42	380	p.-cl	: p.-cl	: 9	10, se, n, r, w	: 10, r, w	
25	4.9	15.7	SSW : SW	WSW	7.5	0.79	523	p.-cl, slt.-sh:	p.-cl	: 9, cu, n, sc, fq.-shs, l, t, w	p.-cl, sh.-r, w:	p.-cl, st.-w	: p.-cl, w
26	1.0	15.7	WSW : W	W : WNW : WSW	7.5	0.75	506	p.-cl, r, w:	10, st.-w	: 10, n, sc, st.-w	9, n, sc, slt.-sh, w:	p.-cl, ci.-s, n:	p.-cl
27	2.2	15.6	WSW : SW	SW : SSW	2.5	0.16	243	9	: 8	: 9, ci.-cu, cu, n	10, n, s	: 10	
28	7.5	15.6	S : SSE	SSE : S : SSW	2.5	0.14	214	10, slt.-sh	: 10, s, slt.-sh:	6, cl.-s, ci.-cu, so.-ha	5, cl.-s, cu, so.-ha:	7, cl.-s, cl.-cu, cu, so.-ha:	p.-cl, d, li.-shs
29	5.2	15.5	SW : WSW	WSW : SW : SSW	3.7	0.35	370	p.-cl, li.-shs	: 9		p.-cl, cu, cu.-s:	p.-cl, ci.-cu, cu:	9
30	4.7	15.5	SSW : SW	SSE : SE : SW	1.0	0.01	166	9	: ci, ci.-s, s:	9, cu.-s	9, cu, n	: 9	
31	6.0	15.4	NW : Calm : WSW	W : WSW : SW	1.2	0.05	197	10, li.-shs	: p.-cl	: 8, cu	7, ci, ci.-s, cu:	p.-cl	: p.-cl
Means	3.6	16.1	...	...	...	0.24	285						
Number of Columns for Reference.	19	20	21	22	23	24	25	26			27		

The mean *Temperature of Evaporation* for the month was 54°·9, being 3°·0 lower than
 The mean *Temperature of the Dew Point* for the month was 52°·1, being 1°·7 lower than
 The mean *Degree of Humidity* for the month was 81·0, being 8·2 greater than
 The mean *Elastic Force of Vapour* for the month was 0·12389, being 0·0026 less than
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4·8734, being 0·872 less than
 The mean *Weight of a Cubic Foot of Air* for the month was 530 grains, being 3 grains greater than
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 8·7.
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·227. The maximum daily amount of *Sunshine* was 8·7 hours on July 19.
 The highest reading of the *Solar Radiation Thermometer* was 139°·7 on July 12; and the lowest reading of the *Terrestrial Radiation Thermometer* was 40°·0 on July 14.
 The mean daily distribution of *Ozone* for the 12 hours ending 9^h was 1·9; for the 6 hours ending 15^h was 1·7; and for the 6 hours ending 21^h was 0·9.
 The *Proportions of Wind* referred to the cardinal points were N. 9, E. 4, S. 7, and W. 10. One day was calm.
 The *Greatest Pressure of the Wind* in the month was 9·4 lbs. on the square foot on July 6. The mean daily *Horizontal Movement of the Air* for the month was 285 miles; the greatest daily value was 523 miles on July 25; and the least daily value was 107 miles on July 13.
Rain (0·1ⁿ·005 or over) fell on 18 days in the month, amounting to 3·1ⁿ·517, as measured by gauge No. 6 partly sunk below the ground; being 1·1ⁿ·118 greater than the average fall for the 65 years, 1841-1905.

} the average for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Daily Duration of Sunshine.	Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						CLOUDS AND WEATHER.	
			OSLER'S.				ROBINSON'S.			
			General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.		A.M.	P.M.
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Miles.			
Aug. 1	10.4	15.4	SW	SSW : S : ESE	1.2	0.08	191	p-cl : p-cl : 5, ci, cu, n	7, ci, ci-s, cu : p-cl, s, n : 9	
2	7.6	15.3	SE : SW : SSW	SSW : SW	4.9	0.41	365	10, oc-shs : p-cl : 7, cu, n, oc-shs, w	p-cl, slt-sh, w : p-cl : 1, d	
3	12.5	15.3	SSW : SW	SSW : S	2.7	0.24	302	1 : p-cl, m : 6, cu, n, sh-r	5, cu, n : 6, ci, ci-s, cu : 9, d, sh-r	
4	6.4	15.2	SSW : S	Variable : Calm	1.9	0.05	149	9, li-shs : p-cl : 8, ci, ci-s, ci-cu, cu, slt-r	9, shs-r, t : p-cl, ci, ci-cu, cu : 10, slt-r, m	
5	2.1	15.2	W : N : E	SE : W : WSW	1.5	0.03	175	10, oc-m-r : 9 : 10, ci-s, t	9, ci-s, cu-s, so-ha, slt-r, t : 10, r, t : 10, r, slt-m	
6	4.6	15.1	W : WSW	WNW : W : WSW	1.7	0.09	230	p-cl : p-cl : 9, cu, cu-s, s, so-ha	p-cl, cu, n : p-cl : 0, d	
7	4.3	15.1	SW : WSW	SW : W : NW	1.0	0.05	199	0 : p-cl : 6, ci-cu, cu, cu-s	6 : 10, slt-sh : 10	
8	0.1	15.0	NW : NNW : N	N : NNE : NE	0.3	0.00	156	10 : 10, sh-r	10 : 9 : 10, th-r	
9	0.1	15.0	NE : NNE	NE : NNE	1.5	0.09	239	10 : 10	10, th-r, hy-sh, so-ha : p-cl	
10	11.3	14.9	NNE : N	NNE : N	2.5	0.20	259	1 : p-cl, m : 8, cu, n	7, cu : 3, cu : 2, th-cl, d	
11	8.0	14.9	NE : NNE	Variable : Calm : SW	0.6	0.00	128	10 : 10 : 3, th-cl	4, th-cl : 7, ci, ci-s, s : th-cl, d, l	
12	3.9	14.8	SW : SSW	SW : W : WSW	5.0	0.36	367	10 : 10, li-shs : 10, n, se, th-r	8, ci-s, ci-cu, cu : p-cl, ci-s, cu, w, so-ha, prh : th-cl, d	
13	0.0	14.7	WSW : SW	Calm	0.7	0.04	153	th-cl, hy-d : 10, s : 10, th-r	10, fq-m-r : 10, s, n, fq-m-r : p-cl	
14	5.6	14.7	Calm : SE	SE : E : ESE	2.0	0.11	168	0, m : 10	7, cu, n : p-cl, ci-s, cu, n : 9, th-cl	
15	10.6	14.6	SE : ESE : WSW	W : WSW	4.8	0.48	397	9 : 10 : 5, ci, cu, w	4, ci, ci-s, cu, so-ha : 5, ci, ci-s, cu : li-cl	
16	9.5	14.6	SW : WSW	SW : SSW	2.1	0.13	265	li-cl : p-cl, cu : 5, cu,	7, cu, n : p-cl, ci, ci-s, so-ha : p-cl, lu-ha, d	
17	2.4	14.5	SSE : S : SSW	SSW : SW	4.8	0.28	324	0 : p-cl : 9, ci, ci-s, cu, oc-shs	10, s, n, th-r, w : p-cl, ci-s, cu : 1, d	
18	8.9	14.4	WSW : SW	SW : SSW	3.1	0.21	317	1, hy-d : ci : 7, ci, ci-s, cu-s, so-ha	9, ci-s, cu-s, so-ha : 10, ci, ci-s, cu, n : 10, ci-s, th-cl	
19	10.9	14.4	SSW : WSW	WSW : SW	7.7	0.93	544	10, oc-r, w : p-cl, cu, n, w	5, cu, cu-s, n, w : 2, w : 0	
20	4.8	14.3	SW : SSW	SSW : SW	5.6	0.33	384	p-cl : p-cl : 9, cu-s	10, cu-s, n, w : 10, s, se, fq-m-r, w : 1, ci-s	
21	8.6	14.3	SW	WSW	6.6	0.60	475	p-cl, w : 9, w : p-cl, cu, n, w	p-cl, ci-s, cu, so-ha, w : p-cl, lu-ha	
22	1.3	14.2	SW : WSW : NNW	NNW : WSW : SW	1.8	0.02	189	p-cl : 10 : 10, s, n, r	p-cl, cu, n : 9, cu, cu-s, slt-r : 10, li-shs	
23	5.6	14.1	NNW : WSW : SW	SSW : S	2.1	0.08	216	9, slt-r : p-cl : 7, ci-s, cu-s	9, ci-s, cu, n, sh-r : 10, fq-r : 10, fq-shs	
24	6.6	14.1	SSE : WSW	WSW : SW	3.5	0.18	302	9, slt-sh : 9 : 8, cu, n	6, cu : p-cl : 1	
25	1.8	14.0	SW : SSW	SSW : SSE	2.2	0.10	250	th-cl : p-cl : 10, s, n	10, n, s : 9, ci, ci-s, ci-cu, cu : 8	
26	5.6	13.9	SSE : SSW	SW : WSW	5.1	0.36	392	9, r : 9, t-sm, oc-shs : 10, n, se, fq-r	p-cl, ci-s, cu, w : p-cl, w : 0, d	
27	7.6	13.9	SW : WSW	WSW : SSW : S	7.8	0.51	469	p-cl : p-cl, w : 7, cu, n, w	10, th-cl, w : p-cl, n : 0, h, hy-d	
28	0.0	13.8	SSE : S	SSE : SE : SW	6.2	0.37	351	9 : 9 : 10, s, w	10, s, oc-slt-r, w : 10, r, w : p-cl, r, w	
29	6.9	13.8	SSW : S	S : SSW	4.6	0.26	337	9 : p-cl : 7, cu, cu-s, w	10, n, s, se, r : p-cl : p-cl, d, sh-r	
30	5.9	13.7	SSW : SW	WSW : W	4.5	0.25	382	9, oc-shs : p-cl : 8, cu, n, li-shs	8, cu-s, n : 9, s, n : p-cl	
31	3.1	13.6	WSW : W	WSW	1.9	0.11	302	p-cl : p-cl : 10, cu, s	9, cu, n, s : p-cl : 9, d	
Means	5.7	14.5	...	...	...	0.22	290		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	

The mean *Temperature of Evaporation* for the month was 57°.1, being 0°.4 lower than
 The mean *Temperature of the Dew Point* for the month was 53°.8, being 0°.2 lower than
 The mean *Degree of Humidity* for the month was 78.6, being 2.3 greater than
 The mean *Elastic Force of Vapour* for the month was 0.415, being 0.003 less than
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 487.7, being 0.871 greater than
 The mean *Weight of a Cubic Foot of Air* for the month was 528 grains, being the same as
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7.5.
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.393. The maximum daily amount of *Sunshine* was 12.5 hours on August 3.
 The highest reading of the *Solar Radiation Thermometer* was 141°.1 on August 1; and the lowest reading of the *Terrestrial Radiation Thermometer* was 40°.2 on August 17.
 The mean daily distribution of *Ozone* for the 12 hours ending 9^h was 3.6; for the 6 hours ending 15^h was 3.6; and for the 6 hours ending 21^h was 1.3.
 The *Proportions of Wind* referred to the cardinal points were N. 3, E. 3, S. 13, and W. 11. One day was calm.
 The *Greatest Pressure of the Wind* in the month was 7.8 lbs. on the square foot on August 27. The mean daily *Horizontal Movement of the Air* for the month was 290 miles; the greatest daily value was 544 miles on August 19; and the least daily value was 128 miles on August 11.
Rain (0.1005 or over) fell on 17 days in the month, amounting to 2.430, as measured by gauge No. 6 partly sunk below the ground; being 0.086 greater than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Daily Duration of Sunshine.	Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						CLOUDS AND WEATHER.									
			OSLER'S.				ROBINSON'S.											
			General Direction.		Pressure on the Square Foot.		Movement of the Air.		A.M.		P.M.							
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal	Vertical										
Sept. 1	10.7	13.6	WSW : NW : NNW	NNW : Calm	2.5	0.05	189	9	:	1	:	5, cl, cl-s, 'cl-cu, so.-ha	5, ci, ci-cu, cu:	5, ci, cu, d :	p-cl, h			
2	0.4	13.5	SW : NW	NW : WSW : W	1.6	0.03	198	10	:	10, m.-r	:	10, s, n, fq.-m.-r	10, n, s	:	10, s			
3	11.6	13.4	W : NW	NNW : NW	2.3	0.27	343	10	:	p-cl	:	2, cu	2, cu	:	0, d			
4	1.4	13.4	NNW : N	N	4.2	0.42	373	1	:	p-cl	:	10, n	10, n, s	:	9 : 10			
5	0.0	13.3	NNW : N	N : NNW	2.0	0.19	289	10	:	10, n	:		10, n	:	10, n, s			
6	0.1	13.2	NNW : N	N : NNE	1.8	0.18	258	10	:	10	:	9, cu.-s, n	10, s, n	:	10, cu.-s			
7	0.2	13.2	N : NNE	N	2.6	0.25	291	10, slt.-r	:	10	:	10, fq.-th.-r	10, sc, n, fq.-th.-r :	10, n, sc, sh.-r :	10, oc.-th.-r			
8	5.9	13.1	N : NNE	NNE : NE	4.3	0.24	291	10	:	p-cl	:	9, cu, cu.-s, n	p-cl, cu, cu.-s, n :	9, slt.-sh	:	9		
9	2.2	13.0	NNE : NNW : N	N	1.3	0.07	186	p-cl, d	:	p-cl, m	:	10, n, s	9, cu, s, n :	4	:	0, hy.-d		
10	5.9	13.0	Calm : N	NNW : Variable	0.2	0.00	95	1	:	p-cl, m, d	:	4, ci.-s, ci.-cu, cu	7, ci.-s, cu, so.-ha, p-h :	9, ci.-s, cl.-cu, cu.-s :	10, slt.-m			
11	3.6	12.9	Calm : NE	ENE : SE : NE	1.4	0.01	144	10	:	10, m	:	p-cl, cu, s	8, cu, n :	p-cl, cl.-s, n, slt.-sh :	p-cl, d			
12	2.9	12.9	N : NNE	N : NNE : NE	3.8	0.17	241	10	:	9	:	9, cu.-s	9, cu, cu.-s, slt.-sh :	p-cl	:	1, hy.-d		
13	10.4	12.8	N	N	2.6	0.17	264	p-cl, d	:	0	:	2, cu	4, cu, cu.-s :	p-cl	:	9, slt.-sh		
14	0.5	12.8	NNW : N	N : ENE : NE	8.8	0.54	381	10, slt.-sh	:	10, hy.-r	:	10, s, n, sc, r, w	10, n, sc, t, w :	10, s, n	:	9, m.-r		
15	0.3	12.7	NE : NNE	NNE	3.3	0.25	306	10	:	10, oc.-m.-r	:	10, oc.-m.-r	10	:	10, oc.-m.-r : 10			
16	1.9	12.6	NNE	NNE : NE	3.1	0.30	335	10, m.-r	:	10	:	9, cu.-s	9, cu, s :	10, s	:	10		
17	1.6	12.5	NNE : NE	ENE : NE	2.1	0.20	256	10	:	9	:	p-cl, cu.-s, n	10, cu, n	:	9			
18	9.9	12.5	NE : E	E : NE	2.3	0.16	211	9	:	p-cl	:	6, cu, n	5, cu, cu.-s :	p-cl, ci, cl.-s, cu.-s :	p-cl, hy.-d			
19	5.4	12.4	NE : Calm : N	N : NNE	4.0	0.15	211	9, m, d	:	p-cl	:	p-cl, cu	4, cu, cu.-s :	9	:	8		
20	8.8	12.4	N	N	4.3	0.37	329	1	:	p-cl, m	:	7, cu, n	8, cu, cu.-s, w :	p-cl	:	1, th.-cl, d, lu.-ha		
21	8.6	12.3	N : NNW	N : NNE	1.0	0.09	212	1	:	1, ci.-s	:		2, cu, th.-cl :	p-cl	:	p-cl		
22	7.6	12.2	N	N : W : NNW	0.4	0.00	147	1, d	:	1	:	2, cu, th.-cl	0, h	:	2, cu, h, hy.-d :	th.-cl, h, hy.-d, lu.-ha		
23	9.2	12.2	NW : W : NNW	NW : NNW	1.2	0.04	202	th.-cl, hy.-d	:	th.-cl, m, h	:	4, ci, ci.-s	6, ci, ci.-s, cu, so.-ha :	9, cu.-s	:	10		
24	5.9	12.1	NNW : WSW : W	NW : NNW : SW	0.8	0.03	210	10	:	10	:	9, cu.-s	6, cu	:	p-cl, hy.-d : p-cl, hy.-d			
25	0.2	12.0	SW : Calm : SE	SE : ESE	0.3	0.00	113	10	:	9	:	10, cu.-s, s, glm	10, s	:	9 : 9			
26	3.0	12.0	SE : SSE : S	SSW : SW : WSW	2.8	0.09	250	9, d	:	p-cl	:	9, cu, n	9, ci.-cu, cu, n :	p-cl, d	:	p-cl		
27	10.5	11.9	WSW : W	W : WSW : SW	1.4	0.03	229	p-cl	:	1	:	2, ci, cu	1, ci, ci.-s :	1	:	0, hy.-d		
28	11.0	11.8	Calm : SSE : S	S	1.1	0.02	144	0, hy.-d	:	0, f	:	0	0	:	p-cl	:	p-cl, d	
29	1.6	11.8	S : WSW	WSW : SW : W	1.9	0.03	233	p-cl, d	:	9	:	8, slt.-r	10, r	:	9	:	1, d	
30	1.0	11.7	WSW : N : Calm	Calm : SSE : S	0.0	0.00	113	p-cl	:	9, slt.-f	:	p-cl, cu.-s	10, h	:	p-cl	:	1, m, hy.-d	
Means	4.7	12.6	0.15	235											
Number of Column for Reference.	19	20	21	22	23	24	25						26					27

The mean *Temperature of Evaporation* for the month was 52°9, being 1°2 lower than
 The mean *Temperature of the Dew Point* for the month was 49°8, being 1°4 lower than
 The mean *Degree of Humidity* for the month was 79.6, being 0.6 less than
 The mean *Elastic Force of Vapour* for the month was 0.358, being 0.019 less than
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4.678, being 0.871 less than
 The mean *Weight of a Cubic Foot of Air* for the month was 538 grains, being 5 grains greater than
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 6.7.
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.375. The maximum daily amount of *Sunshine* was 11.6 hours on September 3.
 The highest reading of the *Solar Radiation Thermometer* was 128°5 on September 8; and the lowest reading of the *Terrestrial Radiation Thermometer* was 29°1 on September 23.
 The mean daily distribution of *Ozone* for the 12 hours ending 9^h was 0.1; for the 6 hours ending 15^h was 1.3; and for the 6 hours ending 21^h was 0.1.
 The *Proportions of Wind* referred to the cardinal points were N. 16, E. 4, S. 3, and W. 5. Two days were calm.
 The *Greatest Pressure of the Wind* in the month was 8.8 lbs. on the square foot on September 14. The mean daily *Horizontal Movement of the Air* for the month was 235 miles; the greatest daily value was 381 miles on September 14; and the least daily value was 95 miles on September 10.
Rain (0.1005 or over) fell on 3 days in the month, amounting to 0.1740, as measured by gauge No. 6 partly sunk below the ground; being 1.1408 less than the average fall for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Daily Duration of Sunshine.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.						
	hours.	Sun above Horizon.	OSLER'S.		ROBIN-SON'S.									
			General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.							
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	miles.		A.M.	P.M.				
Oct. 1	3.4	11.6	Calm : SE : SSE	SSE : SE : S	0.7	0.03	150	p-cl, f, hy.-d :	p-cl, slt.-f :	5, ci, cu	7, cu, s, n :	p-cl, sh.-r :	p-cl, r, l	
2	6.2	11.6	SW : SSW	SSW : S : SW	12.6	0.53	362	p-cl :	9 :	4, ci, ci.-s, cu, n	4, ci, ci.-s, cu.-s :	9, shs.-r, w :	9, shs.-r, st.-w	
3	7.6	11.5	WSW : W : NW	NW : W	13.9	0.91	503	p-cl, g :	p-cl, sh.-r :	5, cu, w	6, cu.-s :	5, ci, cu.-s, s :	2	
4	3.3	11.4	W : WSW	NW : W : NNW	0.9	0.03	246	1 :		8, ci, ci.-s, th.-cl, so.-ha	10, s, slt.-r :	p-cl :	p-cl, d	
5	4.1	11.4	NW : W : N	NNE : ENE : NE	0.2	0.00	143	9 :	10 :	7, ci, ci.-s	p-cl, ci, ci.-s, cu, s :	10		
6	4.4	11.3	ENE : NE	NE : E : ESE	0.5	0.01	159	p-cl, d :	p-cl :	4, cu	6, cu, cu.-s :	p-cl :	p-cl, hy.-d	
7	6.9	11.2	E : ENE : ESE	ESE : E	1.8	0.10	222	p-cl, m, f :	9 :	5, cu	2, cu :	10	9	
8	1.1	11.2	E : ENE : NE	NE : NNE : Calm	0.6	0.01	140	p-cl :	10 :	10, cu, n	9, cu.-s, n :	10	10	
9	0.0	11.1	Calm	SW : WSW	0.0	0.00	91	10		10	10, s :	10, s	10, slt.-m	
10	3.8	11.0	SW : WSW	WSW : SW : SSW	0.5	0.00	174	10		10	9, s :	p-cl, hy.-d :	li.-cl, hy.-d	
11	2.9	11.0	S : SSW : SW	SW : S : SE	2.2	0.05	201	p-cl, sh.-r :	9 :	9, ci.-s, li.-sc	9, s, sc :	10, s, r	10, r	
12	0.0	10.9	S : Variable : N	NNE : NE	3.7	0.35	356	10, oc.-r :	10, oc.-m.-r :	10, r	10, r		10, e.-r	
13	0.0	10.8	ENE : NE	NE	12.4	0.97	550	10, r :	10, slt.-r :	10, s, sc, slt.-r, w	10, s, sc, st.-w :	10, w	9, sh.-r, st.-w	
14	0.0	10.8	E : ENE	E : ENE	16.0	1.36	552	9, g :	9, st.-w :	10, st.-w	10, w :	10	9	
15	2.1	10.7	NE : E : ESE	SE : ESE	5.5	0.15	238	p-cl :	10 :	9	6, cu, cu.-s :	1, d	p-cl, slt.-f, hy.-d	
16	2.3	10.7	E : ESE : SE	SE : ESE	0.4	0.00	140	8, f :	9, slt.-f :	7, ci.-s, ci.-cu, s, so.-ha	9, ci, ci.-s, cu :	p-cl, cu	p-cl, hy.-d	
17	2.3	10.6	SE : SSE : SSW	SSW : SW : WSW	2.2	0.18	309	p-cl, r :	v, shs.-r :	6, fq.-shs	9, shs.-r :	10, sh.-r	10, oc.-r	
18	4.5	10.6	W : WSW : SW	SW : SSW : WSW	3.9	0.25	340	p-cl :	p-cl :	8, cu, cu.-s	9, s, sc :	10, r	9, oc.-slt.-r, lu.-ha	
19	2.9	10.5	SW : WSW	W : NW : WNW	3.6	0.13	302	8		p-cl :	7, ci.-s, cu, n	8, cu, n :	9	9, oc.-r
20	1.9	10.4	WSW : NE : NNE	NNE : N	3.0	0.21	253	9, r :	10, oc.-slt.-r :	8, cu, slt.-sh	8, cu, cu.-s, n :	10, cu.-s, n	1, d	
21	0.5	10.3	N : NNE : NE	ENE : NE	1.8	0.13	261	p-cl, d :	10 :	10, slt.-sh	9, cu, cu.-s, s :	10, s, sc	9, slt.-r	
22	0.2	10.3	NE : ENE	ENE : E : ESE	0.7	0.03	208	p-cl :	10 :	10, s	9, cu, n :	p-cl	li.-cl, hy.-d	
23	1.0	10.2	NE : Calm : ENE	ENE : E	1.5	0.09	218	p-cl :	9, m :	9, n, s	10, s :	p-cl, hy.-d :	8	
24	1.3	10.1	ESE : E	E	2.3	0.14	260	9		10, n	9, cu, cu.-s :	p-cl, cl.-cu, cu, d :	9	
25	0.3	10.1	ESE : E	SE : ESE	0.4	0.00	169	10		10	10, s, n :	9	10, oc.-slt.-r	
26	0.8	10.0	ESE	ESE : E	2.3	0.17	265	10		p-cl :	9, cu, cu.-s, n	5, ci, ci.-s, cu, h :	9, cu.-s	10
27	0.0	10.0	ESE : E	E	6.4	0.57	413	8		10, n	10, n, w :	10, w	10, slt.-r	
28	3.9	9.9	E : Variable	SW : S : Calm	3.2	0.22	284	10, r :	10, r :	p-cl, ci.-cu, cu	7, ci, ci.-cu, cu		1, hy.-d, slt.-m	
29	0.0	9.9	NE : NNE	NE : NNE	1.2	0.00	152	9, f :	10, r, slt.-f :	10, oc.-m.-r	10, s		10	
30	0.0	9.8	NNE : NE	NE : NNE	3.9	0.33	341	9		10, n, sc	10, n, s	9	9, sh.-r	
31	2.3	9.7	NNE : N	Variable : SW	8.7	0.29	300	10, li.-shs :	9 :	p-cl, cu, s	8, cu, s, n :	10	10, oc.-r, st.-w	
Means	2.3	10.7	...	...	...	0.23	268						
Number of Column for Reference.	19	20	21	22	23	24	25		26				27	

The mean *Temperature of Evaporation* for the month was 51°.1, being 3°.2 higher than the average for the 65 years, 1841-1905.

The mean *Temperature of the Dew Point* for the month was 48°.8, being 3°.1 higher than the average for the 65 years, 1841-1905.

The mean *Degree of Humidity* for the month was 85.1, being 0.1 greater than the average for the 65 years, 1841-1905.

The mean *Elastic Force of Vapour* for the month was 0.1345, being 0.0038 greater than the average for the 65 years, 1841-1905.

The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3.879, being 0.074 greater than the average for the 65 years, 1841-1905.

The mean *Weight of a Cubic Foot of Air* for the month was 538 grains, being 2 grains less than the average for the 65 years, 1841-1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7.9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.212. The maximum daily amount of *Sunshine* was 7.6 hours on October 3.

The highest reading of the *Solar Radiation Thermometer* was 122°.9 on October 2; and the lowest reading of the *Terrestrial Radiation Thermometer* was 29°.5 on October 15.

The mean daily distribution of *Ozone* for the 12 hours ending 9^h was 1.0; for the 6 hours ending 1.5^h was 0.8; and for the 6 hours ending 21^h was 0.4.

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 13, S. 5, and W. 6. Two days were calm.

The *Greatest Pressure of the Wind* in the month was 16.0 lbs. on the square foot on October 14. The mean daily *Horizontal Movement of the Air* for the month was 268 miles; the greatest daily value was 552 miles on October 14; and the least daily value was 91 miles on October 9.

Rain (0.1005 or more) fell on 14 days in the month, amounting to 1.1813, as measured by gauge No. 6 partly sunk below the ground; being 0.1969 less than the average fall for the 65 years, 1841-1905.

MONTH and DAY, 1910.	Daily Duration of Sunshine.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						CLOUDS AND WEATHER.	
	Sun above Horizon.		OSLER'S.				ROBINSON'S.			
			General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.			
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.			A.M.	P.M.
	hours.	hours.			lbs.	lbs.	miles.			
Dec. 1	0.0	8.2	ENE : E	E	7.8	0.64	490	10, r, w : 10, r : 10, m-r	10, s, n, fq-r : 10, c-r : 10, c-r	
2	0.0	8.1	E	E	2.3	0.23	342	10, oc-r : 10, slt-r : 10, s, n, c-r	10, r : 10, c-r	
3	0.0	8.1	E : ESE	ESE	3.0	0.30	318	10, slt-r : 10, fq-th-r : 10, s, n	10, s, n : 10, r : 10, c-r	
4	1.3	8.1	ESE : SSW	S : SE : ESE	2.1	0.10	243	10, slt-r : 10, oc-slt-r : 9, sh-r	9, ci, cu, s, so-ha : 10, r : 10, r	
5	0.8	8.0	S : SSE : SSW	SSW : S : SSE	4.8	0.50	384	9, oc-r : p-cl, oc-slt-r : 9, w	7, ci, ci-s, n : p-cl, cu-s : p-cl, d	
6	0.0	8.0	SSE : SE	S : SSW : WSW	4.9	0.20	290	p-cl : 10 : 9, ci, ci-s, s	10 : p-cl, w : 1	
7	0.3	8.0	SW : SSW	S : SSE : SE	3.6	0.22	308	1 : 9, oc-slt-r : 9, cu-s, n, th-r	9, th-r : p-cl : p-cl	
8	0.0	7.9	SSE : SE	SE : SSE : S	6.3	0.46	327	9 : 9 : 10, s, n	10, s, slt-r, w : 9, r : 9	
9	0.5	7.9	S : SW : SSW	SW : SSW	6.2	0.79	467	9, slt-r : p-cl : 7, slt-r, w	10, r, w : p-cl, fq-r : 10	
10	0.0	7.9	S : SSE	SSW : S	4.2	0.54	406	9, m-r, w : 10, r : 10, slt-r	10, n, s, fq-th-r : 9, li-shs : 9, sh-r	
11	1.7	7.9	S : SSW : SW	SW : SSW	1.7	0.13	265	9, m-r : 9, oc-r : 8, cu-s	8, s, oc-r : v, fq-r : p-cl, oc-m-r	
12	0.0	7.8	SW : SSW : S	S : SSW : SW	7.4	0.49	393	9, slt-r : p-cl : 9, sh-r	10, n, fq-r, w : 9, slt-r, w : p-cl, oc-shs	
13	0.6	7.8	SSW : S	SSW : S	12.2	1.38	600	p-cl : p-cl, oc-slt-r : 9, s, so, sc, slt-r, w	7, ci, ci-s, hl, w : 9, lu-ha, st-w : 9, sh-r, w	
14	2.5	7.8	SSW : SW	SSW : S : SSE	7.7	0.75	494	9, oc-r, w : p-cl : 5, cu-s, s, slt-r, w	p-cl, slt-sh : 10, slt-r, w : 10, fq-r, w	
15	0.3	7.8	SSW : S	WNW : W : WSW	5.3	0.41	401	10, fq-r : 10, slt-r : 10, n, fq-r	p-cl, oc-slt-r : p-cl : p-cl, lu-ha	
16	1.4	7.8	S : SSW : SW	SW : WSW	30.5	2.70	820	9, hy-r, w : 10, r, w : 9, s, n, oc-r, g	9, n, s, oc-r, g : 9, sh-r, g, lu-co : 10, g	
17	0.2	7.8	WSW	W : WNW : N	14.1	1.30	629	p-cl, slt-sh, g : p-cl, slt-w : 8, slt-sh, w	10, n, w : 10, slt-r : 10, slt-r	
18	1.4	7.8	N : NW	N : W	3.5	0.26	344	p-cl : p-cl : 4, cu, s	7, cu, s : p-cl : 8, m, d	
19	0.4	7.8	W : WNW	W : WNW : N	1.6	0.12	314	9, m : 10, r : 9, s	9 : 0, d	
20	0.0	7.8	W : SW : SSW	SW	2.3	0.18	296	1 : p-cl, slt-f : 10, s, so-ha	10, s, n : 9, s, sc : 9, s, sc, slt-r	
21	0.0	7.8	SW	SW : WSW : W	2.6	0.25	329	p-cl, slt-r : 10 : 10, oc-th-r	10, slt-r : 10, slt-r : p-cl	
22	3.9	7.7	W	W	0.2	0.00	196	p-cl, slt-sh : p-cl, ho-fr : 4, ci, cu-s	3, h, slt-f : 1, slt-m : 0, m, ho-fr	
23	0.7	7.8	W	W	7.4	0.67	485	0, ho-fr : 1 : 7, cu-s	10, s : 10, w : 10, slt-r, st-w	
24	0.0	7.8	W : WNW	WNW : NW	9.9	1.24	606	9, st-w : 10, oc-slt-r, w	10, slt-r : p-cl, d : 1, d	
25	1.7	7.8	WNW : NW	NW : W	3.3	0.43	459	p-cl : p-cl : 5, ci-cu, s	9, ci, cu-s : p-cl : 9	
26	0.0	7.8	WNW : NW	NW : W : NNW	6.3	0.54	480	p-cl : 9 : 10, s	10, s, n : 9, r : 10, slt-r, w	
27	0.3	7.8	NNE : N	NNE	5.7	0.70	420	1, ho-fr : p-cl : p-cl, cu-s, s, slt-su	9, s, w : 1 : 0, ho-fr	
28	1.7	7.8	NNE : N : WSW	W : WSW	2.0	0.08	242	1, ho-fr : h, slt-f, ho-fr : 6, s, slt-f	7, cu-s, s, slt-f : p-cl : 9, sl	
29	0.1	7.8	W : WNW	NW : WNW : W	2.0	0.13	355	9 : p-cl, m, slt-sh : 6, ci, ci-s, slt-f	8, ci-s : 9 : p-cl	
30	0.0	7.8	W : WNW : NW	NNE : Calm	1.1	0.06	237	p-cl : p-cl : 8, ci, s	9 : p-cl, h : 0, m, ho-fr	
31	0.0	7.8	WSW : W	W	1.0	0.02	200	m, f, ho-fr : 9 : 10, slt-f	10, s, slt-f : 10, s : 10	
Means	0.6	7.9	...	...	...	0.51	392		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	

The mean Temperature of Evaporation for the month was 43°0, being 4°5 higher than
 The mean Temperature of the Dew Point for the month was 41°0, being 4°3 higher than
 The mean Degree of Humidity for the month was 87.7, being 0.9 less than
 The mean Elastic Force of Vapour for the month was 0.257, being 0.039 greater than
 The mean Weight of Vapour in a Cubic Foot of Air for the month was 25.9, being 0.3 greater than
 The mean Weight of a Cubic Foot of Air for the month was 542 grains, being 10 grains less than
 The mean amount of Cloud for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7.9.
 The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.081. The maximum daily amount of Sunshine was 3.9 hours on December 22.
 The highest reading of the Solar Radiation Thermometer was 71°9 on December 4; and the lowest reading of the Terrestrial Radiation Thermometer was 20°0 on December 28.
 The mean daily distribution of Ozone for the 12 hours ending 9^h was 2.9; for the 6 hours ending 15^h was 1.2; and for the 6 hours ending 21^h was 0.8.
 The Proportions of Wind referred to the cardinal points were N. 4, E. 5, S. 10, and W. 12.
 The Greatest Pressure of the Wind in the month was 30.5 lbs. on the square foot on December 16. The mean daily Horizontal Movement of the Air for the month was 392 miles; the greatest daily value was 320 miles on December 16; and the least daily value was 196 miles on December 22.
 Rain (0.05 or more) fell on 19 days in the month, amounting to 3.544, as measured by gauge No. 6 partly sunk below the ground; being 1.717 greater than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

MONTHLY RESULTS of METEOROLOGICAL ELEMENTS for the YEAR 1910.

MONTH, 1910.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR.								Mean Temperature of Evaporation.	Mean Temperature of the Dew Point.	Mean Degree of Humidity. (Saturation = 100.)
		Highest.	Lowest.	Range in the Month.	Mean of all the Highest.	Mean of all the Lowest.	Mean of the Daily Ranges.	Monthly Mean.	Excess of Mean above Average of 65 Years.			
January.....	in. 29.682	° 55.3	° 20.3	° 35.0	° 44.1	° 35.4	° 8.8	° 40.0	+ 1.4	° 38.1	° 35.1	83.0
February....	29.491	56.0	27.5	28.5	47.9	35.7	12.3	42.0	+ 2.5	40.0	37.6	84.9
March.....	29.979	57.7	25.5	32.2	51.3	34.7	16.6	42.9	+ 1.0	40.2	37.1	80.8
April.....	29.662	65.5	25.5	40.0	55.4	38.8	16.7	46.4	- 0.9	43.2	39.5	77.4
May.....	29.706	78.0	30.4	47.6	63.3	45.2	18.0	53.0	- 0.1	49.3	45.6	76.9
June.....	29.711	82.2	43.6	38.6	71.0	51.6	19.4	60.2	+ 0.8	56.2	52.7	76.9
July.....	29.702	75.7	47.4	28.3	67.0	51.9	15.1	58.1	- 4.6	54.9	52.1	81.0
August.....	29.730	77.4	48.9	28.5	70.8	52.7	18.1	60.8	- 0.9	57.1	53.8	78.6
September..	30.036	75.2	39.1	36.1	64.6	48.5	16.1	56.2	- 1.1	52.9	49.8	79.6
October.....	29.836	73.2	39.6	33.6	59.8	47.6	12.2	53.4	+ 3.4	51.1	48.8	85.1
November...	29.466	54.9	22.3	32.6	45.4	32.4	13.0	38.9	- 4.6	37.0	34.4	84.6
December...	29.537	55.0	27.1	27.9	48.3	40.0	8.4	44.6	+ 4.7	43.0	41.0	87.7
Means.....	29.712	Highest 82.2	Lowest 20.3	Annual Range 61.9	57.4	42.9	14.6	49.7	+ 0.1	46.9	44.0	81.4

MONTH, 1910.	Mean Elastic Force of Vapour.	Mean Weight of Vapour in a Cubic Foot of Air.	Mean Weight of a Cubic Foot of Air.	Mean Amount of Ozone.	Mean Amount of Cloud. (0-10.)	RAIN.		WIND.										From Robinson's Anemometer. Mean Daily Horizontal Movement of the Air.		
						Number of Rainy Days.	Amount collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground.	From Osler's Anemometer.											Number of Calm or nearly Calm Hours.	Mean Daily Pressure on the Square Foot.
								Number of Hours of Prevalence of each Wind referred to different Points of Azimuth.												
								N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.					
January.....	in. 0.204	grs. 2.4	grs. 55.0	2.8	7.3	15	in. 1.722	h 47	h 5	h 0	h 12	h 81	h 341	h 147	h 68	h 43	lbs. 0.36	miles. 366		
February....	0.225	2.6	54.5	4.6	7.1	24	2.687	26	2	0	25	192	302	91	31	3	0.48	407		
March.....	0.221	2.5	55.3	3.1	5.6	10	1.103	108	119	78	57	96	130	23	36	97	0.17	251		
April.....	0.242	2.8	54.3	5.1	7.8	16	2.619	65	91	30	27	123	173	92	72	47	0.30	321		
May.....	0.306	3.5	53.6	4.9	6.7	19	2.243	151	125	97	45	28	136	66	66	30	0.32	308		
June.....	0.399	4.4	52.8	4.7	7.5	13	2.077	119	85	75	28	46	202	62	49	54	0.18	251		
July.....	0.389	4.4	53.0	4.5	8.7	18	3.517	113	127	36	18	46	217	89	70	28	0.24	285		
August.....	0.415	4.7	52.8	8.5	7.5	17	2.430	53	37	16	44	132	304	108	20	30	0.22	290		
September..	0.358	4.1	53.8	1.5	6.7	3	0.740	265	116	25	29	30	60	45	95	55	0.15	235		
October.....	0.345	3.9	53.8	2.2	7.9	14	1.813	54	148	182	76	46	102	60	27	49	0.23	268		
November...	0.199	2.3	54.8	1.5	6.5	17	3.569	80	41	29	54	39	166	195	72	44	0.33	325		
December...	0.257	2.9	54.2	4.9	7.9	19	3.544	47	23	62	52	146	165	165	72	12	0.51	392		
Sums.....	...	...	...	...	...	185	28.064	1128	919	630	467	1005	2298	1143	678	492	...	...
Means.....	0.297	3.4	54.0	4.0	7.3	...	...	...	...	...	...	...	...	...	...	...	0.29	308

The greatest recorded pressure of the wind on the square foot in the year was 30.7 lbs. on February 20.
 The greatest recorded daily horizontal movement of the air in the year was 820 miles on December 16.
 The least recorded daily horizontal movement of the air in the year was 79 miles on January 6.

MONTHLY MEAN DEGREE of HUMIDITY (Saturation = 100) at every HOUR of the DAY, as deduced by GLAISHER'S TABLES from the corresponding AIR and EVAPORATION TEMPERATURES.

Hour, Greenwich Civil Time.	1910.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight	86	89	91	84	88	89	91	89	90	90	89	89	89	
1 ^h	88	89	91	86	88	90	92	91	90	90	89	89	89	
2	88	90	92	88	89	92	92	92	90	91	90	90	90	
3	89	90	93	88	90	92	91	91	90	92	89	90	90	
4	89	90	92	89	91	93	92	91	90	92	89	90	91	
5	88	90	92	89	91	92	92	91	90	92	90	90	91	
6	90	89	90	89	90	90	90	90	90	93	90	90	90	
7	89	90	91	84	87	85	88	87	88	92	90	91	88	
8	89	89	88	80	81	80	83	81	84	90	89	91	85	
9	88	86	84	75	76	74	78	75	79	87	87	90	82	
10	86	85	78	71	72	70	76	70	74	83	85	89	78	
11	83	82	72	69	68	66	73	68	70	78	83	86	75	
Noon	81	79	68	67	67	66	72	66	69	73	81	85	73	
13 ^h	79	77	65	66	65	65	71	64	67	72	79	83	71	
14	79	75	65	65	63	62	67	64	67	73	78	83	70	
15	79	76	66	66	62	64	67	65	66	76	77	84	71	
16	82	77	68	67	62	63	68	66	68	78	80	86	72	
17	83	80	71	71	65	65	70	69	71	80	82	86	74	
18	84	83	76	75	67	68	74	73	75	83	84	85	77	
19	86	86	79	78	72	75	79	77	80	85	85	86	81	
20	86	86	84	80	77	82	84	83	84	86	86	86	84	
21	86	88	85	84	81	83	86	85	85	88	87	87	85	
22	87	89	86	84	84	86	88	86	87	89	88	87	87	
23	88	89	89	84	86	88	90	89	88	89	87	87	88	
24	87	89	90	85	87	89	91	89	90	90	88	89	89	
Means	0 ^h .-23 ^h .	86	85	81	78	78	78	81	79	80	85	86	87	82
	1 ^h .-24 ^h .	86	85	81	78	78	78	81	79	80	85	86	87	82

TOTAL AMOUNT of SUNSHINE registered in each HOUR of the DAY in each MONTH, as derived from the RECORDS of the CAMPBELL-STOKES SELF-REGISTERING INSTRUMENT for the YEAR 1910.

Month, 1910.	Registered Duration of Sunshine in the Hour ending																Total registered Duration of Sunshine in each Month.	Corresponding aggregate Period during which the Sun was above the Horizon.	Proportion of Sunshine.	Mean Altitude of the Sun at Noon.
	5 ^h .	6 ^h .	7 ^h .	8 ^h .	9 ^h .	10 ^h .	11 ^h .	Noon.	13 ^h .	14 ^h .	15 ^h .	16 ^h .	17 ^h .	18 ^h .	19 ^h .	20 ^h .				
January	h	h	h	h	2'2	5'7	8'0	h	9'0	9'1	9'7	8'3	1'6	...	...	...	53'6	h	0'207	18
February	...	...	...	2'2	7'2	9'0	8'0	9'1	10'3	9'8	8'1	5'1	1'1	...	...	...	69'9	h	0'253	26
March	...	...	2'8	9'9	12'0	13'5	17'1	18'0	17'2	16'3	13'7	15'9	11'1	2'0	...	...	149'5	h	0'408	37
April	...	3'0	7'4	9'3	11'8	10'9	12'0	12'5	11'3	11'2	10'7	10'2	9'9	8'0	1'6	...	129'8	h	0'314	48
May	0'9	6'9	10'5	11'2	13'1	16'2	18'1	18'9	19'3	19'0	18'9	18'9	17'5	16'0	12'2	1'8	219'4	h	0'456	57
June	3'2	8'0	9'0	9'9	10'3	11'6	11'8	12'5	14'6	16'5	17'1	16'2	15'3	13'0	11'9	3'9	184'8	h	0'374	62
July	0'9	4'4	4'4	6'4	6'2	6'9	5'2	6'9	9'1	11'3	11'9	10'8	10'1	9'5	7'0	1'9	112'9	h	0'227	60
August	0'6	4'5	10'0	11'6	14'0	16'8	16'8	15'2	16'3	16'4	14'3	12'9	12'0	9'7	5'7	0'2	177'0	h	0'393	52
September	...	0'3	5'0	10'6	14'2	14'6	15'7	13'9	15'0	13'8	12'4	13'5	9'6	3'7	...	...	142'3	h	0'375	41
October	...	...	0'2	3'2	5'2	7'4	11'7	12'1	11'7	7'5	6'2	3'8	1'0	...	...	...	70'0	h	0'212	30
November	...	...	...	0'4	4'2	7'4	6'5	7'8	7'7	6'8	7'0	2'4	0'1	...	...	...	50'3	h	0'189	20
December	...	...	...	...	0'4	3'7	3'1	2'5	4'0	3'5	2'6	...	...	...	...	...	19'8	h	0'081	16
For the Year	5'6	27'1	49'3	74'7	100'8	123'7	134'0	138'4	145'6	141'8	131'2	111'3	87'7	61'9	38'4	7'8	1379'3	h	0'309	...

The hours are reckoned from *apparent* midnight.

READINGS of THERMOMETERS on the ORDINARY STAND in the MAGNETIC PAVILION ENCLOSURE, in the YEAR 1910.

(The readings of the maximum and minimum thermometers apply to the twenty-four hours ending at 21h.)

Table with columns for Days of the Month, Dry-Bulb Thermometers (4 ft. above the Ground), Wet-Bulb Thermometer (4 ft. above the Ground), and their respective readings for January, February, March, and April. Each month's data is presented in a grid with 'd' for day and temperature values for various times of day (9h, Noon, 15h, 21h). Mean values are provided at the bottom of each month's section.

EXCESS of MEAN MONTHLY READINGS of THERMOMETERS placed in a STEVENSON'S SCREEN above those of the corresponding THERMOMETERS on the adjacent ORDINARY STAND in the MAGNETIC PAVILION ENCLOSURE in the YEAR 1910.

(The readings of the maximum and minimum thermometers apply to the twenty-four hours ending at 21^h.)

MONTH, 1910.	Dry Bulb Thermometers 4 ft. above the Ground.						Wet Bulb Thermometer 4 ft. above the Ground.			
	Maximum.	Minimum.	9 ^h .	Noon.	15 ^h .	21 ^h .	9 ^h .	Noon.	15 ^h .	21 ^h .
January	+ 0.1	+ 0.5	+ 0.1	+ 0.1	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2	+ 0.2
February	- 0.2	+ 0.6	+ 0.2	0.0	0.0	+ 0.4	+ 0.1	- 0.1	- 0.1	+ 0.3
March	- 0.4	+ 0.8	+ 0.1	+ 0.1	+ 0.1	+ 0.5	0.0	0.0	0.0	+ 0.4
April	- 1.1	+ 0.6	- 0.3	- 0.4	- 0.3	+ 0.2	- 0.3	- 0.4	- 0.3	+ 0.2
May	- 1.3	+ 0.6	- 0.4	- 0.5	- 0.3	+ 0.3	- 0.4	- 0.4	- 0.1	+ 0.3
June	- 2.3	+ 0.6	- 0.8	- 0.9	- 0.7	+ 0.3	- 0.5	- 0.5	- 0.4	+ 0.2
July	- 1.9	+ 0.5	- 0.6	- 0.6	- 0.7	+ 0.1	- 0.4	- 0.4	- 0.5	+ 0.1
August	- 2.5	+ 0.7	- 0.6	- 0.9	- 0.8	+ 0.2	- 0.5	- 0.7	- 0.5	+ 0.1
September	- 1.3	+ 0.6	- 0.3	- 0.4	- 0.4	+ 0.3	- 0.4	- 0.3	- 0.3	+ 0.1
October	- 0.8	+ 0.7	- 0.2	- 0.2	- 0.1	+ 0.2	- 0.1	- 0.1	0.0	+ 0.2
November	- 0.3	+ 0.8	+ 0.2	0.0	+ 0.2	+ 0.5	+ 0.2	0.0	+ 0.1	+ 0.4
December	+ 0.1	+ 0.6	+ 0.1	- 0.1	+ 0.1	+ 0.3	- 0.1	- 0.2	0.0	+ 0.2
Means	- 1.0	+ 0.6	- 0.2	- 0.3	- 0.2	+ 0.3	- 0.2	- 0.2	- 0.2	+ 0.2

AMOUNT of RAIN COLLECTED in each MONTH of the YEAR 1910.

MONTH, 1910.	Number of Rainy Days (0.1 st or over).	Monthly Amount of Rain collected in each Gauge.							
		Self-registering Gauge of Osler's Anemometer.	Second Gauge at Osler's Anemometer.	On the roof of the Octagon Room.	On the roof of the Magnetic Observatory.	On the roof of the Photographic Thermometer Shed.	Gauges partly sunk in the ground.		
							In Magnetic Pavilion Enclosure.	In Observatory Grounds.	In Magnetic Pavilion Enclosure.
No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.		
January	15	0.799	0.843	1.194	1.270	1.603	1.722	1.652	1.683
February	24	1.348	1.194	1.767	2.110	2.647	2.687	2.611	2.651
March	10	0.469	0.481	0.742	0.904	1.053	1.103	1.020	1.046
April	16	1.723	1.749	2.039	2.400	2.658	2.619	2.660	2.585
May	19	1.332	1.579	1.872	2.066	2.184	2.243	2.201	2.187
June	13	1.386	1.548	1.851	2.023	2.089	2.077	2.108	2.073
July	18	2.207	2.455	3.008	3.320	3.504	3.517	3.477	3.463
August	17	1.787	1.848	2.138	2.302	2.410	2.430	2.388	2.378
September	3	0.405	0.457	0.588	0.674	0.748	0.740	0.746	0.730
October	14	1.016	1.111	1.446	1.669	1.777	1.813	1.698	1.772
November	17	2.026	2.179	2.592	2.998	3.291	3.569	3.254	3.422
December	19	2.124	2.246	2.414	2.968	3.308	3.544	3.131	3.397
Sums	185	16.622	17.690	21.651	24.704	27.272	28.064	26.946	27.387
Height of receiving Surface	{ above the ground } { above mean sea level }	ft. in. 50.8	ft. in. 50.8	ft. in. 38.4	ft. in. 21.6	ft. in. 10.0	ft. in. 0.5	ft. in. 0.5	ft. in. 1.0
		ft. in. 205.6	ft. in. 205.6	ft. in. 193.2	ft. in. 176.4	ft. in. 164.10	ft. in. 149.6	ft. in. 155.3	ft. in. 150.1

(I.)—Readings of a Thermometer whose bulb is sunk to the depth of 25·6 feet (24 French feet) below the surface of the soil, at Noon on every Day of the Year.

1910.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	52·60	51·82	51·08	50·27	49·68	49·47	49·66	50·44	51·33	52·19	52·75	52·95
2	52·60	51·78	51·07	50·26	49·70	49·47	49·67	50·47	51·36	52·22	52·75	52·95
3	52·58	51·77	51·03	50·23	49·70	49·48	49·70	50·50	51·40	52·24	52·75	52·95
4	52·55	51·75	51·01	50·21	49·67	49·46	49·71	50·54	51·42	52·26	52·76	52·96
5	52·53	51·72	50·98	50·20	49·65	49·46	49·72	50·55	51·44	52·28	52·76	52·98
6	52·49	51·72	50·97	50·19	49·65	49·46	49·75	50·59	51·48	52·30	52·80	52·96
7	52·47	51·71	50·95	50·15	49·65	49·45	49·75	50·62	51·49	52·32	52·82	52·96
8	52·45	51·65	50·91	50·13	49·61	49·45	49·79	50·65	51·53	52·34	52·83	52·96
9	52·45	51·61	50·90	50·12	49·60	49·47	49·80	50·67	51·55	52·36	52·84	52·95
10	52·42	51·60	50·86	50·10	49·59	49·47	49·84	50·71	51·58	52·38	52·85	52·95
11	52·40	51·59	50·83	50·11	49·59	49·45	49·86	50·74	51·64	52·42	52·85	52·94
12	52·35	51·55	50·80	50·07	49·57	49·48	49·88	50·77	51·65	52·42	52·86	52·94
13	52·31	51·54	50·74	50·05	49·57	49·49	49·90	50·80	51·70	52·44	52·90	52·93
14	52·34	51·49	50·72	50·01	49·57	49·50	49·94	50·85	51·71	52·45	52·90	52·92
15	52·30	51·47	50·69	50·00	49·55	49·50	49·95	50·85	51·75	52·47	52·91	52·91
16	52·28	51·44	50·67	49·97	49·56	49·50	49·98	50·89	51·78	52·51	52·90	52·90
17	52·22	51·43	50·65	49·95	49·54	49·49	50·01	50·90	51·78	52·54	52·89	52·88
18	52·20	51·40	50·60	49·95	49·53	49·51	50·03	50·90	51·83	52·55	52·91	52·86
19	52·17	51·35	50·58	49·92	49·51	49·52	50·07	50·97	51·86	52·56	52·92	52·85
20	52·13	51·35	50·55	49·94	49·53	49·55	50·09	51·00	51·87	52·56	52·91	52·84
21	52·10	51·32	50·54	49·90	49·52	49·55	50·13	51·04	51·90	52·60	52·90	52·83
22	52·06	51·29	50·54	49·88	49·54	49·55	50·15	51·05	51·94	52·62	52·90	52·80
23	52·03	51·26	50·50	49·85	49·52	49·57	50·18	51·09	51·98	52·61	52·92	52·78
24	52·02	51·25	50·45	49·80	49·50	49·57	50·20	51·12	52·00	52·64	52·94	52·78
25	51·99	51·22	50·45	49·81	49·48	49·58	50·23	51·15	52·02	52·67	52·94	52·75
26	51·95	51·17	50·40	49·79	49·48	49·60	50·25	51·17	52·05	52·69	52·93	52·73
27	51·91	51·15	50·40	49·78	49·48	49·61	50·30	51·20	52·08	52·70	52·96	52·68
28	51·92	51·12	50·37	49·77	49·49	49·64	50·34	51·22	52·11	52·72	52·94	52·66
29	51·87		50·34	49·75	49·48	49·65	50·35	51·26	52·13	52·72	52·93	52·65
30	51·85		50·33	49·73	49·49	49·65	50·40	51·30	52·15	52·74	52·95	52·65
31	51·84		50·30		49·47		50·42	51·32		52·74		52·61
Means	52·24	51·48	50·68	50·00	49·56	49·52	50·00	50·88	51·75	52·49	52·87	52·85

The mean of the twelve monthly values is 51°·19.

(II.)—Readings of a Thermometer whose bulb is sunk to the depth of 12·8 feet (12 French feet) below the surface of the soil, at Noon on every Day of the Year.

1910.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	50·15	48·73	47·17	46·80	47·20	48·70	51·81	53·97	55·60	56·01	55·40	53·01
2	50·12	48·67	47·18	46·80	47·21	48·79	51·88	53·99	55·61	56·02	55·33	52·89
3	50·03	48·59	47·16	46·80	47·27	48·91	52·01	54·04	55·69	55·92	55·30	52·72
4	49·97	48·51	47·15	46·80	47·30	49·00	52·10	54·10	55·68	55·93	55·25	52·66
5	49·90	48·46	47·14	46·80	47·33	49·10	52·22	54·12	55·68	55·90	55·15	52·55
6	49·82	48·40	47·11	46·79	47·40	49·19	52·32	54·19	55·74	55·90	55·20	52·40
7	49·77	48·32	47·12	46·79	47·41	49·29	52·40	54·25	55·77	55·90	55·16	52·30
8	49·73	48·22	47·10	46·79	47·42	49·40	52·50	54·29	55·82	55·88	55·09	52·20
9	49·69	48·11	47·10	46·80	47·46	49·50	52·59	54·33	55·81	55·89	55·04	52·09
10	49·68	48·10	47·07	46·78	47·50	49·59	52·66	54·39	55·88	55·88	54·99	52·00

(II.)—Readings of a Thermometer whose bulb is sunk to the depth of 12·8 feet (12 French feet) below the surface of the soil, at Noon on every Day of the Year—concluded.

1910.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
11	49·60	48·01	47·04	46·80	47·55	49·69	52·77	54·46	55·94	55·87	54·91	51·85
12	49·52	47·92	47·01	46·80	47·59	49·80	52·85	54·50	55·98	55·78	54·88	51·79
13	49·50	47·88	46·95	46·79	47·60	49·90	52·90	54·60	55·95	55·79	54·85	51·69
14	49·51	47·80	46·96	46·78	47·66	50·00	52·99	54·70	55·90	55·78	54·77	51·60
15	49·41	47·76	46·93	46·79	47·70	50·10	53·05	54·75	55·98	55·77	54·69	51·51
16	49·40	47·70	46·91	46·79	47·72	50·18	53·10	54·78	55·99	55·81	54·54	51·42
17	49·34	47·68	46·92	46·78	47·73	50·25	53·18	54·80	55·98	55·81	54·41	51·32
18	49·31	47·58	46·90	46·80	47·78	50·40	53·18	54·88	56·02	55·80	54·39	51·29
19	49·28	47·57	46·90	46·80	47·80	50·57	53·26	54·91	56·05	55·80	54·30	51·20
20	49·22	47·51	46·90	46·81	47·87	50·67	53·29	54·99	56·00	55·73	54·15	51·15
21	49·11	47·45	46·88	46·82	47·88	50·73	53·38	55·07	56·01	55·76	54·03	51·10
22	49·12	47·40	46·90	46·88	47·96	50·83	53·39	55·12	56·02	55·71	53·95	51·00
23	49·08	47·38	46·90	46·90	47·99	50·95	53·46	55·10	56·04	55·69	53·90	51·00
24	49·08	47·34	46·88	46·91	48·04	51·03	53·50	55·20	56·05	55·68	53·80	51·00
25	49·00	47·28	46·88	46·94	48·07	51·13	53·59	55·21	56·05	55·68	53·70	50·96
26	48·98	47·22	46·88	46·97	48·16	51·29	53·61	55·28	56·02	55·66	53·60	50·90
27	48·90	47·22	46·88	47·00	48·23	51·40	53·70	55·30	56·05	55·61	53·51	50·81
28	48·92	47·20	46·87	47·07	48·33	51·50	53·80	55·35	56·07	55·60	53·37	50·79
29	48·88		46·83	47·08	48·39	51·60	53·80	55·41	56·00	55·53	53·20	50·78
30	48·81		46·84	47·12	48·50	51·74	53·89	55·50	56·00	55·50	53·12	50·71
31	48·78		46·81		48·59		53·91	55·51		55·42		50·69
Means	49·41	47·86	46·98	46·85	47·76	50·17	53·00	54·74	55·91	55·77	54·47	51·59

The mean of the twelve monthly values is 51°·21.

(III.)—Readings of a Thermometer whose bulb is sunk to the depth of 6·4 feet (6 French feet) below the surface of the soil, at Noon on every Day of the Year.

1910.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	47·40	45·59	45·48	45·87	48·12	52·46	57·02	57·99	59·67	57·94	55·82	49·10
2	47·41	45·44	45·47	45·91	48·17	52·60	57·06	58·05	59·60	57·92	55·70	48·61
3	47·44	45·31	45·44	45·93	48·20	52·76	57·08	58·17	59·59	57·85	55·60	48·65
4	47·43	45·20	45·41	45·92	48·26	52·88	57·10	58·30	59·50	57·88	55·43	48·64
5	47·43	45·13	45·38	45·91	48·31	53·00	57·18	58·37	59·47	57·88	55·20	48·60
6	47·48	45·07	45·37	45·90	48·40	53·11	57·19	58·47	59·45	57·85	55·08	48·65
7	47·53	44·92	45·36	45·92	48·43	53·24	57·20	58·59	59·38	57·85	54·82	48·70
8	47·55	44·90	45·36	45·96	48·48	53·41	57·20	58·60	59·38	57·80	54·56	48·80
9	47·53	44·94	45·40	46·00	48·50	53·57	57·18	58·68	59·28	57·80	54·30	48·86
10	47·57	45·08	45·41	46·00	48·53	53·73	57·11	58·77	59·26	57·77	54·02	48·90
11	47·55	45·11	45·51	46·10	48·58	53·87	57·11	58·83	59·21	57·77	53·80	48·90
12	47·57	45·11	45·61	46·14	48·58	54·12	57·10	58·88	59·18	57·67	53·60	49·00
13	47·59	45·10	45·70	46·17	48·57	54·37	57·07	58·90	59·06	57·68	53·40	49·00
14	47·60	45·11	45·78	46·27	48·61	54·55	57·08	59·01	58·95	57·63	53·16	49·07
15	47·51	45·11	45·80	46·40	48·70	54·78	57·08	59·08	58·90	57·58	52·90	49·10

(III.)—Readings of a Thermometer whose bulb is sunk to the depth of 6·4 feet (6 French feet) below the surface of the soil, at Noon on every Day of the Year—concluded.

1910.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
16	47·45	45·09	45·84	46·52	48·79	54·95	57·10	59·10	58·85	57·59	52·70	49·10
17	47·40	45·10	45·82	46·69	48·95	55·08	57·20	59·15	58·80	57·49	52·51	49·10
18	47·37	45·10	45·80	46·82	49·11	55·30	57·20	59·22	58·72	57·35	52·41	49·20
19	47·37	45·10	45·78	46·92	49·30	55·50	57·35	59·31	58·70	57·21	52·21	49·28
20	47·36	45·13	45·78	47·08	49·61	55·61	57·43	59·39	58·60	57·10	52·00	49·30
21	47·30	45·20	45·70	47·18	49·80	55·71	57·48	59·40	58·59	57·01	51·78	49·32
22	47·28	45·25	45·70	47·30	50·10	55·88	57·52	59·42	58·55	56·90	51·55	49·29
23	47·24	45·38	45·65	47·43	50·38	56·13	57·57	59·52	58·49	56·78	51·36	49·30
24	47·05	45·42	45·63	47·60	50·64	56·31	57·60	59·60	58·39	56·67	51·10	49·30
25	46·88	45·45	45·63	47·75	50·88	56·52	57·70	59·60	58·25	56·56	50·82	49·28
26	46·70	45·40	45·60	47·86	51·18	56·70	57·72	59·61	58·17	56·43	50·51	49·21
27	46·50	45·48	45·66	47·95	51·44	56·89	57·80	59·65	58·10	56·30	50·31	49·12
28	46·40	45·48	45·66	47·99	51·69	57·00	57·87	59·70	58·08	56·20	49·77	49·11
29	46·10		45·70	48·02	51·82	57·00	57·81	59·70	57·99	56·10	49·60	49·05
30	45·89		45·78	48·07	52·06	57·00	57·89	59·70	57·90	56·01	49·52	48·93
31	45·75		45·80		52·21		57·91	59·70		55·90		48·78
Means	47·18	45·20	45·61	46·72	49·50	54·80	57·35	59·05	58·87	57·24	52·85	49·01

The mean of the twelve monthly values is 51°·95.

(IV.)—Readings of a Thermometer whose bulb is sunk to the depth of 3·2 feet (3 French feet) below the surface of the soil, at Noon on every Day of the Year.

1910.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	44·08	40·18	42·39	43·58	47·18	54·49	58·89	59·87	60·40	57·61	53·70	43·70
2	44·05	40·24	42·26	43·41	47·20	54·40	58·63	60·10	60·30	57·70	53·40	43·70
3	44·18	40·37	42·21	43·28	47·40	54·69	58·51	60·23	60·30	57·74	52·90	44·00
4	44·57	40·41	42·22	43·29	47·38	54·81	58·31	60·30	60·20	57·81	52·15	44·13
5	44·74	40·37	42·18	43·35	47·40	54·95	58·11	60·40	60·03	57·55	51·50	44·30
6	44·69	40·37	42·20	43·50	47·40	55·02	58·20	60·42	59·84	57·43	51·00	44·80
7	44·62	40·93	42·50	43·51	47·40	55·16	58·25	60·43	59·63	57·51	50·47	45·19
8	44·48	41·61	42·80	43·63	47·32	55·51	58·12	60·36	59·51	57·50	50·21	45·47
9	44·40	42·00	43·10	43·80	47·31	56·02	57·95	60·47	59·31	57·50	49·98	45·61
10	44·60	41·91	43·51	43·90	47·14	56·47	57·82	60·54	59·23	57·53	49·50	45·85
11	44·97	41·61	43·80	44·40	47·03	57·00	57·70	60·47	59·01	57·48	49·00	46·08
12	44·91	41·60	43·92	44·34	47·10	57·32	57·70	60·47	59·00	57·34	48·80	46·34
13	44·51	41·43	43·80	44·73	47·38	57·70	57·80	60·60	58·95	57·27	48·51	46·52
14	44·02	41·54	43·68	45·20	47·78	57·92	58·10	60·78	58·70	56·94	48·50	46·61
15	43·90	41·78	43·34	45·62	48·21	57·98	58·30	60·88	58·50	56·54	48·60	46·72
16	44·10	41·79	43·10	45·92	48·76	57·90	58·51	61·10	58·41	56·27	48·53	46·90
17	44·40	41·70	42·95	46·02	49·32	57·80	58·70	61·20	58·40	55·95	48·20	47·00
18	44·52	41·90	43·00	46·10	49·99	57·90	58·74	61·30	58·48	55·81	47·70	47·00
19	44·40	42·42	43·00	45·90	50·50	58·18	58·78	61·30	58·50	55·75	47·11	46·90
20	44·28	42·78	42·80	46·30	51·09	58·66	58·67	61·30	58·40	55·60	46·80	46·70

(IV.)—Readings of a Thermometer whose bulb is sunk to the depth of 3·2 feet (3 French feet) below the surface of the soil, at Noon on every Day of the Year—concluded.

1910.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
21	43·92	42·95	42·60	46·90	51·62	59·04	58·77	61·35	58·19	55·40	46·50	46·60
22	43·46	43·02	42·50	47·30	52·39	59·56	58·97	61·36	57·78	55·04	46·01	46·61
23	43·02	43·10	42·60	47·60	52·72	59·91	59·13	61·33	57·49	54·80	45·52	46·58
24	42·30	43·02	42·60	47·58	53·13	59·85	59·18	61·23	57·23	54·58	45·00	46·37
25	42·10	42·90	42·79	47·37	53·37	59·74	59·10	61·18	57·16	54·39	44·72	46·40
26	41·98	42·78	42·95	47·24	53·52	59·58	59·01	61·20	57·20	54·30	44·63	46·37
27	41·45	42·80	43·30	47·07	53·53	59·40	58·90	61·20	57·30	54·31	44·50	46·08
28	40·90	42·58	43·38	46·95	53·77	59·17	58·90	61·10	57·40	54·40	44·00	45·70
29	40·60		43·49	47·04	53·94	59·01	59·01	60·89	57·32	54·30	44·15	45·10
30	40·42		43·68	47·02	54·30	59·00	59·34	60·67	57·48	54·20	44·19	44·70
31	40·31		43·67		54·38		59·52	60·50		54·00		44·48
Means	43·51	41·79	42·98	45·40	49·90	57·47	58·57	60·79	58·66	56·15	48·19	45·76

The mean of the twelve monthly values is 50°·76.

(V.)—Readings of a Thermometer whose bulb is sunk to the depth of 1 inch below the surface of the soil, at Noon on every Day of the Year.

1910.												
Days of the Month.	January.	February.	March	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	42·0	39·2	40·4	42·0	52·0	58·0	59·2	63·4	61·0	59·2	51·2	43·8
2	46·0	39·3	42·8	43·1	51·2	58·7	59·2	63·2	61·0	61·1	48·0	43·8
3	47·4	39·6	42·0	42·2	48·2	58·3	58·0	62·8	61·2	58·0	46·0	43·0
4	45·8	37·0	41·9	44·0	48·0	59·2	58·8	63·1	59·0	57·0	46·0	44·3
5	44·9	38·7	43·1	45·0	48·0	60·0	59·1	62·4	59·2	58·0	43·0	48·1
6	43·3	45·0	46·0	44·5	49·1	60·0	60·2	62·0	59·4	58·0	43·9	47·0
7	43·1	47·3	46·0	45·0	48·0	61·0	59·0	62·0	59·1	58·9	46·7	47·0
8	43·6	45·0	46·0	44·0	48·0	63·0	58·8	63·0	59·6	59·0	45·8	46·9
9	47·0	40·2	48·0	45·0	45·0	65·0	58·0	62·1	58·1	58·4	43·1	47·8
10	47·8	39·5	47·2	48·0	46·2	63·0	57·2	61·9	57·3	58·5	42·0	48·0
11	45·0	43·0	45·3	47·2	49·3	62·8	58·8	62·2	59·3	58·9	45·0	48·8
12	42·0	39·0	44·0	48·8	50·3	65·0	60·0	63·3	59·5	56·3	42·0	48·2
13	40·0	43·0	42·5	51·0	50·0	65·0	60·2	63·0	58·5	56·8	47·2	48·4
14	45·6	41·5	41·5	50·0	54·0	61·0	61·0	64·0	57·4	53·9	47·1	48·4
15	45·3	42·2	40·0	50·0	55·0	61·0	61·0	65·2	59·0	53·2	46·2	49·2
16	48·0	39·0	41·2	50·3	56·1	60·0	60·7	64·0	59·2	54·5	42·5	49·4
17	45·0	46·0	44·8	46·9	55·0	59·2	62·0	64·0	59·0	55·7	34·1	48·0
18	44·3	46·0	41·2	48·0	57·3	62·3	60·4	63·0	59·5	55·0	40·9	45·9
19	43·0	47·0	40·3	52·0	57·5	64·0	59·6	64·2	59·1	55·0	41·4	40·2
20	41·0	45·0	40·0	52·0	60·4	65·9	61·3	64·0	56·0	52·3	41·5	45·1
21	39·0	45·0	42·0	54·0	60·0	66·1	62·9	64·0	54·2	52·3	38·2	48·5
22	35·5	45·0	44·0	52·5	59·0	64·8	61·9	62·0	55·6	53·2	38·2	46·0
23	37·0	44·2	42·0	47·5	60·6	63·9	61·3	62·0	55·0	52·5	36·2	44·0
24	41·0	43·0	44·0	50·0	59·4	62·1	60·3	63·3	56·9	52·4	40·0	49·0
25	38·0	45·0	44·8	48·1	56·1	61·9	60·8	62·2	58·5	53·9	40·9	45·1

(V.)—Readings of a Thermometer whose bulb is sunk to the depth of 1 inch below the surface of the soil, at Noon on every Day of the Year—concluded.

1910.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
26	35.0	43.0	44.0	47.0	56.6	59.3	58.6	64.2	60.0	55.0	38.2	44.0
27	34.0	41.0	44.0	47.3	57.9	59.3	60.0	61.0	58.2	54.8	42.0	41.0
28	38.0	41.6	44.4	50.0	60.1	61.7	62.4	61.2	58.0	54.5	42.3	38.1
29	36.0		44.2	46.8	60.0	60.9	62.1	60.9	60.1	53.2	39.0	42.0
30	36.2		43.5	47.1	57.4	60.0	62.1	61.0	58.3	53.0	41.0	42.5
31	37.4		42.4		57.0		63.6	60.2		51.2		40.8
Means	41.8	42.5	43.3	47.6	54.0	61.7	60.3	62.7	58.5	55.6	42.7	45.8

The mean of the twelve monthly values is 51°37.

(VI.)—Readings of a Thermometer within the case covering the deep-sunk Thermometers, whose bulb is placed on a level with their scales, at Noon on every Day of the Year.

1910.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	40.0	40.2	39.1	42.8	51.8	62.0	58.1	68.3	63.9	65.0	49.0	44.0
2	50.6	38.7	48.6	47.9	49.0	61.0	60.0	64.8	62.9	67.0	44.0	42.0
3	48.1	40.6	45.2	47.0	52.0	68.0	57.2	65.5	63.0	56.0	44.0	40.0
4	43.9	36.5	46.4	48.9	49.2	64.0	61.0	68.5	57.0	60.0	42.5	46.0
5	42.8	41.9	49.6	45.3	48.3	62.0	60.2	63.8	57.3	60.0	41.0	51.0
6	39.8	51.0	51.2	46.0	54.0	68.0	60.5	62.8	58.5	60.0	41.2	47.9
7	39.9	53.0	51.8	45.1	51.5	64.3	58.8	66.0	57.4	62.0	47.1	48.8
8	42.6	43.5	49.5	44.0	49.0	69.8	58.0	63.0	61.2	59.5	45.4	48.0
9	51.3	35.2	51.3	49.9	46.0	72.8	55.0	60.4	55.4	57.1	41.1	49.6
10	48.9	43.5	48.0	47.0	51.0	63.0	55.0	64.6	60.2	60.8	38.9	48.0
11	42.8	44.2	46.4	53.5	55.3	64.3	58.0	65.9	62.3	62.2	43.0	49.2
12	37.0	39.2	42.0	55.0	56.0	69.2	61.0	66.1	61.0	50.7	39.0	49.0
13	37.0	47.0	42.0	56.0	55.0	67.0	60.0	62.7	60.0	54.2	50.0	50.0
14	52.5	41.0	45.0	51.7	61.3	64.0	63.0	69.3	56.0	51.4	48.3	50.0
15	46.0	43.0	42.0	55.0	64.0	65.9	60.6	70.5	61.0	50.7	46.0	50.7
16	51.5	42.0	45.1	55.0	64.1	62.0	61.0	69.3	62.0	56.0	38.0	50.0
17	42.5	52.0	47.5	45.0	57.0	58.0	63.0	65.0	60.0	56.1	40.0	48.2
18	45.2	49.0	37.5	50.0	63.5	68.0	57.2	68.0	62.0	56.0	39.9	43.9
19	42.0	50.0	41.0	56.0	65.0	73.2	63.1	68.0	61.3	54.0	39.0	47.5
20	39.0	48.0	42.0	57.0	71.7	75.4	64.6	69.0	55.0	49.0	39.0	46.0
21	34.0	46.0	44.5	60.0	60.0	69.8	65.9	67.0	56.0	52.7	35.0	49.5
22	31.6	45.5	48.0	53.0	66.0	66.3	63.1	60.0	57.5	52.5	31.0	41.0
23	37.0	45.0	45.5	46.0	69.4	65.0	61.8	65.0	58.0	51.0	35.0	44.0
24	41.0	44.0	44.0	50.0	63.1	61.4	60.7	68.0	58.2	52.0	39.6	52.0
25	34.5	47.5	49.3	50.6	54.4	61.2	60.0	63.8	62.0	55.0	39.0	43.2
26	29.0	44.0	44.0	48.4	60.3	57.0	57.0	65.0	63.0	56.2	35.0	42.8
27	26.0	41.0	45.2	53.8	60.2	59.0	62.8	62.0	62.0	54.8	43.9	36.0
28	42.0	43.3	49.6	56.3	69.7	65.0	68.0	63.5	65.0	57.0	38.4	31.5
29	36.0		44.1	48.3	60.3	62.5	62.0	62.5	63.0	51.0	34.0	41.5
30	32.0		49.4	49.7	57.9	60.9	65.3	63.8	58.3	51.2	41.0	42.0
31	41.1		43.3		57.0		66.9	62.0		49.5		38.5
Means	40.9	44.1	45.7	50.5	57.8	65.0	60.9	65.3	60.0	55.8	40.9	45.5

The mean of the twelve monthly values is 52°70.

ABSTRACT of the CHANGES of the DIRECTION of the WIND, as derived from the Records of OSLER'S ANEMOMETER in the Year 1910.

(It is to be understood that the direction of the wind was nearly constant in the intervals between the times given in the second column and those next following in the first column.)

Directions are given to 16 points of the Compass, 0=N, 1=NNE 15=NNW.

Note.—The time is expressed in civil reckoning, commencing at midnight and counting from 0^h to 24^h.

Table with columns for Greenwich Civil Time, Change of Direction, Amount of Motion, and sub-columns for Direct/Retrograde. It is divided into sections for January, Jan.-cont., Feb.-cont., and February.

ABSTRACT of the CHANGES of the DIRECTION of the WIND—continued.

Table with 16 columns: Greenwich Civil Time (From/To), Change of Direction, Amount of Motion (Direct/Retrograde), and similar for other months. The table is organized into four main sections: June-cont., July-cont., and August. Each section contains detailed data for each day, including wind direction changes and the number of observations. A 'Sums' row is provided at the end of the July section.

ABSTRACT of the CHANGES of the DIRECTION of the WIND—continued.

Table with 17 columns: Greenwich Civil Time (From, To), Change of Direction, Amount of Motion (Direct, Retrograde), and Amount of Motion (Direct, Retrograde). Rows are organized by month: Oct.—cont., Nov.—cont., and November.

ABSTRACT of the CHANGES of the DIRECTION of the WIND—concluded.

Greenwich Civil Time.		Change of Direction.	Amount of Motion.		Greenwich Civil Time.		Change of Direction.	Amount of Motion.		Greenwich Civil Time.		Change of Direction.	Amount of Motion.					
From	To		Direct.	Retrograde.	From	To		Direct.	Retrograde.	From	To		Direct.	Retrograde.				
December.			Dec.—cont.			Dec.—cont.			Dec.—cont.									
d	h		d	h		d	h		d	h		d	h		d	h		
1.	6		1.	7	3—4	1	9.	3 $\frac{1}{2}$	9.	4	10—9	1	16.	7	16.	9 $\frac{1}{2}$	8—10	2
3.	4 $\frac{1}{2}$		3.	5	4—5	1	9.	13 $\frac{1}{2}$	9.	14 $\frac{1}{2}$	9—10	1	16.	23	17.	1 $\frac{1}{2}$	10—11	1
4.	3 $\frac{1}{2}$		4.	5 $\frac{1}{2}$	5—9	4	9.	16	9.	17	10—9	1	17.	11	17.	11	11—13	2
4.	12 $\frac{1}{2}$		4.	13	9—8	1	9.	20 $\frac{3}{4}$	9.	21	9—8	1	17.	19	17.	20 $\frac{1}{2}$	13—0	3
4.	14 $\frac{1}{2}$		4.	18	8—5	3	10.	7 $\frac{1}{4}$	10.	8	8—7	1	18.	5 $\frac{1}{4}$	18.	6 $\frac{1}{4}$	0—14	2
4.	20		4.	21 $\frac{1}{2}$	5—8	3	10.	10	10.	10 $\frac{1}{2}$	7—8	1	18.	9	18.	10 $\frac{1}{2}$	14—0	2
5.	2 $\frac{1}{4}$		5.	2 $\frac{1}{2}$	8—7	1	10.	15	10.	15 $\frac{1}{4}$	8—9	1	18.	20 $\frac{1}{2}$	18.	23 $\frac{1}{4}$	0—12	4
5.	5 $\frac{1}{4}$		5.	6	7—8	1	10.	23 $\frac{1}{4}$	11.	0	9—8	1	19.	9	19.	10	12—13	1
5.	8		5.	10 $\frac{1}{2}$	8—9	1	11.	1	11.	3	8—10	2	19.	11	19.	12	13—12	1
5.	16 $\frac{1}{2}$		5.	17	9—8	1	11.	14 $\frac{1}{4}$	11.	15	10—9	1	19.	14	19.	15 $\frac{1}{4}$	12—13	1
5.	22		5.	23	8—7	1	11.	20 $\frac{1}{4}$	11.	21	9—10	1	19.	18	19.	18 $\frac{1}{2}$	13—0	3
6.	3 $\frac{3}{4}$		6.	4 $\frac{1}{4}$	7—6	1	12.	2	12.	3 $\frac{1}{4}$	10—9	1	19.	23 $\frac{1}{4}$	19.	23 $\frac{1}{4}$	0—11	5
6.	9 $\frac{1}{4}$		6.	10	6—7	1	12.	9 $\frac{1}{4}$	12.	10	9—8	1	20.	0 $\frac{3}{4}$	20.	1	11—12	1
6.	12 $\frac{1}{4}$		6.	12 $\frac{1}{2}$	7—8	1	12.	15 $\frac{1}{4}$	12.	17 $\frac{1}{2}$	8—10	2	20.	3 $\frac{1}{2}$	20.	3 $\frac{3}{4}$	12—10	2
6.	14 $\frac{3}{4}$		6.	15	8—9	1	12.	23	13.	0 $\frac{1}{2}$	10—9	1	20.	7	20.	7 $\frac{1}{4}$	10—9	1
6.	16 $\frac{1}{4}$		6.	18	9—11	2	13.	3 $\frac{1}{2}$	13.	4 $\frac{1}{2}$	9—8	1	20.	10 $\frac{1}{4}$	20.	10 $\frac{1}{2}$	9—10	1
6.	21 $\frac{1}{2}$		6.	22	11—10	1	13.	8	13.	10 $\frac{1}{2}$	8—9	1	21.	17 $\frac{1}{4}$	21.	19 $\frac{3}{4}$	10—12	2
7.	1 $\frac{1}{4}$		7.	2	10—9	1	13.	15 $\frac{3}{4}$	13.	16 $\frac{1}{2}$	9—8	1	22.	10	22.	10 $\frac{1}{2}$	12—13	1
7.	12		7.	12 $\frac{3}{4}$	9—8	1	13.	18 $\frac{1}{4}$	13.	19 $\frac{1}{4}$	8—9	1	22.	11 $\frac{1}{2}$	22.	12	13—12	1
7.	15		7.	15 $\frac{1}{4}$	8—7	1	14.	3	14.	3 $\frac{1}{2}$	9—10	1	24.	10	24.	10 $\frac{1}{2}$	12—13	1
7.	17		7.	17 $\frac{1}{2}$	7—6	1	14.	8 $\frac{3}{4}$	14.	9 $\frac{1}{4}$	10—9	1	24.	16 $\frac{1}{4}$	24.	16 $\frac{1}{2}$	13—14	1
7.	23 $\frac{1}{4}$		8.	0	6—7	1	14.	13 $\frac{3}{4}$	14.	14	9—8	1	24.	20 $\frac{1}{2}$	24.	21	14—13	1
8.	2 $\frac{1}{4}$		8.	3	7—6	1	15.	0	15.	0 $\frac{1}{2}$	8—9	1	25.	4	25.	4 $\frac{1}{2}$	13—14	1
8.	4 $\frac{1}{2}$		8.	5	6—7	1	15.	4	15.	6	9—8	1	25.	20	25.	20 $\frac{3}{4}$	14—12	2
8.	7		8.	7 $\frac{1}{2}$	7—6	1	15.	11	15.	12 $\frac{1}{2}$	8—13	5	26.	0	26.	1	12—13	1
8.	13 $\frac{1}{2}$		8.	14	6—7	1	15.	14	15.	14 $\frac{1}{2}$	13—12	1	26.	5	26.	5 $\frac{3}{4}$	13—14	1
8.	17		8.	18	7—8	1	15.	20	15.	20 $\frac{1}{2}$	12—11	1	26.	8	26.	8 $\frac{1}{2}$	14—13	1
9.	1 $\frac{1}{2}$		9.	2 $\frac{1}{4}$	8—10	2	15.	23	16.	1 $\frac{1}{4}$	11—8	3	26.	10 $\frac{3}{4}$	26.	11	13—14	1
													Sums		82	74		

Excess of Motion in each Month.

	Direct.	Retrograde.		Direct.	Retrograde.
1910.			1910.		
January	30		July	16	
February	3		August	47	
March	54		September.....		2
April	14		October.....	18	
May	43		November.....		7
June.....	17		December.....	8	

The whole excess of direct motion for the year was $241 = 5422\frac{1}{2}^{\circ}$.

MEAN HOURLY MEASURES of the HORIZONTAL MOVEMENT of the AIR in each MONTH, and GREATEST and LEAST HOURLY MEASURES, as derived from the RECORDS of ROBINSON'S ANEMOMETER.

Hour ending	1910.												Mean for the Year.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
h	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	15'3	16'3	9'3	12'0	10'7	8'4	10'3	10'2	9'3	10'3	12'9	16'1	11'8
2	14'9	16'4	8'8	11'8	11'1	9'3	10'2	10'1	9'1	10'2	13'5	15'7	11'8
3	14'5	16'5	9'3	11'7	11'0	9'3	10'5	9'9	8'6	10'0	13'1	14'9	11'6
4	14'6	16'5	9'5	11'3	10'5	8'5	10'8	9'4	8'3	9'6	13'9	14'5	11'4
5	14'1	15'5	9'2	11'2	10'9	7'9	10'9	9'8	7'9	9'4	13'2	14'5	11'2
6	14'0	15'4	9'0	11'2	11'1	8'2	11'2	9'4	8'0	9'4	12'7	15'4	11'3
7	14'3	15'5	9'1	11'4	11'4	9'5	11'6	9'9	8'2	9'1	12'3	15'5	11'5
8	14'4	15'5	8'9	11'8	12'3	9'5	12'0	11'2	8'6	10'0	11'8	15'2	11'8
9	14'8	16'3	9'0	12'4	13'4	10'2	12'5	12'1	8'9	9'6	12'5	15'6	12'3
10	15'3	16'9	10'1	13'2	14'1	11'1	12'7	12'7	10'1	10'9	12'2	15'6	12'9
11	15'4	17'6	10'8	14'1	14'4	11'2	13'2	13'5	10'3	11'8	12'7	16'7	13'5
Noon.	15'9	18'9	12'1	14'9	15'4	11'3	13'2	14'1	10'5	12'4	13'9	17'5	14'2
13 ^h	17'1	20'1	13'0	16'1	15'8	12'3	14'2	14'8	11'1	13'8	15'1	18'6	15'2
14	16'0	19'5	12'7	15'8	15'0	12'5	13'6	14'5	11'5	13'0	14'7	17'8	14'7
15	15'9	19'5	13'4	16'3	15'3	13'0	14'1	15'8	12'1	13'5	14'5	17'8	15'1
16	15'3	18'9	13'3	16'6	15'5	13'1	13'7	15'5	11'8	13'4	14'3	17'1	14'9
17	13'9	18'1	12'9	16'6	15'3	13'0	13'7	14'7	11'4	12'5	14'7	16'8	14'5
18	14'3	16'7	11'7	15'5	14'0	12'3	12'5	13'9	10'9	11'8	14'0	16'5	13'7
19	14'5	16'6	10'5	13'7	13'3	11'5	11'6	13'5	10'9	11'6	14'8	17'0	13'3
20	15'5	16'3	10'2	13'1	12'0	10'9	11'5	12'0	10'0	11'5	14'3	17'5	12'9
21	16'1	15'9	9'8	12'2	11'8	10'3	10'5	11'0	9'6	11'6	13'7	16'9	12'5
22	16'5	16'4	9'7	12'2	11'3	9'6	10'7	10'8	9'4	11'2	13'5	16'6	12'3
23	17'0	16'2	9'5	13'0	11'6	9'2	10'4	10'5	9'5	10'5	13'4	16'1	12'2
Midnight.	16'2	15'6	9'3	12'4	11'1	8'7	9'8	10'6	8'9	10'8	13'7	15'9	11'9
Means	15'2	17'0	10'5	13'4	12'8	10'5	11'9	12'1	9'8	11'2	13'6	16'3	12'9
Greatest Hourly Measures.....}	37	47	31	37	35	34	32	36	28	41	43	52	...
Least Hourly Measures.....}	1	3	0	0	0	0	1	1	1	1	0	2	...

MEAN ELECTRICAL POTENTIAL of the ATMOSPHERE, from THOMSON'S ELECTROMETER, for each CIVIL DAY.

(Each result is the mean of Twenty-four Hourly Ordinates from the Photographic Register. The scale employed is arbitrary: the sign + indicates positive potential.)

1910.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	+ 534	+ 600	+ 769	+ 801	+ 572	+ 368	+ 325	+ 250	+ 420	+ 164	+ 387	- 52
2	+ 84	+ 266	+ 473	+ 740	+ 394	+ 306	+ 287	+ 238	+ 254	+ 76	+ 737	- 88
3	+ 148	+ 712	+ 535	+1045	+ 829	+ 557	+ 349	+ 310	+ 435	+ 530	+ 358	+ 112
4	+ 205	+ 878	+ 528	+ 734	+1015	+ 327	+ 487	+ 221	+ 401	+ 385	+ 824	+ 12
5	+ 252	+ 666	+ 477	+ 842	+ 754	...	+ 343	+ 315	+ 497	+ 270	+ 951	+ 164
6	+ 269	+ 74	+ 344	+ 542	+ 700	...	+ 332	+ 507	+ 532	+ 236	+ 456	+ 269
7	+ 302	+ 134	+ 448	+ 715	+1032	+ 38	+ 434	+ 333	+ 448	+ 215	+ 451	+ 271
8	+ 285	+ 332	+ 331	+ 887	+ 900	+ 87	+ 377	+ 236	+ 331	+ 224	+ 717	+ 171
9	+ 73	+ 637	+ 28	+1183	+1007	+ 192	+ 357	+ 181	+ 538	+ 242	+ 982	+ 83
10	+ 185	+ 473	+ 472	+ 383	+1026	+ 97	+ 371	+ 264	+ 532	+ 237	+ 850	+ 103
11	+ 300	+ 428	+ 525	+ 563	+ 903	+ 60	+ 244	+ 206	+ 206	...	+ 590	+ 128
12	+ 799	+ 715	+ 278	+ 476	+ 513	+ 47	+ 249	+ 219	+ 467	+ 209	+ 810	+ 143
13	+ 815	+ 93	+ 794	+ 240	+ 312	+ 199	+ 268	+ 154	+ 679	+ 195	+ 99	+ 193
14	+ 243	+ 434	+1017	+ 590	+ 394	+ 535	+ 227	+ 146	+ 267	+ 212	+ 310	+ 149
15	+ 207	+ 378	+1104	+ 448	+ 382	+ 394	+ 212	+ 259	+ 205	+ 348	+ 430	+ 250
16	+ 69	+ 530	+ 921	+ 340	+ 301	+ 340	+ 185	+ 349	+ 229	+ 302	+ 991	+ 203
17	+ 359	+ 185	+ 967	+ 702	+ 347	+ 389	+ 132	+ 212	+ 372	+ 105	+1063	+ 356
18	+ 304	+ 232	+ 945	+ 625	+ 221	+ 181	+ 152	+ 270	+ 196	+ 205	+ 912	+ 640
19	+ 681	+ 165	+1172	+ 265	+ 192	+ 187	+ 298	+ 254	+ 327	+ 295	+1035	+ 407
20	+ 847	+ 108	+ 868	+ 324	+ 290	+ 225	+ 208	+ 232	+ 635	+ 364	+ 912	+ 352
21	+1184	+ 401	+ 803	+ 406	+ 322	+ 324	+ 140	+ 203	+ 773	+ 362	+1115	+ 210
22	+1250	+ 373	+ 919	+ 564	+ 252	+ 458	+ 214	+ 373	+ 494	+ 255	+1079	+ 619
23	+ 418	+ 558	+1112	+ 877	+ 424	+ 370	+ 408	+ 329	+ 537	+ 214	+ 494	+ 449
24	+ 377	+ 538	+1011	...	+ 711	+ 282	+ 287	+ 241	+ 494	+ 262	+ 350	+ 203
25	+ 945	+ 430	+ 719	+ 742	+ 812	+ 224	+ 141	+ 285	+ 193	+ 257	+ 610	+ 600
26	+1398	+ 737	+ 603	+1079	+ 707	+ 372	+ 440	+ 132	+ 207	+ 215	+ 828	+ 606
27	+1217	+ 884	+ 732	+ 855	+ 556	+ 507	+ 312	+ 310	+ 260	+ 180	+ 57	+ 842
28	+ 275	+ 524	+ 762	+ 595	+ 473	+ 274	+ 224	+ 108	+ 249	+ 175	+ 542	+1143
29	+ 801		+ 683	+1097	+ 220	+ 253	+ 261	+ 161	+ 177	+ 247	+ 886	+ 791
30	+ 991		+ 915	+1025	+ 595	+ 477	+ 298	+ 210	+ 230	+ 260	+ 144	+ 940
31	+ 837		+ 968		+ 448		+ 281	+ 296		+ 548		+ 995
Means	+ 537	+ 446	+ 717	+ 679	+ 568	+ 288	+ 285	+ 252	+ 386	+ 260	+ 666	+ 363

MONTHLY MEAN ELECTRICAL POTENTIAL of the ATMOSPHERE, from THOMSON'S ELECTROMETER,
at every HOUR of the DAY.

(The results depend on the Photographic Register, using all days of complete record. The scale employed is arbitrary :
the sign + indicates positive potential.)

Hour, Greenwich Civil Time.	1910.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight	+ 502	+ 499	+ 697	+ 790	+ 562	+ 306	+ 300	+ 277	+ 355	+ 244	+ 678	+ 332	+ 462	
1 ^h	+ 478	+ 413	+ 621	+ 729	+ 527	+ 293	+ 276	+ 242	+ 321	+ 231	+ 629	+ 312	+ 423	
2	+ 445	+ 344	+ 569	+ 659	+ 497	+ 274	+ 247	+ 219	+ 295	+ 209	+ 556	+ 311	+ 385	
3	+ 426	+ 328	+ 556	+ 591	+ 480	+ 263	+ 229	+ 210	+ 286	+ 178	+ 552	+ 289	+ 366	
4	+ 386	+ 284	+ 555	+ 531	+ 451	+ 277	+ 221	+ 202	+ 275	+ 195	+ 561	+ 282	+ 352	
5	+ 367	+ 286	+ 568	+ 549	+ 449	+ 284	+ 234	+ 205	+ 280	+ 186	+ 568	+ 277	+ 354	
6	+ 403	+ 291	+ 569	+ 597	+ 467	+ 289	+ 241	+ 221	+ 283	+ 179	+ 589	+ 287	+ 368	
7	+ 446	+ 334	+ 585	+ 622	+ 524	+ 280	+ 245	+ 232	+ 284	+ 192	+ 599	+ 308	+ 388	
8	+ 473	+ 345	+ 632	+ 614	+ 556	+ 254	+ 260	+ 235	+ 331	+ 205	+ 622	+ 328	+ 405	
9	+ 523	+ 394	+ 744	+ 679	+ 589	+ 279	+ 270	+ 253	+ 375	+ 240	+ 678	+ 350	+ 448	
10	+ 594	+ 421	+ 834	+ 781	+ 615	+ 321	+ 324	+ 309	+ 468	+ 286	+ 790	+ 399	+ 512	
11	+ 619	+ 435	+ 891	+ 734	+ 609	+ 298	+ 359	+ 278	+ 485	+ 300	+ 776	+ 379	+ 514	
Noon	+ 638	+ 423	+ 834	+ 692	+ 598	+ 266	+ 309	+ 265	+ 445	+ 280	+ 710	+ 376	+ 486	
13 ^h	+ 640	+ 433	+ 738	+ 592	+ 606	+ 264	+ 315	+ 243	+ 400	+ 266	+ 694	+ 390	+ 465	
14	+ 617	+ 418	+ 687	+ 610	+ 573	+ 240	+ 302	+ 196	+ 390	+ 266	+ 730	+ 394	+ 452	
15	+ 592	+ 450	+ 693	+ 651	+ 543	+ 193	+ 290	+ 184	+ 408	+ 270	+ 676	+ 403	+ 446	
16	+ 597	+ 472	+ 744	+ 682	+ 537	+ 235	+ 313	+ 220	+ 456	+ 306	+ 702	+ 450	+ 476	
17	+ 629	+ 549	+ 804	+ 654	+ 575	+ 283	+ 297	+ 269	+ 476	+ 334	+ 696	+ 442	+ 501	
18	+ 647	+ 599	+ 841	+ 680	+ 609	+ 316	+ 307	+ 284	+ 477	+ 338	+ 690	+ 444	+ 519	
19	+ 611	+ 597	+ 851	+ 741	+ 636	+ 308	+ 308	+ 287	+ 473	+ 335	+ 712	+ 418	+ 523	
20	+ 570	+ 602	+ 821	+ 736	+ 648	+ 344	+ 288	+ 282	+ 458	+ 300	+ 719	+ 382	+ 513	
21	+ 564	+ 601	+ 792	+ 730	+ 680	+ 351	+ 286	+ 304	+ 441	+ 314	+ 668	+ 400	+ 511	
22	+ 572	+ 605	+ 801	+ 821	+ 681	+ 354	+ 309	+ 321	+ 414	+ 296	+ 692	+ 375	+ 520	
23	+ 554	+ 576	+ 775	+ 829	+ 615	+ 341	+ 312	+ 304	+ 392	+ 278	+ 690	+ 391	+ 505	
24	+ 502	+ 498	+ 704	+ 767	+ 565	+ 319	+ 300	+ 270	+ 358	+ 237	+ 665	+ 379	+ 464	
Means	0 ^h .-23 ^h .	+ 537	+ 446	+ 717	+ 679	+ 568	+ 288	+ 285	+ 252	+ 386	+ 260	+ 666	+ 363	+ 454
	1 ^h .-24 ^h .	+ 537	+ 446	+ 717	+ 678	+ 568	+ 289	+ 285	+ 251	+ 386	+ 259	+ 665	+ 365	+ 454
Number of Days employed.	31	28	31	29	31	28	31	31	30	30	30	31	...	

MONTHLY MEAN ELECTRICAL POTENTIAL of the ATMOSPHERE, from THOMSON'S ELECTROMETER, on RAINY DAYS,
at every HOUR of the DAY.

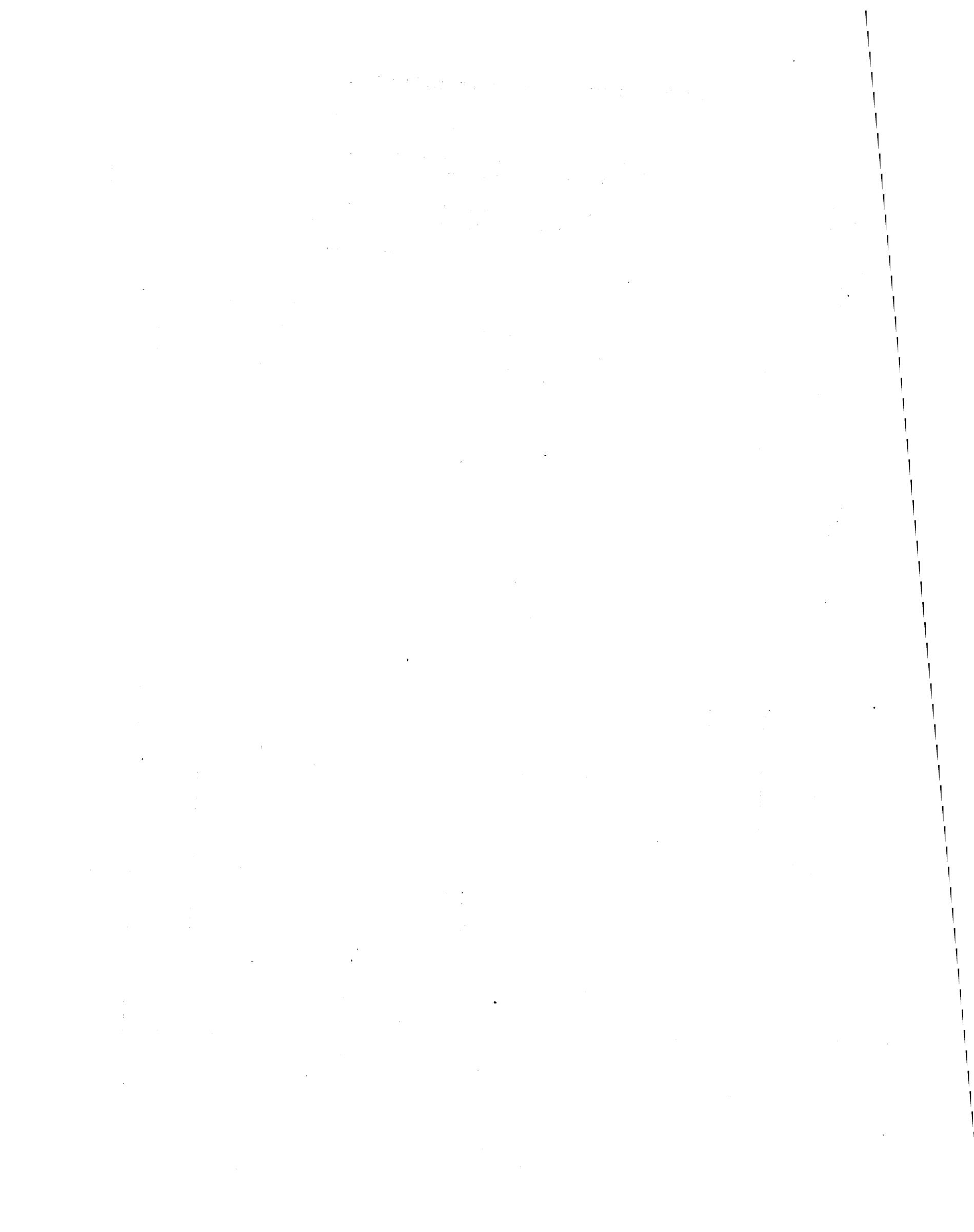
(The results depend on the Photographic Register, using all days on which the rainfall amounted to or exceeded 0ⁱⁿ.020.
The scale employed is arbitrary: the sign + indicates positive potential.)

Hour, Greenwich Civil Time.	1910.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight	+ 331	+ 433	+ 216	+ 649	+ 544	+ 353	+ 319	+ 256	+ 340	+ 179	+ 547	+ 143	+ 359	
1 ^h	+ 318	+ 337	+ 132	+ 578	+ 526	+ 354	+ 280	+ 197	+ 235	+ 163	+ 507	+ 131	+ 313	
2	+ 269	+ 257	+ 272	+ 503	+ 509	+ 300	+ 245	+ 167	+ 200	+ 145	+ 414	+ 144	+ 285	
3	+ 265	+ 245	+ 384	+ 412	+ 446	+ 285	+ 221	+ 167	+ 215	+ 94	+ 424	+ 126	+ 274	
4	+ 194	+ 201	+ 356	+ 299	+ 383	+ 297	+ 207	+ 149	+ 200	+ 141	+ 435	+ 119	+ 248	
5	+ 144	+ 213	+ 278	+ 370	+ 385	+ 278	+ 207	+ 159	+ 105	+ 154	+ 444	+ 126	+ 239	
6	+ 176	+ 225	+ 212	+ 490	+ 407	+ 302	+ 213	+ 187	- 50	+ 145	+ 460	+ 115	+ 240	
7	+ 194	+ 256	+ 196	+ 553	+ 526	+ 292	+ 221	+ 208	- 170	+ 179	+ 461	+ 136	+ 254	
8	+ 221	+ 256	+ 326	+ 562	+ 589	+ 251	+ 259	+ 221	+ 225	+ 189	+ 467	+ 147	+ 309	
9	+ 276	+ 321	+ 556	+ 636	+ 607	+ 274	+ 261	+ 248	+ 80	+ 200	+ 521	+ 170	+ 346	
10	+ 347	+ 339	+ 724	+ 740	+ 586	+ 316	+ 293	+ 304	+ 320	+ 212	+ 609	+ 192	+ 415	
11	+ 375	+ 348	+ 764	+ 740	+ 571	+ 308	+ 345	+ 273	+ 335	+ 248	+ 582	+ 161	+ 421	
Noon	+ 387	+ 326	+ 674	+ 689	+ 650	+ 269	+ 268	+ 256	+ 315	+ 223	+ 439	+ 142	+ 387	
13 ^h	+ 390	+ 356	+ 566	+ 398	+ 668	+ 320	+ 313	+ 253	+ 235	+ 207	+ 386	+ 191	+ 357	
14	+ 355	+ 341	+ 522	+ 479	+ 634	+ 246	+ 319	+ 170	+ 205	+ 209	+ 426	+ 209	+ 343	
15	+ 308	+ 359	+ 574	+ 533	+ 587	+ 151	+ 296	+ 154	+ 220	+ 213	+ 327	+ 222	+ 329	
16	+ 296	+ 363	+ 654	+ 556	+ 567	+ 201	+ 322	+ 191	+ 280	+ 260	+ 326	+ 259	+ 356	
17	+ 357	+ 447	+ 738	+ 494	+ 619	+ 276	+ 283	+ 258	+ 310	+ 285	+ 342	+ 234	+ 387	
18	+ 411	+ 528	+ 804	+ 552	+ 670	+ 303	+ 292	+ 274	+ 305	+ 270	+ 373	+ 227	+ 417	
19	+ 317	+ 522	+ 838	+ 586	+ 693	+ 221	+ 283	+ 259	+ 300	+ 258	+ 493	+ 191	+ 413	
20	+ 240	+ 548	+ 748	+ 487	+ 722	+ 306	+ 242	+ 213	+ 300	+ 217	+ 527	+ 151	+ 392	
21	+ 288	+ 549	+ 550	+ 490	+ 772	+ 345	+ 217	+ 237	+ 280	+ 267	+ 442	+ 183	+ 385	
22	+ 319	+ 543	+ 592	+ 787	+ 810	+ 322	+ 249	+ 283	+ 275	+ 277	+ 476	+ 157	+ 424	
23	+ 336	+ 522	+ 616	+ 930	+ 777	+ 311	+ 252	+ 288	+ 265	+ 252	+ 460	+ 196	+ 434	
24	+ 263	+ 438	+ 514	+ 906	+ 691	+ 278	+ 267	+ 261	+ 255	+ 162	+ 425	+ 211	+ 389	
Means	0 ^h .-23 ^h .	+ 296	+ 368	+ 512	+ 563	+ 594	+ 287	+ 267	+ 224	+ 222	+ 208	+ 454	+ 170	+ 347
	1 ^h .-24 ^h .	+ 294	+ 368	+ 525	+ 574	+ 600	+ 284	+ 265	+ 224	+ 218	+ 207	+ 449	+ 172	+ 348
Number of Days employed.	12	20	5	9	14	11	15	14	2	11	15	18	...	

MONTHLY MEAN ELECTRICAL POTENTIAL of the ATMOSPHERE, from THOMSON'S ELECTROMETER, on NON-RAINY DAYS, at every HOUR of the DAY.

(The results depend on the Photographic Register, using only those days on which no rainfall was recorded. The scale employed is arbitrary: the sign + indicates positive potential.)

Hour, Greenwich Civil Time.	1910.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight	+ 557	+ 785	+ 853	+ 946	+ 602	+ 303	+ 290	+ 294	+ 362	+ 276	+ 847	+ 683	+ 566	
1 ^h	+ 531	+ 722	+ 780	+ 833	+ 559	+ 291	+ 283	+ 283	+ 338	+ 268	+ 786	+ 652	+ 527	
2	+ 513	+ 675	+ 692	+ 754	+ 541	+ 281	+ 260	+ 274	+ 317	+ 246	+ 731	+ 623	+ 492	
3	+ 483	+ 610	+ 653	+ 727	+ 566	+ 270	+ 252	+ 255	+ 306	+ 227	+ 718	+ 589	+ 471	
4	+ 452	+ 558	+ 648	+ 702	+ 561	+ 287	+ 257	+ 252	+ 293	+ 229	+ 727	+ 575	+ 462	
5	+ 463	+ 537	+ 673	+ 686	+ 552	+ 309	+ 282	+ 255	+ 310	+ 204	+ 734	+ 552	+ 463	
6	+ 511	+ 575	+ 683	+ 713	+ 553	+ 303	+ 287	+ 260	+ 329	+ 189	+ 760	+ 586	+ 479	
7	+ 573	+ 648	+ 694	+ 768	+ 561	+ 295	+ 276	+ 249	+ 341	+ 180	+ 773	+ 621	+ 498	
8	+ 611	+ 660	+ 728	+ 797	+ 569	+ 273	+ 263	+ 241	+ 368	+ 185	+ 795	+ 659	+ 512	
9	+ 666	+ 610	+ 819	+ 823	+ 615	+ 297	+ 281	+ 255	+ 427	+ 234	+ 850	+ 714	+ 549	
10	+ 742	+ 605	+ 888	+ 872	+ 679	+ 340	+ 350	+ 325	+ 513	+ 294	+ 981	+ 816	+ 617	
11	+ 771	+ 650	+ 948	+ 796	+ 687	+ 299	+ 366	+ 297	+ 540	+ 297	+ 975	+ 833	+ 622	
Noon	+ 778	+ 690	+ 906	+ 754	+ 587	+ 272	+ 341	+ 283	+ 487	+ 279	+ 988	+ 886	+ 604	
13 ^h	+ 767	+ 667	+ 801	+ 727	+ 532	+ 231	+ 318	+ 241	+ 446	+ 256	+ 1005	+ 872	+ 572	
14	+ 775	+ 675	+ 739	+ 695	+ 509	+ 233	+ 284	+ 229	+ 441	+ 254	+ 1037	+ 833	+ 559	
15	+ 776	+ 733	+ 733	+ 727	+ 533	+ 217	+ 275	+ 224	+ 460	+ 258	+ 1046	+ 850	+ 569	
16	+ 800	+ 835	+ 778	+ 775	+ 551	+ 255	+ 288	+ 263	+ 512	+ 284	+ 1108	+ 915	+ 614	
17	+ 816	+ 915	+ 834	+ 761	+ 545	+ 295	+ 300	+ 293	+ 535	+ 303	+ 1083	+ 936	+ 635	
18	+ 818	+ 907	+ 878	+ 803	+ 537	+ 333	+ 312	+ 299	+ 527	+ 309	+ 1015	+ 950	+ 641	
19	+ 836	+ 968	+ 890	+ 946	+ 581	+ 367	+ 333	+ 322	+ 509	+ 310	+ 948	+ 945	+ 663	
20	+ 842	+ 952	+ 869	+ 970	+ 554	+ 366	+ 332	+ 355	+ 488	+ 287	+ 934	+ 914	+ 655	
21	+ 818	+ 988	+ 876	+ 932	+ 583	+ 351	+ 340	+ 369	+ 474	+ 292	+ 920	+ 909	+ 654	
22	+ 813	+ 1035	+ 895	+ 971	+ 652	+ 361	+ 344	+ 354	+ 440	+ 279	+ 941	+ 884	+ 664	
23	+ 764	+ 987	+ 884	+ 951	+ 630	+ 363	+ 336	+ 318	+ 417	+ 264	+ 963	+ 862	+ 645	
24	+ 722	+ 880	+ 846	+ 852	+ 596	+ 347	+ 295	+ 272	+ 378	+ 259	+ 951	+ 806	+ 600	
Means	0 ^h .-23 ^h .	+ 687	+ 749	+ 798	+ 810	+ 577	+ 300	+ 302	+ 283	+ 424	+ 258	+ 903	+ 777	+ 572
	1 ^h .-24 ^h .	+ 693	+ 753	+ 797	+ 806	+ 576	+ 301	+ 302	+ 282	+ 425	+ 258	+ 907	+ 783	+ 574
Number of Days employed.	16	4	20	11	10	15	11	13	22	14	12	8	...	



ROYAL OBSERVATORY, GREENWICH.

OBSERVATIONS

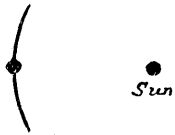
OF

PARHELIA, PARASELENÆ,

AND

LUMINOUS METEORS.

1910.

OBSERVATIONS OF PARHELIA AND PARASELENÆ MADE AT THE ROYAL OBSERVATORY, GREENWICH,
IN THE YEAR 1910.

THE PARHELION OF 1910 MARCH 6.

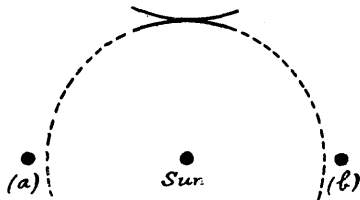
h m

8 40. Partial solar halo, and parhelion to left of sun, observed.

8 45. The halo has now disappeared.

8 55. The parhelion is now obscured by fracto-cumulus cloud.

W. H. TIMBURY.



THE PARHELIA OF 1910 APRIL 4.

h m

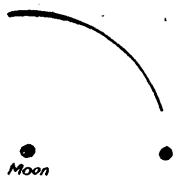
9 0. A small arc of the 22° halo with a brightly coloured inverted arch observed directly above the sun.

9 3. The dotted portion of the ordinary halo is now visible, together with a faint mock sun (a), a little outside the halo.

9 10. Another mock sun (b), faintly coloured, appears.

9 15. The phenomena have now disappeared.

A. E. LOOMES.



THE PARASELENE OF 1910 MAY 23.

Appearance of partial lunar halo and paraselene between $21^{\text{h}} 30^{\text{m}}$
and 22^{h} .

A. E. LOOMES.

THE PARHELIA OF 1910 AUGUST 12.

- h m
 16 40. Upper portion of ordinary 22° halo observed.
 16 56. The halo shows bright prismatic colouring, and a parhelion has now appeared to the left of the sun, together with an inverted arc 46° directly above the sun. The parhelion and inverted arc are both brightly coloured.
 17 0. The phenomena have now disappeared.

D. J. R. EDNEY.



- 18 0. Upper portion of ordinary halo observed.
 18 40. A brightly coloured parhelion to the right of the sun observed, but no halo visible.

A. E. LOOMES.

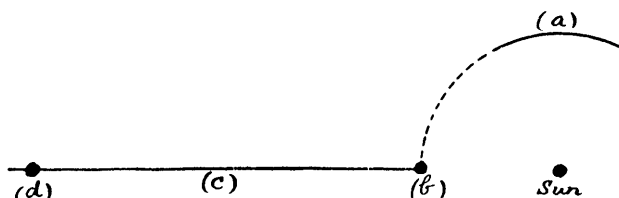


THE PARHELIA OF 1910 SEPTEMBER 10.

- h m
 12 0. A faintly coloured partial halo (a) of 22° radius is observed.
 12 10. A bright parhelion (b) appears to the left of the sun.
 12 20. The partial halo (a) has now disappeared, but the parhelion (b) is very brightly coloured, and an arc of a circle (c) passing through (b) and parallel to the horizon is visible, with a white parhelion (d) about 90° from the sun.
 12 25. The phenomena have now faded.

D. J. R. EDNEY.

A. E. LOOMES.

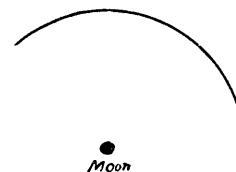


THE PARASELENE OF 1910 NOVEMBER 16.

Appearance of partial lunar halo of 22° radius and paraselene to right of moon at $0^h 15^m$.

E. KIRBY.

E. L. RICHARDSON.



Month and Day, 1910.	Greenwich Civil Time.	Observer.	Brightness of Meteor in Star Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Path of Meteor in the Sky.
	h m s				s		°	° ° ° ° °
August 10	22. 9. 32	L	1	Yellow	0.5	Bright streak	24	318 + 13 to 332 - 7
"	22. 23. 17	T	1	Yellow	0.5	Slight	3	53 + 12 to 51 + 10
"	22. 30. 1	T & L	1	Yellow	1.0	Bright streak	25	323 + 3 to 308 - 18
"	22. 33. 6	T	2	White	0.3	None	13	323 + 65 to 353 + 64
"	22. 38. 6	L	> 1	White	0.5	Slight	21	326 + 4 to 306 - 3
"	22. 48. 27	T & L	> 1	Yellow	1.0	Bright streak	30	317 + 30 to 299 + 5
"	23. 1. 52	L	2	White	0.5	None	11	8 + 65 to 342 + 65
"	23. 15. 45	T & L	> 1	Yellow	1.0	Bright streak	29	17 + 30. to 0 + 4
August 11	0. 0. 6	L	2	White	0.3	None	7	38 + 48 to 32 + 43
"	22. 19. 21	T & L	2	White	0.3	Faint	13	8 + 56 to 345 + 54
"	22. 20. 7	L	> 1	Yellow	1.0	Bright : 2 secs.	29	0 + 55 to 315 + 46
"	22. 30. 52	T & L	> 1	Yellow	1.0	Bright : 1 sec.	37	30 + 71 to 237 + 72
"	22. 34. 54	T	1	Yellow	0.5	Slight	10	8 + 44 to 354 + 47
"	22. 43. 30	L	2	White	0.3	Slight	29	0 + 55 to 315 + 46
"	22. 56. 49	T	2	Yellow	2.0	Slight	37	353 + 30 to 30 + 56
"	23. 2. 15	L	1	Yellow	0.5	Slight	12	8 + 30 to 357 + 23
"	23. 7. 39	T & L	2	White	0.5	Slight	17	3 + 33 to 345 + 29
"	23. 12. 27	T & L	2	White	0.3	None	16	8 + 33 to 353 + 24
"	23. 16. 29	T	2	White	0.4	None	14	11 + 63 to 341 + 62
"	23. 25. 45	L	1	Yellow	1.0	Slight	22	359 + 32 to 341 + 17
August 12	22. 22. 29	L	1	Yellow	1.0	Slight	22	353 + 17 to 336 + 2
"	22. 27. 21	L	2	White	0.5	Slight	41	336 + 48 to 282 + 35
"	22. 29. 6	T	2	White	0.5	Slight	11	21 + 44 to 9 + 39
"	22. 32. 9	T	1	Yellow	0.5	Slight	8	8 + 45 to 357 + 44
"	22. 32. 49	T & L	> 1	Yellow	1.0	Bright : 2 secs.	30	17 + 53 to 353 + 29
"	22. 34. 4	E	> 1	White	0.5	Bright : 3 secs.	12	326 + 11 to 315 + 7
"	22. 42. 56	E & T	2	Yellow	0.5	Faint	19	357 + 27 to 341 + 17
"	22. 48. 13	T	2	White	0.5	Slight	18	12 + 53 to 9 + 35
"	22. 49. 30	E	1	Bluish-white	0.5	Bright	15	347 + 15 to 338 + 4
"	23. 10. 6	T & L	> 1	Yellow	1.0	Bright : 2 secs.	23	0 + 35 to 339 + 22
"	23. 15. 18	T & L	> 1	Yellow	1.0	Bright : 1 sec.	20	351 + 10 to 341 - 7
"	23. 35. 14	L	1	Yellow	0.5	Slight	6	41 + 46 to 39 + 40
"	23. 47. 1	T & L	2	White	0.3	Slight	8	50 + 47 to 53 + 40
August 13	0. 30. 11	L	2	White	0.5	Slight	8	42 + 59 to 27 + 61
"	0. 50. 33	L	2	White	0.3	None	3	51 + 48 to 53 + 45
"	0. 53. 59	T	1	White	0.5	Slight	19	38 + 67 to 342 + 71
"	0. 56. 11	L	2	White	0.3	Slight	6	54 + 45 to 59 + 40
"	1. 49. 54	L	1	White	0.5	None	10	51 + 40 to 53 + 30
"	2. 2. 31	L	3	Bluish-white	0.5	None	14	38 + 30 to 35 + 17
"	2. 5. 44	T	1	White	0.5	Slight	7	147 + 65 to 135 + 70
"	2. 15. 20	L	2	White	0.3	Slight	9	69 + 55 to 84 + 54
"	2. 17. 45	T	2	White	0.3	None	9	341 + 27 to 344 + 18
"	2. 20. 49	T	1	White	0.5	Slight	34	330 + 35 to 300 + 15
"	2. 23. 49	L	1	Yellow	0.5	Slight	11	77 + 48 to 89 + 42
"	2. 26. 11	T	> 1	Yellow	1.0	Bright : 2 secs.	28	6 + 34 to 342 + 17
"	2. 30. 40	T	1	White	1.0	Slight	22	359 - 4 to 347 - 22
"	2. 34. 48	T	2	White	0.5	None	12	345 + 27 to 339 + 17
"	2. 37. 27	L	1	Yellow	0.5	Slight	10	81 + 29 to 86 + 20
"	2. 40. 17	T	2	Yellow	0.3	None	23	11 + 4 to 9 - 18
"	2. 43. 55	T	1	Yellow	0.5	None	12	356 + 5 to 353 - 7
"	2. 48. 47	L	2	Bluish-white	0.3	None	5	47 + 56 to 53 + 53
"	2. 52. 31	L	1	Bluish-white	0.5	None	16	45 + 65 to 24 + 80

The time is expressed in civil reckoning, commencing at midnight and counting from 0^h to 24^h.

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