

RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1901:

UNDER THE DIRECTION OF

W. H. M. CHRISTIE, C.B., M.A., F.R.S.,
ASTRONOMER ROYAL.

PUBLISHED BY ORDER OF THE BOARD OF ADMIRALTY, IN OBEDIENCE TO HIS MAJESTY'S COMMAND.



EDINBURGH:
PRINTED FOR HIS MAJESTY'S STATIONERY OFFICE,
By NEILL & Co., LIMITED, BELLEVUE.

—
1903.

DARLINGTON
PUBLIC LIBRARY

C 95°

R 826³ late

INDEX.

DARLINGTON
PUBLIC LIBRARY

INTRODUCTION.

	PAGE
PERSONAL ESTABLISHMENT AND ARRANGEMENTS	<i>iii</i>
GENERAL DESCRIPTION OF THE BUILDINGS AND INSTRUMENTS	<i>iii</i>
<i>The Magnetical and Meteorological Observatory</i>	<i>iii</i>
<i>Positions of the Instruments</i>	<i>iii to vi</i>
<i>The New Observatory Building on the South Ground, and the New Altazimuth Pavilion</i>	<i>vi</i>
<i>The Magnetic Pavilion in Greenwich Park</i>	<i>vi</i>
SUBJECTS OF OBSERVATION	<i>vii</i>
MAGNETIC INSTRUMENTS.	
DECLINATION MAGNET FOR ABSOLUTE DETERMINATIONS	<i>vii</i>
<i>Declinometer in the Magnetic Pavilion : Theodolite for its Observation</i>	<i>vii and viii</i>
<i>Collimation Error of the Magnet Collimator : Torsion Effect of the Suspending Thread</i>	<i>viii and ix</i>
<i>Determination of the Reading of the Azimuthal Circle of the Theodolite corresponding to the Astronomical Meridian</i>	<i>ix</i>
<i>Method of Making and Reducing Observations for Magnetic Declination</i>	<i>ix</i>
LOWER DECLINATION MAGNET	<i>ix</i>
<i>Its Suspension : Double Box : and Copper Damper</i>	<i>ix and x</i>
<i>General Principle of Photographic Registration</i>	<i>x</i>
<i>Arrangements for recording the Movements of the Lower Declination Magnet</i>	<i>xi</i>
<i>Scale for Measurement of Ordinates of the Photographic Curve</i>	<i>xii</i>
HORIZONTAL FORCE MAGNET	<i>xiii</i>
<i>Magnet Carrier : Suspension Skein : Suspension Pulleys</i>	<i>xiii</i>
<i>Plane Mirror, Telescope, and Scale for Eye-observation</i>	<i>xiv</i>
<i>Adjustment of the Magnet</i>	<i>xiv and xv</i>
<i>Determination of the Value of the Scale</i>	<i>xvi</i>
<i>Eye-observations : Photographic Record</i>	<i>xvii</i>
<i>Scale for Measurement of Ordinates of the Photographic Curve</i>	<i>xvii and xviii</i>
<i>Temperature Coefficient</i>	<i>xviii</i>
VERTICAL FORCE MAGNET	<i>xix</i>
<i>Supporting Frame, Carrier, and Knife-edge</i>	<i>xix</i>
<i>Plane Mirror, Telescope, and Scale for Eye-observation</i>	<i>xix</i>
<i>Time of Vibration in the Vertical and Horizontal Planes</i>	<i>xx</i>
<i>Determination of the Value of the Scale</i>	<i>xx and xxi</i>
<i>Eye-observations : Photographic Record</i>	<i>xxi</i>
<i>Scale for Measurement of Ordinates of the Photographic Curve</i>	<i>xxi</i>
<i>Temperature Coefficient</i>	<i>xxii</i>

I N D E X.

INTRODUCTION— <i>continued.</i>	PAGE
DIP INSTRUMENT	xxii
<i>Description of the Instrument</i>	xxii and xxiii
<i>Method of making Observations of Dip</i>	xxiii
DEFLEXION INSTRUMENT	xxiv
<i>Description of the Unifilar Instrument, Gibson No. 3</i>	xxiv
<i>Method of reducing the Observations</i>	xxiv to xxvi
EARTH CURRENT APPARATUS	xxvi
<i>Earth Connexions: Wire Circuits</i>	xxvii
<i>Arrangements for Photographic Registration</i>	xxvii
<i>Abnormal Disturbances in the Earth Current Registers</i>	xxviii
MAGNETIC REDUCTIONS	xxviii
<i>Treatment of the Photographic Curves</i>	xxix
<i>Temperature of the Horizontal and Vertical Force Magnets</i>	xxix
<i>Results in terms of Gauss's Absolute Unit</i>	xxx
<i>Harmonic Analysis of the Diurnal Inequalities of Magnetic Declination, Horizontal Force, and Vertical Force</i>	xxxi to xxxiii
<i>Magnetic Diurnal Inequalities for quiet Days in each Month</i>	xxxiii
<i>Magnetic Disturbances and Earth Currents</i>	xxxiv
<i>Scale Values of the different Magnetic Elements, and Comparative Values for different Absolute Units</i>	xxxv and xxxvi
<i>Notes referring to the Plates</i>	xxxvi
METEOROLOGICAL INSTRUMENTS.	
STANDARD BAROMETER	xxxvii
<i>Its Position: Diameter of Tube: Correction for Capillarity</i>	xxxvii
<i>Correction for Index Error: Comparison with Kew Standard</i>	xxxvii
<i>Height above Sea Level: Hours of Reading</i>	xxxviii
PHOTOGRAPHIC BAROMETER	xxxviii
<i>Arrangements for Photographic Registration</i>	xxxviii
<i>Determination of the Scale</i>	xxxviii
DRY AND WET BULB THERMOMETERS	xxxix
<i>Revolving Frame, carrying ordinary Dry and Wet Bulb Thermometers</i>	xxxix
<i>Removal of the Thermometer Stand to the Magnetic Pavilion Enclosure</i>	xxxix
<i>Standard Thermometer</i>	xcix
<i>Corrections for Index Error to Thermometers on Stand</i>	xl
<i>Thermometers in a Stevenson Screen in the Magnet Ground, and on roof of Magnet House</i>	xl and xli
<i>Stevenson Screen in the Magnetic Pavilion Enclosure</i>	xli
PHOTOGRAPHIC DRY AND WET BULB THERMOMETERS	xli to xlvi
RADIATION THERMOMETERS	xlvi

I N D E X.

INTRODUCTION—concluded.	PAGE
EARTH THERMOMETERS	<i>xliii and xliv</i>
OSLER'S ANEMOMETER	<i>xliv</i>
<i>Method of registering the Direction and Pressure of the Wind</i>	<i>xliv and xv</i>
<i>Its Rain-gauge</i>	<i>xlv</i>
<i>Special Arrangement for enlarging the Time-scale</i>	<i>xlii</i>
ROBINSON'S ANEMOMETER	<i>xlii</i>
RAIN-GAUGES	<i>xlvii</i>
ELECTROMETER	<i>xlviii</i>
<i>Instrument employed: General Description</i>	<i>xlviii</i>
<i>Method of collecting the Electricity of the Atmosphere</i>	<i>xlviii</i>
<i>System of Photographic Registration</i>	<i>xlix</i>
SUNSHINE RECORDER	<i>xlix</i>
OZONOMETER	<i>l</i>
METEOROLOGICAL REDUCTIONS	<i>li</i>
<i>System of Reduction</i>	<i>li</i>
<i>Deduction of the Temperature of the Dew-point, and of the Degree of Humidity</i>	<i>lii</i>
<i>Average Daily Temperature</i>	<i>liii</i>
<i>Rainfall: Clouds and Weather: Electricity</i>	<i>liv to lv</i>
<i>Monthly Meteorological Averages</i>	<i>lv</i>
<i>Changes of the Direction of the Wind: Electric Potential of the Atmosphere</i>	<i>lvii</i>
<i>Observations of Luminous Meteors</i>	<i>lvii</i>
RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS IN TABULAR ARRANGEMENT:—	
RESULTS OF MAGNETICAL OBSERVATIONS	(i)
TABLE I.—Mean Magnetic Declination West for each Civil Day	(ii)
TABLE II.—Monthly Mean Diurnal Inequality of Magnetic Declination West	(ii)
TABLE III.—Mean Horizontal Magnetic Force (diminished by a Constant) for each Civil Day	(iii)
TABLE IV.—Mean Temperature for each Civil Day within the box inclosing the Horizontal Force Magnet	(iv)
TABLE V.—Monthly Mean Diurnal Inequality of Horizontal Magnetic Force	(v)
TABLE VI.—Monthly Mean Temperature at each Hour of the Day within the box inclosing the Horizontal Force Magnet	(v)

I N D E X.

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS— <i>continued.</i>	PAGE
TABLE VII.—Mean Vertical Magnetic Force (diminished by a Constant) for each Civil Day	(vi)
TABLE VIII.—Mean Temperature for each Civil Day within the box inclosing the Vertical Force Magnet	(vii)
TABLE IX.—Monthly Mean Diurnal Inequality of Vertical Magnetic Force	(viii)
TABLE X.—Monthly Mean Temperature at each Hour of the Day within the box inclosing the Vertical Force Magnet	(viii)
TABLE XI.—Mean Magnetic Declination, Horizontal Force, and Vertical Force, in each Month	(ix)
TABLE XII.—Mean Diurnal Inequalities of Magnetic Declination, Horizontal Force, and Vertical Force, for the year	(x)
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	(xi)
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	(xi)
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	(xii)
TABLE XVI.—Values of the Coefficients and Constant Angles in the Periodical Expressions— $V_t = m + c_1 \sin (t + \alpha) + c_2 \sin (2t + \beta) + \&c.$ $V_{t'} = m + c_1 \sin (t' + \alpha') + c_2 \sin (2t' + \beta') + \&c.$ for the Magnetic Diurnal Inequalities	(xiii)
TABLE XVII.—Results of Observations of Magnetic Dip	(xiv)
TABLE XVIII.—Monthly and Yearly Means of Magnetic Dip	(xv)
TABLE XIX.—Determinations of the Absolute Value of Horizontal Magnetic Force	(xvi)
MAGNETIC DIURNAL INEQUALITIES FOR THE MEAN OF FIVE SELECTED QUIET DAYS IN EACH MONTH	(xviii)
TABLE XX.—Monthly Mean Diurnal Inequality of Magnetic Declination West	(xviii)
TABLE XXI.—Monthly Mean Diurnal Inequality of Horizontal Magnetic Force	(xix)
TABLE XXII.—Monthly Mean Diurnal Inequality of Vertical Magnetic Force	(xx)

INDEX

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS—<i>continued</i>.	PAGE
MAGNETIC DISTURBANCES AND EARTH CURRENTS	(xxi)
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	(xxii)
Explanation of the Plates of Magnetic Disturbances	(xxix)
PLATES I. and II., photo-lithographed from tracings of the Photographic Registers of Magnetic Disturbances.	
PLATE III., 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	(xxxii)
Daily Results of the Meteorological Observations	(xxxiii)
Highest and Lowest Readings of the Barometer	(lvi)
Absolute Maxima and Minima Readings of the Barometer for each Month	(lviii)
Monthly Results of Meteorological Elements	(lix)
Monthly Mean Reading of the Barometer at every Hour of the Day	(lx)
Monthly Mean Temperature of the Air at every Hour of the Day	(lx)
Monthly Mean Temperature of Evaporation at every Hour of the Day	(lxii)
Monthly Mean Temperature of the Dew-Point at every Hour of the Day	(lxii)
Monthly Mean Degree of Humidity at every Hour of the Day	(lxii)
Total Amount of Sunshine registered in each Hour of the Day in each Month	(lxii)
Readings of Dry-Bulb Thermometers placed in a Stevenson's Screen in the Observatory Grounds, and of those mounted in a louvre-boarded shed on the roof of the Magnet House	(lxiii)
Readings of the Wet-Bulb Thermometer placed in a Stevenson's Screen	(lxxv)
Readings of Thermometers placed in a Stevenson's Screen in the Magnetic Pavilion Enclosure .	(lxxviii)
Earth Thermometers :—	
(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	(xc)
(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	(xc)
(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	(xcii)
(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	(xcii)
(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	(xciii)
(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	(xciv)

I N D E X.

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS— <i>concluded.</i>	PAGE
Abstract of the Changes of the Direction of the Wind, as derived from the Records of Osler's Anemometer	(xcv)
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	(ciii)
Mean Electrical Potential of the Atmosphere, from Thomson's Electrometer, for each Civil Day	(civ)
Monthly Mean Electrical Potential of the Atmosphere, from Thomson's Electrometer, at every Hour of the Day	(cv)
Monthly Mean Electrical Potential of the Atmosphere, from Thomson's Electrometer, on Rainy Days, at every Hour of the Day	(cvii)
Monthly Mean Electrical Potential of the Atmosphere, from Thomson's Electrometer, on Non-Rainy Days, at every Hour of the Day	(cvii)
Amount of Rain collected in each Month by the different Rain-gauges	(cviii)
OBSERVATIONS OF LUMINOUS METEORS	(cix)

ROYAL OBSERVATORY, GREENWICH.

RESULTS



MAGNETICAL AND METEOROLOGICAL OBSERVATIONS.

1901.

THE UNIVERSITY OF TORONTO LIBRARIES
UNIVERSITY OF TORONTO LIBRARY

LIBRARY USE

THE UNIVERSITY OF TORONTO LIBRARIES
UNIVERSITY OF TORONTO LIBRARY

LIBRARY USE

UNIVERSITY OF TORONTO LIBRARIES

THE UNIVERSITY OF TORONTO LIBRARIES
UNIVERSITY OF TORONTO LIBRARY

which will be found in the following pages. The observations are made by the Royal Observatory, Greenwich, and the results are published in the "Quarterly Journal of the Royal Observatory," which is issued quarterly. The observations are made by the Royal Observatory, Greenwich, and the results are published in the "Quarterly Journal of the Royal Observatory," which is issued quarterly.

GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1901.

INTRODUCTION.

§ 1. Personal Establishment and Arrangements.

During the year 1901 the personal establishment in the Magnetical and Meteorological Department of the Royal Observatory consisted of William Carpenter Nash, Superintendent, aided by one Established Computer, David J. R. Edney, and four Computers. The Computers employed at different times during the year were : — Thomas Henry Clarke, Charles William Ralph, Albert Edward Showell, Wilfred C. Parkinson, William James Perry, and William Wood Burkett.

Mr. Nash controls and superintends the whole of the work of the Department. The routine magnetal 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 Magnetical and Meteorological Observatory was erected in the year 1838. Its northern face is distant about 170 feet south-south-east from the nearest point of the South-East Dome and about 20 feet south of the new Altazimuth Pavilion. On its east stands the New Library (now used as a store-room), erected at the end of the year 1881, in the construction of which non-magnetic bricks were used, and every care was taken to exclude iron. The Magnetical and Meteorological Observatory is based on concrete and built of wood, united for the most part by pegs of bamboo; no iron was intentionally admitted in its construction, or in subsequent alterations. Its form is that of a cross, the arms of the cross being nearly in the direction of the cardinal magnetic points as they were in 1838. The northern arm is longer than the others, and

is separated from them by a partition, and used as a Computing Room ; the stove which warms this room, and its flue, are of copper. The remaining portion, consisting of the eastern, southern, and western arms, is known as the Upper Magnet Room. The upper declination magnet and its theodolite, for determination of absolute declination, were formerly placed in the southern arm, an opening in the roof allowing circum-polar stars to be observed by the theodolite, for determination of its reading for the astronomical meridian. Both the magnet and its theodolite were supported on piers built from the ground. In the eastern arm is placed the Thomson electrometer for photographic record of the variations of atmospheric electricity ; its water cistern rests on four glass insulators supported by a platform fixed to the western side of the southern arm, near the ceiling. The Standard barometer is suspended near the junction of the southern and western arms. The sidereal clock, Grimalde and Johnson, is fixed at the junction of the eastern and southern arms, and there is in addition a mean solar chronometer, McCabe No. 649, for general use.

Until the year 1863 the horizontal and vertical force magnets were also located in the Upper Magnet Room, the declination magnet being up to that time employed for photographic record of the variations of declination, as well as for absolute measure of the element. But experience having shown that the horizontal and vertical force magnets were exposed in the upper room to large variations of temperature, a room known as the Magnet Basement (in which the variations of temperature are very much smaller) was excavated in the year 1864 below the Upper Magnet Room, and the horizontal and vertical force magnets, as well as a new declination magnet for photographic record of declination, were mounted therein. The Magnet Basement is of the same dimensions as the Upper Magnet Room. The lower declination magnet and the horizontal force and vertical force magnets, as now located in the Basement, are used entirely for record of the variations of the respective magnetic elements. The declination magnet is suspended in the southern arm, immediately beneath the position formerly occupied by the upper declination magnet ; the horizontal and vertical force magnets are placed in the eastern and western arms respectively, in positions nearly underneath those which they occupied when in the Upper Magnet Room. All are mounted on or suspended from supports carried by piers built from the ground. A photographic barometer is fixed to the northern wall of the Basement, and an apparatus for photographic registration of earth currents is placed near the southern wall of the eastern arm. A mean solar clock of peculiar construction for interruption of the photographic traces at each hour is fixed on the north side of the central pier. Another mean solar clock for general use is attached to the western wall of the southern arm. For better ascertaining the variations of temperature of the Basement, a Richard metallic thermograph was added

in February 1886. It is placed on the pier carrying the horizontal force magnet, and gives a continuous register of temperature on a scale of 5° to 1 inch, the scale for time being 24 hours to $5\frac{1}{2}$ inches. On the northern wall, near the photographic barometer, is fixed the Sidereal Standard clock of the Astronomical Observatory, Dent 1906, communicating with the chronograph and with clocks of the Astronomical Department by means of underground wires. This clock is placed in the Magnet Basement, because of its nearly uniform temperature.

The Basement is warmed, when necessary, by a gas stove (of copper), and ventilated by means of a large copper tube nearly two feet in diameter, which receives the flues from the stove and all gas-lights, and passes through the Upper Magnet Room to a revolving cowl above the roof. Another gas stove, provided with the object of maintaining a higher temperature during the winter, and so rendering the Basement temperature more uniform throughout the year, is placed near the middle of the western wall of the western arm. Each of the arms of the Basement has a well window facing the south, but these wells are usually closely stopped up with bags packed with straw or jute. In January 1886 a line of 9-inch pipes was laid underground from the Basement southward to a distance of about 155 feet, at which point there is an inlet from the atmosphere, for the purpose of ventilating the Basement by air which has acquired the temperature of the soil at a depth of several feet below the surface, and of thus obtaining greater uniformity of temperature. The depth of the line of pipes below the surface varies from 5 feet at the inlet in the south ground to 11 feet 6 inches at the entrance to the Basement.

A platform erected above the roof of the Magnet House is used for the observation of meteors. A rain gauge is placed on a table on this platform, and there are also thermometers (placed in a louvre-boarded shed or screen, with free circulation of air) for observation of the temperature of the air in an exposed situation at a height of 20 feet above the ground.

An apparatus for naphthalizing the gas used for the photographic registration is mounted in a small detached zinc-built room adjacent to the Computing Room on its western side, but it has not been in use for several years.

To the south of the Magnet House, in what is known as the Magnet Ground, is an open shed, on the west side of the earth thermometers, consisting principally of a roof supported on four posts, under which is placed the photographic dry-bulb and wet-bulb thermometer apparatus. On the roof of this shed there is fixed an ozone box and a rain gauge. About 20 feet south of the southern arm of the Magnet House

are placed the earth thermometers, the upper portions of which, projecting above the ground, are protected by a small wooden hut, and at about the same distance south-east of the southern arm of the Magnet House is situated a Stevenson screen containing dry-bulb, wet-bulb, and maximum and minimum thermometers, and a few feet further east there are two rain gauges.

The Magnet Ground is bounded on its western side by a range of seven rooms, known as the Magnetic Offices.

In the South Ground stands the new Observatory Building erected in the years 1891 to 1898, and on the north side of the Magnetical Observatory stands the new Altazimuth Pavilion erected in 1894 to 1895. In both of these buildings considerable masses of iron have been introduced.

The Magnetic Pavilion, in an enclosure in Greenwich Park, at a distance of about 350 yards from the Observatory, on the East side, was completed at the end of 1898 September, and the instruments for absolute determinations of magnetic declination, dip and horizontal force are installed there. The greatest care was taken to exclude all iron in building the Magnetic Pavilion, and the site was selected so that there should be no suspicion of magnetic disturbance from iron in the neighbourhood. The revolving stand carrying the thermometers used for ordinary eye observations, the thermometers for solar and terrestrial radiation, and the standard rain gauge, were moved to an open position in the Magnetic Pavilion enclosure at the beginning of 1899, and a Stevenson screen was added on 1900 March 31.

The Anemometers are fixed above the roof of the Octagon Room (the ancient part of the Observatory) :—Osler's, for continuous record of direction and pressure of wind, and amount of rain above the north-western turret, and Robinson's for continuous record of velocity, above the small wooden building on the southern side of the roof of the Octagon Room. Since 1896 February 6 the sunshine instrument has also been mounted on the building which carries the Robinson Anemometer.

Regular observation of the principal magnetical and meteorological elements was commenced in the autumn of the year 1840, and has been continued, with some additions to the subjects of observation, to the present time. Until the end of the year 1847 observations were in general made every two hours, but at the beginning of the year 1848 these were superseded by the introduction of the method of photographic registration, by which means a continuous record of the various elements is obtained.

For information on many particulars concerning the history of the Magnetical and Meteorological Observatory, especially in regard to alterations not recited in this volume, which have been made from time to time, the reader is referred to the Introductions to the Magnetical and Meteorological Observations for preceding years, and to the Descriptions of the Buildings and Grounds, with accompanying Plans, given in the volumes of Astronomical Observations for the years 1845 and 1862.

§ 3. *Subjects of Observation in the year 1901.*

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, and of the earth currents indicated in two distinct lines of wire; 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, and occasional phenomena.

From the beginning of the year 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. In previous years the time used throughout the magnetic section was Greenwich astronomical time, reckoning from noon to noon; and generally, in the meteorological section, Greenwich civil time, reckoning from midnight to midnight.

§ 4. *Magnetic Instruments.*

DECLINATION MAGNET FOR ABSOLUTE DETERMINATIONS.—For determination of magnetic declination in the Magnetic Pavilion, the hollow cylindrical magnet, Elliot No. 75, has been mounted in conjunction with the theodolite formerly used with the upper declination magnet in the Observatory, the aperture of the viewing telescope being reduced to that of the magnet collimator (0·3 inch), and a low-power eye-piece being provided. Since 1899 January 1 regular observations of declination have been made in the Magnetic Pavilion, alternating with determinations

with the upper declination magnet in the Magnet House, to determine the correction required to the results found at the latter site, representing the effect of the iron in the Observatory Buildings. This correction was found from observations made in 1899 to be $-10'8$. The upper declination magnet, formerly employed until the end of the year 1898 for the determination of absolute declination, was finally dismounted at the end of the year 1900.

The theodolite, by which the position of the declination magnet is observed, is by Troughton and Simms. It is planted about 2 feet south of the magnet. The radius of its horizontal circle is 8·3 inches, and the circle is divided to 5', and read, by three verniers, to 5". The theodolite has three foot-screws, which rest in brass channels let into the capping stone cemented to the concrete pier which rises from the ground. The length of the telescope is 21 inches, and the aperture of its object-glass 2 inches : it is carried by a horizontal transit-axis $10\frac{1}{2}$ inches long, supported on Y's carried by the central vertical axis of the theodolite. The eye-piece has one fixed horizontal wire and one vertical wire moved by a micrometer-screw, the field of view in the observation of stars being illuminated through the pivot of the transit-axis on that side of the telescope which carries the micrometer-head. The value of one division of the level is $1''15$. By opening the North door of the Magnetic Pavilion observation of circumpolar stars can be made for determination of the reading of the horizontal circle of the theodolite corresponding to the astronomical meridian.

The inequality of the pivots of the axis of the theodolite telescope was determined on 1898 November 25 and 1898 December 5, and the correction was found to be $-6^{\text{div}}.0$, which is equivalent to $-6''.9$.

The value in arc of one revolution of the telescope-micrometer is $1'.34''2$.

The adopted reading for the line of collimation of the theodolite telescope throughout the year was 100^r280 .

No correction was found for effect of the plane glass in front of the box of the declination magnet.

The error of collimation of the magnet collimator is found by observing the position of the magnet, first with the collimator in the usual position with its scale direct, then with the collimator with its scale reversed, repeating the observations several times. This value was found from twelve determinations during the year to be $3'.51''2$.

The effect of torsion of the silk suspending thread is eliminated by turning the torsion-circle until the brass torsion weight inserted in place of the magnet, rests in the plane of the magnetic meridian. The weight is inserted usually about once a week, and whenever the adjustment is found not to have been sufficiently close, the observed positions of the magnet are corrected for displacement of the magnet from the meridian by the torsion of the thread. Such correction is determined experimentally, with the magnet in position, by changing the reading of the torsion-circle by a definite amount, usually 90° , thus giving the suspension thread that amount of azimuthal twist, and observing, with the theodolite, the change in the position of the magnet thereby produced, from which is derived the ratio of the couple due to torsion of the thread to the couple due to the earth's horizontal magnetic force. This ratio was found from the mean of seven determinations to be $\frac{1}{975}$.

The reading of the azimuthal circle of the theodolite corresponding to the astronomical meridian is determined about twice in each month by observations of Polaris.

In regard to the manner of making observations with the declination magnet:—The observer, on looking into the theodolite telescope, sees the image of the scale of the magnet collimator vibrating alternately right and left. At the pre-arranged time of observation, by means of the tangent screw, the vertical wire carried by the telescope-micrometer is made to bisect the central division of the scale: repeating the operation if found necessary. The verniers of the theodolite-circle are then read. The mean circle-reading being adopted, and corrected for collimation of the magnet, the concluded circle reading corresponding to the position of the magnet is found. The difference between this reading and the adopted reading of the circle for the north astronomical meridian gives, when (as is usually the case) no correction for torsion of the skein is necessary, the observed value of absolute declination, afterwards used for determining the value of the photographed base line on the photographic register of the lower declination magnet. The times of observation of the declination magnet are usually 9^h , 12^h (noon), 15^h , and 21^h of Greenwich civil time, reckoning from midnight.

LOWER DECLINATION MAGNET.—The lower declination magnet suspended in the Magnet Basement is used simply for the purpose of obtaining photographic register of the variations of magnetic declination. It is by Troughton and Simms, and is 2 feet long, $1\frac{1}{2}$ inches broad, and $\frac{1}{4}$ inch thick.

The magnet is suspended by a skein of silk passing over two brass suspension pulleys
GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1901.

carried by a small pier built on crossed slates resting on brick piers rising from the ground. The length of free suspending skein is about 6 feet. The position of the azimuthal plane in which the brass torsion bar rests, when substituted for the magnet, is examined from time to time, and adjustment made as necessary, to keep this plane in or near the magnetic meridian.

The magnet is enclosed in a double rectangular wooden box (one box within another), covered externally and internally with gilt paper, placed upon the pier; and to destroy the small accidental vibrations to which the magnet would be otherwise liable, it is encircled by a damper consisting of a copper bar, about 1 inch square, which is bent into a long oval form, the plane of the oval being vertical; a lateral bend is made in the upper bar of the oval to avoid interference with the suspension piece of the magnet. The effect of the damper is to reduce the amplitude of the oscillation after every complete or double vibration of the magnet in the proportion of 5 : 2 nearly.

In regard to photographic arrangements, it may be convenient, before proceeding to speak of the details peculiar to each instrument, to remark that the general principle adopted for obtaining continuous photographic record is the same for all instruments. For the register of each indication a cylinder of ebonite is provided, the axis of the cylinder being placed parallel to the direction of the change of indication to be registered. If, as is usually the case, there are two indications whose movements are in the same direction, both may be registered on the same cylinder: thus, the movements in the case of magnetic declination and horizontal magnetic force, being both horizontal, can be registered on different parts of one cylinder with axis horizontal: so, also, can two different galvanic earth currents. The movements in the case of vertical magnetic force, and of the barometer, being both vertical, can similarly be registered on different parts of one cylinder having its axis vertical, as also can the indications of the dry-bulb and wet-bulb thermometers. In the electrometer, the movement being horizontal, a horizontal cylinder is provided.

The cylinder is in each case driven by chronometer or accurate clock-work to ensure uniform motion. The pivots of the horizontal cylinders turn on anti-friction wheels; the vertical cylinders rest each on a circular plate turning on anti-friction wheels, the driving mechanism being placed below. A sheet of sensitized paper being wrapped round the cylinder, and held by a slender brass clip, the cylinder thus prepared is placed in position, and connected with the clock-movement: it is then ready to receive the photographic record, the optical arrangements for producing

which will be found explained in the special description of each particular instrument. The sheets are removed from the cylinders, and fresh sheets supplied every day, usually at noon. On each sheet a reference line is also photographed, the arrangements for which will be more particularly described in each special case. All parts of the apparatus and all parts of the paths of light are protected, as found necessary, by wood or zinc casings or tubes, blackened on the inside, in order to prevent stray light from reaching the photographic paper.

In June 1882 the photographic process employed for many years was discarded, and a dry paper process introduced, the argentic-gelatino-bromide paper, as prepared by Messrs. Morgan and Kidd of Richmond (Surrey), being used with ferrous oxalate development. The greater sensitiveness of this paper permits diminution of the effective surface of the magnet mirrors, and allows also the use of smaller gas flames. In the case of the vertical force magnet the old and comparatively heavy mirror has been replaced by a small and light mirror with manifest advantage, as will be seen in the description of the vertical force magnet. The new paper acts equally well at all seasons of the year, and any loss of register on account of photographic failure is now extremely rare.

Referring now specially to the lower declination magnet, there is attached to the magnet carrier, for the purpose of obtaining photographic register of the motions of the magnet, a concave mirror of speculum metal, 5 inches in diameter (reduced by a stop, on the introduction of the new photographic paper, to an effective diameter of about 1 inch), which thus partakes in all the angular movements of the magnet. The revolving ebonite cylinder is $11\frac{1}{2}$ inches long and $14\frac{1}{4}$ inches in circumference. It is supported, in an approximately east and west position, on brass uprights carried by a metal plate, the whole being planted on a firm wooden platform, the supports of which rest on blocks driven into the ground. The platform is placed midway between the declination and horizontal force magnets, in order that the variations of magnetic declination and horizontal force may both be registered on the same cylinder, which makes one complete revolution in 26 hours.

The light used for obtaining the photographic record is that given by a flame of coal gas, charged occasionally with the vapour of coal naphtha. A vertical slit, about $0^{in}3$ long and $0^{in}01$ wide, placed close to the light, is firmly supported on the pier which carries the magnet. It stands slightly out of the straight line joining the mirror of the magnet and the registering cylinder, and its distance from the mirror is about 25 inches. The distance of the axis of the registering cylinder from the mirror is $134\cdot4$ inches. Immediately above the cylinder, and parallel to its axis, are

placed two long reflecting prisms (each 11 inches in length), extending from end to end of the cylinder, and facing opposite ways towards the mirrors carried by the declination and horizontal force magnets respectively. The front surface of each prism is convex, being a portion of a horizontal cylinder. The light of the declination lamp, after passing through the vertical slit, falls on the concave mirror, and is thence reflected as a converging beam to form an image of the slit on the convex surface of the reflecting prism, by the action of which it is reflected downwards to the paper on the cylinder as a small spot of light. The concave mirror can be so adjusted in azimuth on the magnet, that the spot shall fall, not at the centre of the cylinder, but rather towards its western side, in order that the declination trace shall not interfere with that of horizontal force, which is made to fall towards the eastern side of the cylinder. The special advantage of the arrangement here described is that the registers of both magnets are made at the same part of the circumference of the cylinder, a line joining the two spots being parallel to its axis, so that when the traces on the paper are developed, the parts of the two registers which appear in juxtaposition correspond to the same Greenwich time.

By means of a small prism, fixed near the registering cylinder, the light from another lamp is made to form a spot of light on the cylinder in a fixed position, so that, as the cylinder revolves, a reference or base line is traced out on the paper, from which, in the interpretation of the records, the ordinates are measured.

A clock of special construction, arranged by Messrs. E. Dent and Co., acting upon a small shutter placed near the declination slit, cuts off the light from the mirror two minutes before each hour, and admits it again two minutes after the hour, thus producing at each hour a visible interruption in the trace, and so ensuring accuracy as regards time scale. By means of another shutter the observer occasionally cuts off the light for a few minutes, registering the times at which it was cut off and admitted again. The visible interruptions thus made at definite times in the trace obviate any possibility of error being made by wrong numeration of the hourly breaks.

The usual hour of changing the photographic sheet is noon, but on Sundays, and occasionally on other days, this rule is not strictly followed. To obviate any uncertainty that might arise on such occasions from the interference of the two ends of a trace slightly longer than 24 hours, it has been arranged that one revolution of the cylinder should be made in 26 hours. The actual length of 24 hours on the sheet is about 13·3 inches.

The scale for measurement of ordinates of the photographic curve is thus determined.

The distance from the concave mirror carried by the magnet to the surface of the cylinder, in the actual path of the ray of light through the prism, is practically the same as the horizontal distance of the centre of the cylinder from the mirror, 134·4 inches. A movement of 1° of the mirror produces a movement of 2° in the reflected ray. From this it is found that 1° of movement of the mirror, representing a change of 1° of magnetic declination, is equal to 4·691 inches on the photographic paper. A small strip of cardboard is therefore prepared, graduated on this scale to degrees and minutes. The ordinates of the curve, as referred to the base line, being measured for the times at which absolute values of declination were determined, usually four times daily, the apparent value of the base line, as inferred from each observation, is found. The process assumes that the movements of the two declination magnets are precisely similar. The separate base line values being divided into groups, usually monthly, a mean base line value is adopted for use through each group. This adopted base line value is written upon every sheet. Then, with the cardboard scale, there is laid down, conveniently near to the photographic trace, a new base line, whose ordinate represents some whole number of degrees or other convenient quantity. Thus every sheet carries its own scale of magnetic measure. From the new base line the hourly ordinates (see page *xxix*) are measured.

HORIZONTAL FORCE MAGNET.—The horizontal force magnet, for measure of the variations of horizontal magnetic force, was made by Meyerstein of Göttingen, and like the lower declination magnet, is 2 feet long, $1\frac{1}{2}$ inches broad, and about $\frac{1}{4}$ inch thick. For support of its suspension skein, the back and sides of its brick pier rise through the eastern arm of the Magnet Basement to the Upper Magnet Room, being there covered by a slate slab, to the top of which a brass plate is attached, carrying, immediately above the magnet, two brass pulleys, with their axes in the same east and west line; and at the back of the pier, and opposite to these pulleys, two others, with their axes similarly in an east and west line: these constitute the upper suspension piece, and support the upper portions of the two branches of the suspension skein. The two lower pulleys, having their axes in the same horizontal plane, and their grooves in the same vertical plane, are attached to a small horizontal bar which forms the upper portion of the torsion-circle: it carries the verniers for reading the torsion-circle, and can be turned independently of the lower and graduated portion of the torsion-circle, below which, and in rigid connexion with it, is the magnet carrier.

The suspension skein is led under the two pulleys carried by the upper portion of the torsion-circle; its two branches then rise up and pass over the front pulleys of the upper suspension piece, thence to and over the back pulleys, thence descending to a single pulley, round which the two branches are tied: from this pulley a cord goes to

a small windlass fixed to the back of the pier. The effective length of each of the two branches of the suspension skein is about 7^{ft}. 6ⁱⁿ: The distance between the branches of the skein, where they pass over the upper pulleys, is 1ⁱⁿ.14; at the lower pulleys the distance between the branches is 0ⁱⁿ.80. The two branches are not intended to hang in one plane, but are to be so twisted that their torsion will maintain the magnet in a direction very nearly east and west magnetic, the marked end being west. In this state an increase of horizontal magnetic force draws the marked end of the magnet towards the north, whilst a diminution of horizontal force allows the marked end to recede towards the south under the influence of torsion. An oval copper bar, exactly similar to that used with the lower declination magnet, is applied also to the horizontal force magnet, for the purpose of diminishing the small accidental vibrations.

Below the magnet carrier there is attached a small plane mirror, to which is directed a small telescope for the purpose of observing by reflexion the graduations of a horizontal opal glass scale attached to the southern wall of the eastern arm of the basement. The magnet, with its plane mirror, hangs within a double rectangular box, covered externally and internally with gilt paper. The numbers of the fixed scale increase from east to west, so that when the magnet is inserted in its usual position, with its marked end towards the west, increasing readings of the scale, as seen in the telescope, denote increasing horizontal force. The normal to the scale that meets the centre of the plane mirror is situated at the division 51 of the scale nearly, the distance of the scale from the centre of the plane mirror being 90.84 inches. The angle between the normal to the scale, which coincides nearly with the normal to the axis of the magnet, and the axis of the fixed telescope, is about 38°, the plane of the mirror being therefore inclined about 19° to the axis of the magnet.

To adjust the magnet so that it shall be truly transverse to the magnetic meridian, which position is necessary in order that the indications of the instrument may apply truly to changes in the magnitude of horizontal magnetic force, without regard to changes of direction, the time of vibration of the magnet and the reading of the fixed scale are determined for different readings of the torsion-circle. In regard to the interpretation of such experiments, the following explanation may be premised.

Suppose that the magnet is suspended in its carrier with its marked end in a magnetic westerly direction, not exactly west, but in any westerly direction, and suppose that, by means of the fixed telescope, the reading of the scale is taken. The position of the axis of the magnet is thereby defined. Now let the magnet be taken

out of its carrier, and replaced with its marked end easterly. The terrestrial magnetic force will now act, as regards torsion, in the direction opposite to that in which it acted before, and the magnet will take up a different position. But by turning the torsion-circle so as to reverse the direction of the torsion produced by the oblique tension of the two branches of the suspending skein, the magnet may be made to take the same position as before, but with poles reversed, which will be proved by the reading of the scale, as seen in the fixed telescope, being the same. We thus obtain two readings of the torsion-circle corresponding to the same direction of the magnet axis, but with the marked end opposite ways, without, however, possessing any information as to whether the magnet axis is accurately transverse to the magnetic meridian, inasmuch as the same operation can be performed whether the magnet axis be transverse or not.

But there is another observation which will indicate whether the magnet axis is or is not accurately transverse. Let, in addition, the time of vibration be taken in each position of the magnet. Resolve the terrestrial magnetic forces acting on the poles of the magnet each into two parts, one transverse to the magnet, the other longitudinal. In the two positions of the magnet, marked end westerly and marked end easterly, the magnitude of the transversal force is the same, and the changes which the torsion undergoes in a vibration of given extent are the same, and if there were no other force, the time of vibration would also be the same. But there is another force, the longitudinal force, and when the marked end is northerly this tends from the centre of the magnet's length, and when it is southerly it tends towards the centre of the magnet's length; and in a vibration of given extent this force, in one case increases that due to the torsion, and in the other case diminishes it. The times of vibration will therefore be different. There is only one exception to this, which is when the magnet axis is transverse to the magnetic meridian, in which case the longitudinal force vanishes, and the times of vibration in both positions of the magnet become the same.

The criterion, then, of the position truly transverse to the meridian is this. Find the readings of the torsion-circle which, with the magnet in reversed positions, will give the same readings of the scale and the same time of vibration for the magnet. With such readings of the torsion-circle the magnet is, in either position, transverse to the meridian, and the difference of circle-readings is the difference between the position in which the terrestrial magnetism acting on the magnet twists it one way, and the position in which the same force twists it the opposite way, and is therefore double of the angle of torsion of the suspending lines for which, in either position, the force of terrestrial magnetism is neutralized by the torsion.

The suspension skein now in use was mounted on 1900 July 9.

On 1901 January 1 the following observations were made for determination of the angle of torsion:—

1901. Day.	The Marked End of the Magnet.							
	West.				East.			
	Torsion-Circle Reading.	Scale- Reading.	Difference of Scale-Readings for change of 1° of Torsion-Circle Reading.	Mean of the Times of Vibration.	Torsion-Circle Reading.	Scale- Reading.	Difference of Scale-Readings for change of 1° of Torsion-Circle Reading.	Mean of the Times of Vibration.
Jan. 1	146°	div. 47.97	div. 8.17	s 21.22	230°	div. 46.15	div. 8.08	s 20.58
	147	56.14	7.60	20.96	231	54.23	8.35	20.72
	148	63.74		20.80	232	62.58		20.96

From these observations it appeared that the times of vibration and scale-readings were sensibly the same when the torsion-circle read 147°.30', marked end west, and 231°.41', marked end east, the difference being 84°.11'. Half this difference, or 42°.5', is therefore the angle of torsion when the magnet is transverse to the meridian.

The value adopted in the reduction of the observations throughout the year was 42°.10' being a mean of the determinations made on 1900 July 11 and 1901 January 1.

The adopted reading of torsion-circle, for transverse position of the magnet, the marked end being west, was 146°.30' throughout the year.

The angle through which the magnet turns to produce a change of one division of scale-reading, and the corresponding variation of horizontal force in terms of the whole horizontal force, is thus found.

The length of 30^{div.85} of the fixed scale is exactly 12 inches, and the distance of the centre of the face of the plane mirror from the scale, 90.84 inches; consequently, the angle at the mirror subtended by one division of the scale is 14'.43".2, or for change of one division of scale-reading the magnet is turned through an angle of 7'.21".6.

The variation of horizontal force, in terms of the whole horizontal force, producing angular motion of the magnet corresponding to change of one division of scale-

reading = cotan angle of torsion \times value of one division in terms of radius. Using the numbers above given, the change of horizontal force corresponding to change of one division of scale-reading was found to be 0.002364; and this value has been used throughout the year for conversion of the observed scale-readings into parts of the whole horizontal force.

In regard to the manner of making observations with the horizontal force magnet a fine vertical wire is fixed in the field of view of the observing telescope, across which the graduations of the fixed scale, as reflected by the plane mirror carried by the magnet, are seen to pass alternately right and left as the magnet oscillates, and the scale-reading for the extreme points of vibration is easily taken. The hours of observation are usually 9^h 30^m, 12^h 30^m, 15^h 30^m, and 20^h 30^m of Greenwich civil time (reckoning from midnight).

A thermometer, the bulb of which reaches considerably below the attached scale, is so planted in a nearly upright position on the outer magnet box, that the bulb projects into the interior of the inner box containing the magnet. 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 Greenwich civil time. An index correction of $-0^{\circ}3$ has been applied to all readings.

The photographic record of the movements of the horizontal force magnet is made on the same revolving cylinder as is used for record of the motions of the lower declination magnet, and, as described for that magnet, there is also attached to the carrier of the horizontal force magnet a concave mirror, 4 inches in diameter, reduced by a stop since 1882 to an effective diameter of about 1 inch. The arrangements, as regards lamp, slit, and other parts, are precisely similar to those for the lower declination magnet already described, and may be perfectly understood by reference to that description (pages xi and xii), in which was incidentally included an explanation of some parts specially referring to register of horizontal force. The distance of the vertical slit from the concave mirror of the magnet is about 21 inches, and the distance of the axis of the registering cylinder from the concave mirror is 136.8 inches, the slit standing slightly out of the straight line joining the mirror and the registering cylinder. The same base line is used for measure of the horizontal force ordinates, and the register is similarly interrupted at each hour by the clock, and occasionally by the observer, for determination of time scale, the length of which is, of course, the same as that for declination.

The scale for measure of ordinates of the photographic curve is thus constructed. The distance from the concave mirror to the surface of the cylinder, in the actual path

of the ray of light through the prism, is (as for declination) practically the same as the horizontal distance of the centre of the cylinder from the mirror, or 136·8 inches. But, because of the reflexion at the concave mirror, the double of this measure, or 273·6 inches, is the distance that determines the extent of motion on the cylinder of the spot of light, which, in inches, for a change of 0·01 part of the whole horizontal force, will therefore be $273\cdot6 \times \tan \text{angle of torsion} \times 0\cdot01$. Taking for angle of torsion $42^\circ 10'$, the movement of the spot of light on the cylinder for a change of 0·01 of horizontal force is found to be 2·478 inches; and with this unit the cardboard scale for measure of the ordinates was prepared. The ordinates being measured for the times at which eye observations were made, combination of the measured ordinates with the observed scale-readings converted into parts of the whole horizontal force, gives an apparent value of the base line for each observation. These being divided into groups, mean base line values are adopted, written on the sheets, and new base lines laid down, from which the hourly ordinates (see page xxix) are measured, exactly in the same way as described for declination.

The indications of horizontal force are in a slight degree affected by the small changes of temperature to which the Magnet Basement is subject. 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 thereby produced. This process seems preferable to others in which was observed the effect which the magnet, when enclosed within a copper trough or box, and artificially heated by hot water or hot air to different temperatures, produced on another suspended magnet, since the result obtained includes the entire effect of temperature upon all the various parts of the mounting of the magnet, as well as on the magnet itself. Referring to previous volumes for details, it is sufficient here to state that, from a series of experiments made between January 3 and February 21 of the year 1868, on the principle mentioned, in temperatures ranging from $48^\circ 2$ to $61^\circ 5$, it appeared that when the marked end of the horizontal force magnet was to the west (its ordinary position), a change of 1° of temperature (Fahrenheit) produced an apparent change of ·000174 of the whole horizontal force, a smaller number of observations made with the marked end of the magnet east, in temperatures ranging from $49^\circ 0$ to $60^\circ 9$, indicating that a change of 1° of temperature produced an apparent change of ·000187 of horizontal force, increase of temperature in both cases being accompanied by decrease of magnetic force. It was concluded that an increase of 1° of temperature produces an apparent decrease of ·00018 of horizontal force. In the years 1885 and 1886 further observations on the same general plan were made, with the result that the decrease of horizontal force for increase of 1° of temperature was found to be somewhat greater at the higher

than at the lower temperatures. A discussion of all the observations taken in 1885 and 1886, details of which are given at the end of the Introduction for 1886, shows that the correction for reduction to temperature 32° (expressed in terms of the horizontal force) is $(t - 32) \times .0000936 + (t - 32)^2 \times .000002074$, in which t is the temperature in degrees Fahrenheit. The decrease of horizontal force for an increase of 1° of temperature would thus be .00021 at 60° , .00023 at 65° , and .00025 at 70° .

VERTICAL FORCE MAGNET.—The vertical force magnet, for measure of the variations of vertical magnetic force, is by Troughton and Simms. It is 1 ft. 6 in. long and lozenge-shaped, being broad at the centre and pointed at the ends; it is mounted on a solid brick pier capped with stone, situated in the western arm of the Basement, its position being nearly symmetrical with that of the horizontal force magnet in the eastern arm. The supporting frame consists of two pillars, connected at their bases, on whose tops are the agate planes upon which rest the extreme parts of the continuous steel knife edge, attached to the magnet carrier by clamps and pinching screws. The knife edge, 8 inches long, passes through an aperture in the magnet. The axis of the magnet is approximately transverse to the magnetic meridian, its marked end being east; its axis of vibration is thus nearly north and south magnetic. The magnet carrier is of iron; at its southern end there is fixed a small plane mirror for use in eye observations, whose plane makes with the vertical plane through the magnet an angle of $52\frac{3}{4}^{\circ}$ nearly. A telescope, fixed to the west side of the central brick pier, is directed to the mirror for observation by reflexion of the divisions of a vertical opal glass scale fixed to the pier that carries the telescope, very near to the telescope itself. The numbers of this fixed scale increase downwards, so that when the magnet is placed in its usual position with the marked end east, increasing readings of the scale, as seen in the telescope, denote increasing vertical force.

The magnet is placed eccentrically between the bearing parts of its knife edge, nearer to the southern side, leaving a space of about 4 inches in the northern part of the iron frame, in which the concave mirror used for the photographic register is planted. Two steel screw stalks, carrying adjustable screw weights, are fixed to the magnet carrier, near its northern side; one stalk is horizontal, and a change in the position of the weight affects the position of equilibrium of the magnet; the other stalk is vertical, and change in the position of its weight affects the delicacy of the balance, and so varies the magnitude of its change of position produced by a given change in the vertical force of terrestrial magnetism.

In the year 1882 Messrs. Troughton and Simms substituted for the old mirror of 4 inches diameter a much lighter mirror of 1 inch diameter, and also lowered the

position of the knife-edge bar with respect to the magnet, so as to permit of a diminution of the adjustable counterpoise weights, which, as well as the mirror, appear to largely affect the temperature-correction of this balance magnet. The use of a smaller and much lighter mirror was rendered possible by the greater sensitiveness of the photographic paper introduced in 1882 June.

The whole is enclosed in a rectangular box, resting upon the pier before mentioned, and having apertures, covered with glass, opposite to the two mirrors carried by the magnet.

The time of vibration of the magnet in the vertical plane is observed usually about once in each week. From 62 observations made during the course of the year this was found to be 18^s.472.

The time of vibration of the magnet in the horizontal plane is determined by suspending the magnet with all its attached parts from a tripod stand, its broad side being in a plane parallel to the horizon, so that its moment of inertia is the same as when in observation. A telescope, with a wire in its focus, being directed to the plane mirror carried by the magnet, a scale of numbers is placed on the floor, at right angles to the long axis of the magnet, so as to be seen, by reflexion, in the fixed telescope. The magnet is observed only when swinging through a small arc. Observations made in the way described on 1897 December 30 gave for the time of vibration of the magnet in the horizontal plane 16^s.509. This value has been used throughout for the year 1901.

The length of the normal to the fixed vertical scale that meets the face of the plane mirror is 186.07 inches, and 30^{div.}.85 of the scale correspond to 12 inches. Consequently the angle which one division of the scale subtends, as seen from the mirror, is 7'.11".2, or the angular movement of the normal to the mirror, corresponding to a change of one division of scale-reading, is 3'.35".6.

But the angular movement of the normal to the mirror is equal to the angular movement of the magnet multiplied by the sine of the angle which the plane of the mirror makes with a vertical plane through the magnet. This angle, as already stated, is 52 $\frac{3}{4}$ ^o. Therefore, dividing the result just obtained, 3'.35".6, by sin 52 $\frac{3}{4}$ ^o, the angular motion of the magnet corresponding to a change of one division of scale-reading is found to be 4'.30".9.

The variation of vertical force, in terms of the whole vertical force, producing angular motion of the magnet corresponding to a change of one division of scale-reading = cotan dip $\times \left(\frac{T'}{T}\right)^2 \times$ value of one division in terms of radius, in which

T' is the time of vibration of the magnet in the horizontal plane, and T that in the vertical plane. Assuming $T' = 16^{\text{s}}\cdot509$, $T = 18^{\text{s}}\cdot472$, and dip = $67^{\circ}6'.5''$, the change of vertical force corresponding to change of one division of scale-reading was found to be $0\cdot0004431$, and this value has been used throughout the year 1901 for conversion of the observed scale-readings into parts of the whole vertical force.

The hours of observation of the vertical force magnet are the same as those for the horizontal force magnet, and the method of observation is precisely similar, the time of vertical vibration being substituted for that of horizontal. The wire in the fixed telescope is here horizontal, and as the magnet oscillates, the divisions of the scale are seen to pass upwards and downwards in the field of view.

As in the case of the horizontal force magnet, a thermometer is provided whose bulb projects into the interior of the magnet box. Readings are taken usually at 9^{h} , 10^{h} , 11^{h} , 12^{h} , 13^{h} , 14^{h} , 15^{h} , 16^{h} , and 21^{h} Greenwich civil time. An index-correction of $-0^{\circ}\cdot3$ has been applied to all readings.

The photographic register of the movements of the vertical force magnet is made on a cylinder of the same size as that used for declination and horizontal force, driven also by chronometer movement. The cylinder is here placed vertical instead of horizontal, and the variations of the barometer are also registered on it. The slit is horizontal, and other arrangements are generally similar to those already described for declination and horizontal force. The concave mirror carried by the magnet is 1 inch in diameter, and the slit is distant from it about 22 inches, being placed a little out of the straight line joining the mirror and the registering cylinder. There is a slight deviation in the further optical arrangements. Instead of falling on a reflecting prism (as for declination and horizontal force), the converging horizontal beam from the concave mirror falls on a system of plano-convex cylindrical lenses, placed in front of the cylinder, with their axes parallel to that of the cylinder. The trace is made on the western side of the cylinder, the position of the magnet being so adjusted, that the spot of light shall fall on the lower part of the sheet to avoid interference with the barometer trace. A base line is photographed, and the record is interrupted at each hour by the clock, and occasionally by the observer, for establishment of time scale, in the same way as for the other magnets. The length of the time scale is the same as that for the other magnetic registers.

The scale for measure of ordinates of the photographic curve is determined as follows:—The distance from the concave mirror of the magnet to the surface of the registering cylinder is 100·2 inches. But the double of this measure, or 200·4 inches, is the distance that determines the extent of motion on the cylinder of the spot of

light, which, in inches, for a change of 0·01 part of the whole vertical force, will therefore be = $200\cdot4 \times \tan \text{dip} \times \left(\frac{T}{T'}\right)^2 \times 0\cdot01$. Using the values of T , T' , and of dip before given (page *xxi*), the movement of the spot of light on the cylinder for a change of 0·01 of vertical force is thus found to be 5·940 inches, and with this unit the scale for measure of the ordinates was constructed for use throughout the year. Base line values were then determined and written on the sheets, and new base lines laid down, from which the hourly ordinates (see page *xxix*) were measured, exactly in the same way as was described for declination.

In regard to the temperature-correction of the vertical force magnet, it is only necessary here to say that, according to a series of experiments made 1882 October 17 to 23, in a similar manner to those for the horizontal force magnet (page *xviii*), and in temperatures ranging from $59^{\circ}\cdot3$ to $64^{\circ}\cdot9$, it appeared that an increase of 1° of temperature (Fahrenheit) produced an apparent increase of 0·00020 of vertical force, a value which succeeding experiments have closely confirmed. The value of the coefficient is thus much less than was found in the old state of the magnet with the large mirror, although still not following the ordinary law of increase of temperature producing loss of magnetic power. Further observations made in the years 1885 and 1886, of which particulars are given at the end of the Introduction for 1886, showed that through the range of temperature to which the magnet is usually exposed the increase of vertical force for increase of 1° of temperature is uniformly 0·000212, no term depending on the square of the temperature being here necessary, as in the case of horizontal force.

DIP INSTRUMENT.—The instrument with which the observations of magnetic dip are made is that which is known as Airy's instrument. It was constructed by Messrs. Troughton and Simms, and is mounted in the Magnetic Pavilion on a slate slab supported by a braced wooden stand built up from the ground independently of the floor. The plan of the instrument was arranged by Sir G. B. Airy so that the points of the needles should be viewed by microscopes, and, if necessary, observed whilst the needles were in a state of vibration; that there should be power of employing needles of different lengths; and that the field of view of each microscope should be illuminated from the side opposite to the observer, in such way that the needle point should form a dark image in the bright field.

The instrument is adapted to the observation of needles of 9 inches, 6 inches, and 3 inches in length. The main portion of the instrument, that in which the needle under observation is placed, consists of a square box made of gun metal (carefully selected to ensure freedom from iron), with back and front of glass. Six microscopes, so planted as to command the points of the three different lengths of needles, turn on a

horizontal axis so as to follow the points of the needles in the different positions which in observation they take up. The needle pivots rest on agate bearings. The object-glasses and field-glasses of the microscopes are within the front glass plate, their eye-glasses being outside, and turning with them on the same axis. Upon the plane side of each field-glass (the side next the object-glass and on which the image of the needle point is formed) a scale is etched, by means of which the position of the needle points is noted. And on the inner side of the front glass plate is etched the graduated circle, $9\frac{3}{4}$ inches in diameter, divided to 10', and read by two verniers to 10''. The verniers (thin plates of metal, with notches instead of lines, for use with transmitted light) are carried by the horizontal axis, inside the front glass plate, their reading lenses, attached to the same axis, being outside. A suitable clamp with slow motion is provided. The microscopes and verniers can be illuminated by one gas lamp, the light from which, falling on eight corresponding prisms, is thereby directed to each separate microscope and vernier. The prisms are carried behind the back glass plate on a circular frame in such a way that, on reversion of the instrument in azimuth, the whole set of prisms can at one motion of the frame be shifted so as to bring each one again opposite to its proper microscope or vernier.

Artificial light has not been employed for some years in making the observation.

The whole of the apparatus is planted upon a circular horizontal plate, admitting of rotation in azimuth. A graduated circle near the circumference of the plate is read by two fixed verniers.

A brass zenith-point needle, having points corresponding in position to the three different lengths of dip needles, is used to determine the zenith-point for each particular length of needle.

The instrument carries two levels—one parallel to the plane of the vertical circle, the other at right angles to that plane—by means of which the instrument is adjusted in level from time to time. The readings of the first-mentioned level are also regularly employed to correct the apparent value of dip for any small outstanding error of level; the correction seldom exceeds a very few seconds of arc.

Observations are made only in the plane of the magnetic meridian, and the following is a description of the method of proceeding. The needle to be used is first magnetised by double touch, giving it nine strokes on each of its sides: it is then placed in position in the instrument, the microscope scale-readings are taken, and the verniers of the vertical graduated circle are read: the readings of the level parallel to the plane of this circle are also read. The instrument is then reversed in azimuth, and a second

observation made. The needle pivots are then reversed on the agate bearings, and two observations in reversed positions of the instrument again made. The needle is then removed from the instrument and re-magnetised, so as to reverse the direction of its poles, and four more observations are made in the way just described. The mean of the eight partial values of dip thus found, corrected for error of level, gives the final value of dip which appears in the printed results.

The needles in regular use in 1901 are of the ordinary construction; they are the 3-inch needles, D_1 and D_2 .

DEFLEXION INSTRUMENT.—The observations of deflexion of a magnet in combination with observations of vibration of the deflecting magnet, for determination of the absolute measure of horizontal magnetic force, are made with a *Unifilar Instrument*, Gibson No. 3, which, with the exception of some slight modification of the mechanical arrangements, is similar to those issued from the Kew Observatory. The instrument is adapted to the determination of horizontal force in British (foot-grain-second) measure. It is mounted in the Magnetic Pavilion on a slate slab in the same way as the Dip instrument.

The deflected magnet, used merely to ascertain the ratio which the power of the deflecting magnet at a given distance bears to the power of terrestrial magnetism, 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 deflexion the deflecting magnet is placed on the transverse deflexion 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 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 deflexion rod from $1^{\text{ft}}\cdot 0$ east to $1^{\text{ft}}\cdot 0$ west of the engraved scale, at temperature 62° , is too long by 0.0034 inch, and the distance from $1^{\text{ft}}\cdot 3$ east to $1^{\text{ft}}\cdot 3$ west is too long by 0.0053 inch. The coefficient of expansion of the scale for 1° is 0.00001 .

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 deflexion observations, r_1, r_2 , be the apparent distances of centre of deflecting magnet from deflected magnet, corrected for scale-error and temperature (about $1\cdot 0$ and $1\cdot 3$ foot),

u_1, u_2 the observed angles of deflexion,

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

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

$P = \frac{A_1 - A_2}{\frac{A_1}{r_1^2} - \frac{A_2}{r_2^2}}$ [P 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 deflexion, corrected for temperature, rate of chronometer, semi-arc of vibration, induction, and torsion force.

From the combination of the values of $\frac{m}{X}$ and mX , m and X are immediately found. The computation is made with reference to English measure, taking as units of length and weight the foot and grain, but it is desirable to express X also in metric measure. If the English foot be supposed equal to α times the millimètre, and the grain equal to β times the milligramme, then, for reduction to metric measure, $\frac{m}{X}$ and mX must be multiplied by α^3 and $\alpha^2\beta$ respectively, or X must be multiplied by $\sqrt{\frac{\beta}{\alpha}}$. Taking the mètre as equal to 39·37079 inches, and the gramme as equal to 15·432349 grains, the factor by which X is to be multiplied in order to obtain X in metric (millimètre-milligramme-second) measure is $0·46108 = \frac{1}{2·1689}$. The values of X in metric measure thus derived from those in English measure are given in the proper table. Values of X in terms of the centimètre and gramme, known as the C.G.S. unit (centimètre-gramme-second unit), are readily obtained by dividing those referred to the millimètre and milligramme by 10.

EARTH CURRENT APPARATUS.—For observation of the spontaneous galvanic currents, which, in some measure, are almost always discoverable in the earth, and which are

occasionally very powerful, two insulated wires having earth connexions at Angerstein Wharf (on the bank of the River Thames near Charlton) and Lady Well for one circuit, and at the Morden College end of the Blackheath Tunnel and the North Kent East Junction of the South-Eastern Railway for the other circuit, have been employed. The connecting wires, which are special and used for no other purpose, pass from the Royal Observatory to the Greenwich Station of the South-Eastern Railway, and thence, by kind permission of the Directors of the South-Eastern Railway Company, along the lines of the Railway to the respective earths, in each case a copper plate. The direct distance between the earth plates of the Angerstein Wharf—Lady Well circuit is 3 miles, and the azimuth of the line, reckoning from magnetic north towards east, 49° ; in the Blackheath—North Kent East Junction circuit the direct distance is $2\frac{1}{2}$ miles, and the azimuth, from magnetic north towards west, 47° . The actual lengths of wire in the circuitous courses which the wires necessarily take in order to reach the Observatory registering apparatus are about $7\frac{1}{2}$ miles and 5 miles respectively. The identity of the four branches is tested from time to time as appears necessary.

In each circuit at the Royal Observatory there is placed a horizontal galvanometer, having its magnet suspended by a hair. Each galvanometer coil contains 150 turns of No. 29 copper wire, or the double coil of each instrument consists of 300 turns of wire, the resistance, as found by direct measurement, being 7.3 ohms. For registration of the larger earth currents, a portion only of the current is allowed to pass through the galvanometer, while the greater part flows through a shunt, consisting of a short coil of fine copper wire, the resistance of which is 1.33 ohms. The amplitude of the movement, having regard to the diminution of resistance in the circuit due to the shunt, is by this reduced in the ratio of 6.3 to 1 nearly in both circuits. On a few days in each month in former years registers on a large scale, for determination of the small diurnal inequality in earth currents, were obtained by removing the shunts, but no discussion of these registers has been made, on account of the difficulty of eliminating the effect of certain small dislocations of the Angerstein Wharf—Lady Well register, which occur usually shortly after sunset and before sunrise. It is suspected that these are due to electric lighting in the neighbourhood of the Angerstein Wharf earth plate. The galvanometers are placed on opposite sides of the registering cylinder, which is horizontal. One galvanometer stands towards one end of the cylinder, and the other towards the other end, and each carries, on a light stalk extending downwards from its magnet, a small plane mirror. Immediately above the cylinder are placed two long reflecting prisms, which, except that they are each but half the length of the cylinder, and are placed end to end, are generally similar to those used for magnetic declination and horizontal force, the front convex surfaces facing opposite ways, each

towards the mirror of its respective galvanometer. In each case the light of a gas lamp, passing through a vertical slit and a cylindrical lens having its axis vertical, falls upon the galvanometer mirror, which reflects the converging beam to the convex surface of the reflecting prism, by whose action it is made to form on the paper on the cylinder a small spot of light; thus all the azimuthal motions of the galvanometer magnet are registered. The extent of trace for each galvanometer is thus confined to half the length of the cylinder, which is of the same size as those used for the magnetic registers. The arrangements for turning the cylinder, automatically determining the time scale, and forming a base line, are similar to those which have been before described. When the traces on the paper are developed, the parts of the registers which appear in juxtaposition correspond, as for declination and horizontal force, to the same Greenwich time, and the scale of time is of the same length as for the magnetic registers.

Towards the end of the year 1890 serious disturbances began to be experienced in both earth current registers. These interruptions were found in the early part of the year 1891 to be due to the passage of trains on the City and South London Electric Railway, distant about $2\frac{1}{2}$ miles from the nearest earth plate (at the North Kent East Junction of the South-Eastern Railway), and about $4\frac{1}{2}$ miles from the Observatory. The abnormal excursions recorded indicate frequent changes of potential, varying from a small fraction of a volt to one-third of a volt or more, and the amount of change is approximately the same both in the Blackheath—North Kent East Junction circuit, which is perpendicular to the course of the electric railway, and in the Angerstein Wharf—Lady Well circuit, which is parallel to the line of railway, with one earth plate (Angerstein Wharf) near the river. At night when the trains are not running, the interruptions entirely cease.

§ 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 1901

which are classed as days of great disturbance. Other days of lesser disturbance are January 5–6, 22–23; February 22–23; March 24–25; May 10–11; July 11–12; September 10–11; October 8–9. When two days are mentioned, it is to be understood that the reference is usually to one set of photographic 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, the measures being entered in a form having double argument—the vertical argument ranging through the 24 hours of the civil day (0^{h} to 23^{h}), and the horizontal argument through the days of a calendar month; the means of the numbers standing in the vertical columns giving the mean daily value of the element, and the means of the numbers in the horizontal columns the mean monthly value at each hour of the day. 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 omissions have been made on account of disturbed days, in the formation of these Tables; but from other causes the following days are omitted in Tables I. and II. for declination, and in Tables III. to VI. for horizontal force, viz. February 17, 18, 26, 27; August 12, 13, 14, 15, 18, 19; October 12, 13; November 28, 29, with the addition of January 1, in Tables III. to VI.; in Tables VII. to X. for vertical force, December 31 only is omitted.

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

The temperature of the horizontal and vertical force magnets was maintained so nearly uniform through each day, that the determination of the diurnal inequalities of horizontal and vertical force should possess great exactitude. By means of the additional stove placed in the western arm of the Basement, as mentioned on page *v*, the temperature of the Basement has also been kept nearly constant throughout the year, the endeavour being to keep the temperature as near to 67° as possible. In years preceding 1883 the results for horizontal and vertical force were given uncorrected for temperature, leaving the correction to be applied when the results for series of years are collected for discussion; but from

the beginning of the year 1883 it has been considered desirable to add also, in Tables III., V., VII., and IX., results corrected for temperature, in order to render them more immediately available. In Tables XI. and XII., only results corrected for temperature are given. The corrected mean daily and mean hourly values of horizontal force given in Tables III. and V. respectively are obtained by applying to the uncorrected values the correction $(t-32) \times .0000936 + (t-32)^2 \times .000002074$ (page *xix*), where t is the temperature in degrees Fahrenheit; and to those of vertical force, Tables VII. and IX., the correction $- (t-32) \times .000212$ (page *xxii*). The corrections applied 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 entered into a form having double arguments as for the magnets, the mean hourly values deduced therefrom giving for each month the variation through the day, and the mean daily values the variation through the month. 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, u in Table III. on September 1, which should be taken as 1001 for comparison with the succeeding value, 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 .00001 of the whole horizontal and vertical forces respectively taken as units. In Tables XI. and XII. they have been also expressed in terms of .00001 of Gauss's absolute unit, as referred to the metrical system of the millimètre-milligramme-second.

The factors for conversion from the former to the latter system of measures are as follows:—

For variation of declination, expressed in minutes, the factor is

$$\text{H.F. in metrical measure} \times \sin 1' = 1.8481 \times \sin 1' = 0.0005376.$$

For variation of horizontal force, the factor is

$$\text{H.F. in metrical measure} = 1.8481,$$

and for variation of vertical force

$$\begin{aligned}\text{V.F. in metrical measure} &= \text{H.F. in metrical measure} \times \tan \text{dip}, \\ &= 1.8481 \times \tan 67^\circ 6'.5'' = 4.3754.\end{aligned}$$

The measures as referred to the millimètre-milligramme-second system are readily convertible into measures on the centimètre-gramme-second (C.G.S.) system by dividing by 10.

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 xxix), 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 the coefficients contained in Table XV. have been thus computed, 0 representing the value at 0^h (midnight), 1 that at 1^h, and so on.

$$m = \frac{1}{24}(0+1+2 \dots 22+23).$$

$$\begin{aligned}12 a_1 = 0-12 + &\{ (1+23) - (11+13) \} \cos 15^\circ + \{ (2+22) - (10+14) \} \cos 30^\circ \\ &+ \{ (3+21) - (9+15) \} \cos 45^\circ + \{ (4+20) - (8+16) \} \cos 60^\circ \\ &+ \{ (5+19) - (7+17) \} \cos 75^\circ.\end{aligned}$$

$$\begin{aligned}
 12 b_1 &= 6 - 18 + \{ (5+7) - (17+19) \} \sin 75^\circ + \{ (4+8) - (16+20) \} \sin 60^\circ \\
 &\quad + \{ (3+9) - (15+21) \} \sin 45^\circ + \{ (2+10) - (14+22) \} \sin 30^\circ \\
 &\quad + \{ (1+11) - (13+23) \} \sin 15^\circ. \\
 12 a_2 &= (0+12) - (6+18) + \{ (1+11+13+23) - (5+7+17+19) \} \cos 30^\circ \\
 &\quad + \{ (2+10+14+22) - (4+8+16+20) \} \cos 60^\circ. \\
 12 b_2 &= (3+15) - (9+21) + \{ (2+4+14+16) - (8+10+20+22) \} \sin 60^\circ \\
 &\quad + \{ (1+5+13+17) - (7+11+19+23) \} \sin 30^\circ. \\
 12 a_3 &= (0+8+16) - (4+12+20) + \{ (1+7+9+15+17+23) - (3+5+11+13+19+21) \} \cos 45^\circ. \\
 12 b_3 &= (2+10+18) - (6+14+22) + \{ (1+3+9+11+17+19) - (5+7+13+15+21+23) \} \sin 45^\circ. \\
 12 a_4 &= (0+6+12+18) - (3+9+15+21) \\
 &\quad + \{ (1+5+7+11+13+17+19+23) - (2+4+8+10+14+16+20+22) \} \cos 60^\circ. \\
 12 b_4 &= \{ (1+2+7+8+13+14+19+20) - (4+5+10+11+16+17+22+23) \} \sin 60^\circ.
 \end{aligned}$$

The values of the coefficient c_1 and of the constant angles α contained in Table XVI. are then determined by means of the following relations :—

$$\frac{a_1}{b_1} = \tan \alpha \quad c_1 = \frac{a_1}{\sin \alpha} = \frac{b_1}{\cos \alpha}.$$

Similarly for $c_2, \beta, \&c.$.

Finally, the values of the angles $\alpha', \beta', \&c.$ were thus found. Calling the Sun's hour-angle east at mean midnight = h , then—

$$\begin{aligned}
 \alpha' &= \alpha + h \\
 \beta' &= \beta + 2h \\
 \&c. &= \&c.,
 \end{aligned}$$

a mean value of h for the month being employed.

The values of a_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 :—

1901.	a_5 .	b_5 .
Declination	-0.04	-0.02
Horizontal Force	+1.5	-1.5
Vertical Force	+0.8	-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 (xii), corresponding to the single terms of the expressions on page (xiii), 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.

For the Year 1901.	Declination.	Horizontal Force.	Vertical Force.
Sums of Squares of Observed Values (Table XII.)	201·18	200579·9	9469·8
Sums of Squares of Residuals after the introduction of m	66·33	33429·6	1307·5
" " a_1 and b_1	30·66	9410·4	913·4
" " a_2 and b_2	7·11	1668·0	335·1
" " a_3 and b_3	0·75	480·5	50·3
" " a_4 and b_4	0·04	62·0	15·0
" " a_5 and b_5	0·02	7·8	3·2

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 a_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 (xviii), 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.

No numerical discussion of Earth Current records is contained in the present volume.

In the treatment of disturbed days it was formerly the custom to measure out for each element all salient points of the curves, and to print the numerical values. But, since the year 1882, it has been considered preferable to give instead of these tables reduced copies of the actual photographic curves (reproduced by photo-lithography from full-sized tracings of the original photographs), adding thereto copies of the corresponding earth current curves. In the present year no copies of earth current curves have been given because of the interruption produced by the trains running on the City and South London Electric Railway. The registers thus exhibited are those for the days of lesser disturbance mentioned on page *xxix*.

The list of these days since the year 1889 has been selected in concert with M. Mascart, so that the two Observatories 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 1901, 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 (xxix).

An additional plate (III.) exhibits the registers of declination, horizontal force, 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 earth currents on these days are very small.

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 page *xxx*, 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 :—

	—	LENGTH IN INCHES.						
		Of 1° of Declination.		Of 0.01 of Horizontal Force.		Of 0.01 of Vertical Force.		
		in.	mm.	in.	mm.	in.	mm.	
On the Photographs -		4.691	119.15	2.468	62.69	5.940	150.87	
On the Plates -		2.580	65.53	1.357	34.48	3.267	82.98	

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 .00001 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. (See page *xxxvi*.)

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
 $= 0.0175$ of Horizontal Force,
and Vertical Force = Horizontal Force $\times \tan$ dip [adopted dip = $67^\circ 6' 5''$]
 $=$ Horizontal Force $\times 2.3675$;

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

	—	LENGTH OF UNIT, EQUIVALENT TO 0.01 OF HORIZONTAL FORCE.							
		For Declination Curve.		For Horizontal Force Curve.		For Vertical Force Curve.			
		in.	mm.	in.	mm.	in.	mm.		
On the Photographs -		2.68	68.1	2.47	62.7	2.51	63.7		
On the Plates -		1.47	37.4	1.36	34.5	1.38	35.0		

It may be convenient to give also comparative scale values for the different systems of absolute measurement, viz. :—

Foot-grain-second, or British unit, in terms of which Mean H.F. for 1901 = 4.0082
Millimetre-milligramme-second, or Metric unit, " " " = 1.8481
Centimètre-gramme-second, or C.G.S. unit, " " " = 0.18481

Dividing, therefore, the scale values last given by 4.0082, 1.8481, and 0.18481 respectively, the following comparative scale values for each of the elements on the photographs and on the plates as referred to 0.01 of these units respectively are found :—

UNIT.	LENGTH OF 0.01 OF UNIT.											
	Declination.				Horizontal Force.				Vertical Force.			
	On the Photographs.		On the Plates.		On the Photographs.		On the Plates.		On the Photographs.		On the Plates.	
British -	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.
	0.67	17.0	0.37	9.3	0.62	15.6	0.34	8.6	0.63	15.9	0.34	8.7
Metric -	1.45	36.8	0.80	20.3	1.34	33.9	0.73	18.7	1.36	34.5	0.75	19.0
C.G.S. -	14.5	368	8.0	203	13.4	339	7.3	187	13.6	345	7.5	190

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, and at somewhat different times on Sundays.

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 -0ⁱⁿ.006, 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

xxxviii INTRODUCTION TO GREENWICH METEOROLOGICAL OBSERVATIONS, 1901.

barometers (after applying to the Greenwich barometer-readings the correction $-0^{in} \cdot 006$) did not exceed $0^{in} \cdot 001$. (*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 $5^{in} \cdot 2^{in}$ 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) on week days; and at 10^h , noon, and 20^h on Sundays. 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, the register being arranged to fall on the upper half of the cylinder, on its eastern side. 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 blackened mica, 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 = $4^{in} \cdot 39$ 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 *li*) 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 and wet bulb thermometers used throughout the year are Negretti and Zambra, Nos. 45354 and 45356 respectively.

The correction $-0^{\circ}3$ has been applied to the readings of both these thermometers.

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. To the readings of Negretti and Zambra, No. 83760, for maximum temperature of the air, a correction has been applied of $-0^{\circ}1$; and to those of No. 38338, for minimum temperature of the air, a correction of $+0^{\circ}2$ has been applied. The readings of Negretti and Zambra, No. 79224, for maximum temperature of evaporation, required no correction, and to those of No. 2048 used until February 20, for minimum temperature of evaporation, a correction of $+0^{\circ}7$ has been applied. On February 21, this thermometer having been accidentally broken, it was temporarily replaced by Negretti and Zambra, No. 87573 which was used until March 24 and required a correction to its readings of $+0^{\circ}3$. A new thermometer Negretti and Zambra, No. 98508 was then brought into use which required the following corrections for index error:—below 59° , $0^{\circ}0$, above 59° , $+0^{\circ}2$.

The dry and wet bulb thermometers are read at 9^h , 12^h (noon), 15^h , 21^h (civil reckoning) on week days, and at 10^h , noon, and 20^h on Sundays. Readings of the maximum and minimum thermometers are taken at 9^h and 21^h on week days, and at 10^h and 20^h on Sundays. 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 $-0^{\circ}1$ has been applied. The wet-bulb is Hicks No. 268525, to the readings of which a correction of $+0^{\circ}1$ has been applied. The maximum thermometer is Negretti and Zambra, No. 85059, which required no correction. To the readings of the minimum thermometer, Negretti and Zambra, No. 68873, a correction of $+0^{\circ}3$ has been applied. The observation of the dry and wet bulb thermometers is omitted on Sundays and a few other days.

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.

At the beginning of the year 1886 three thermometers were mounted on the platform above the Magnet House, in a louvre-boarded shed or screen, so constructed as to give free circulation of air with protection from radiation. The thermometer for eye-observation of the temperature of the air, used in the year 1901 was Hicks, No. 268524 which required no correction. No. 37467, by Negretti and Zambra, is a self-registering maximum thermometer, to the readings of which a correction of $-0^{\circ}5$ has been applied. No. 342663, by Hicks, is a self-registering minimum thermometer, to the readings of which corrections have been applied as follow: 20° to $33^{\circ} - 0^{\circ}1$, 33° to $40^{\circ} 0^{\circ}0$, 40° to $46^{\circ} + 0^{\circ}1$, 46° to $53^{\circ} + 0^{\circ}2$, 53° to $58^{\circ} + 0^{\circ}3$, 58° to $62^{\circ} + 0^{\circ}4$, and above $62^{\circ} + 0^{\circ}5$. The bulbs of all these thermometers are 4 feet above the platform, and about 20 feet above the ground. The eye-observation of the thermometer for temperature of the air is omitted on Sundays and a few other days.

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 which required no correction to their readings. To the readings of the maximum thermometer, Negretti and Zambra, No. 85066, no correction is required, and to those of the minimum thermometer, Negretti and Zambra, No. 85080, a correction of $+ 0^{\circ}2$ has been applied.

PHOTOGRAPHIC DRY-BULB AND WET-BULB THERMOMETERS.—The apparatus now in use was constructed in the year 1884 by Messrs. Negretti & Zambra from designs furnished by me, and was mounted in the year 1885, but from various causes it was not brought into regular use until 1887 January 1. Until February 1891 it stood nearly in the centre of the South Ground: it was then removed to the Magnet Ground, being placed in the position formerly occupied by the old apparatus, which had been previously dismantled. It is placed under a shed, 8 feet square, standing upon posts about 8 feet high. On 1899 May 16 and 17, the shed was shifted 15 feet westwards. This shed is open to the north, and is generally similar to that provided for the old apparatus, excepting that the roof inclines somewhat towards the south, and that the protecting boards (fixed as far as necessary on the eastern, southern, and western sides) are double, with spaces

between to ensure a free circulation of air while screening the thermometers from the direct rays of the sun. The thermometers are further protected from sky and ground radiation by boards on the thermometer stand as described below. The photographic register is received on paper placed on a vertical ebonite cylinder $11\frac{1}{2}$ inches high and $14\frac{1}{4}$ inches in circumference, and I have arranged that the dry and wet bulb traces shall fall on the same part of the cylinder, as regards time scale, a long air-bubble in the wet-bulb thermometer column giving 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 0.1 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.

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. 72540. 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. 5 appears to read too high by 0°·2, and No. 6 by 0°·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^{ft.} 2^{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.

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.

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.

It is assumed, in accordance with the experiments made by Dr. Robinson, that the horizontal motion of the air is three times the space described by the centres of the cups. To verify this conclusion, experiments were made in the year 1860 in Greenwich Park with the anemometer by Negretti and Zambra, which was in use from 1859 until the introduction of the larger instrument by Browning in 1866 October. The instrument was fixed to the end of a horizontal arm, which was made to revolve round a vertical axis. For more detailed account of these experiments see the Introduction for 1880 and for previous years. With the arm revolving in the direction N., E., S., W., opposite to the direction of rotation of the cups, for movement of the instrument through 1 mile, 1.15 was registered; with the arm revolving in the direction N., W., S., E., in the same direction as the rotation of the cups, 0.97 was registered. This

was considered to confirm sufficiently the accuracy of the assumption. The hemispherical cups of the instrument with which these experiments were made were each $3\frac{3}{4}$ inches in diameter, the distance between the centres of the opposite cups being 13·45 inches.

From 1889 April 22 to May 8, both of the above instruments were sent to Mr. W. H. Dines, who kindly tested them on his whirling machine then erected at Hersham. The particulars of these experiments are given at the end of the Introduction for 1889. The results appear to show that the instrumental results in the case of high velocities of the wind are too great for both anemometers, but it has been thought better, for the sake of continuity, not to apply any corrections to the recorded values, which consequently indicate velocities corresponding to three times the space described by the centres of the cups.

RAIN GAUGES.—During the year 1901 eight rain gauges were employed, placed at different elevations above the ground, complete information in regard to which will be found at page (cviii) 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.

xlviii INTRODUCTION TO GREENWICH METEOROLOGICAL OBSERVATIONS, 1901.

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.

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 on the ground in the Magnetic Pavilion enclosure, about 10 feet north-west of the thermometer stand, and gauges Nos. 7, and 8 also 8-inch circular gauges, are placed on the ground south-east of the Magnetic Observatory; No. 6 is the Standard gauge, No. 7 the old monthly gauge, and No. 8 an additional gauge brought into use in July 1881 as a check on the readings of Nos. 6 and 7. 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.

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 electrometer, constructed by White, of Glasgow.

For a full description of the principle of the electrometer, reference may be made to Lord Kelvin's "Report on Electrometers and Electrostatic Measurements," contained in the *British Association Report* for the year 1867. It will be sufficient here to give a general description of the instrument which, with its registering apparatus, is planted in the Upper Magnet Room on the slate slab which carries the suspension pulleys of the Horizontal Force Magnet. A thin flat needle of aluminium, carrying immediately above it a small light mirror, is suspended, on the bifilar principle, by two silk fibres from an insulated support within a large Leyden jar. A little strong sulphuric acid is placed in the bottom of the jar, and from the lower side of the needle depends a platinum wire, kept stretched by a weight, which connects the needle with the sulphuric acid—that is, with the inner coating of the jar. A positive charge of electricity being given to the needle and jar, this charge is easily maintained at a constant potential by means of a small electric machine or replenisher forming part of the instrument, and by which the charge can be either increased or diminished at pleasure. A gauge is provided for the purpose of indicating at any moment the amount of charge. The needle hangs within four insulated quadrants, which may be supposed to be formed by cutting a circular flat brass box into quarters, and then slightly separating them. The opposite quadrants are placed in metallic connexion.

Lord Kelvin's water-dropping apparatus is used to collect the atmospheric electricity. For this purpose a rectangular cistern of copper, capable of holding above

30 gallons of water, is placed near the ceiling on the west side of the south arm of the Upper Magnet Room. The cistern rests on four pillars of glass, each one encircled and nearly completely enclosed by a glass vessel containing sulphuric acid. A pipe passing out from the cistern, through the south face of the building, extends about 6 feet into the atmosphere, the nozzle (about 10 feet above the ground) having a very small hole, through which the water passes and breaks almost immediately into drops. The cistern is thus brought to the same electrical potential as that of the atmosphere, near the nozzle, and this potential is communicated by means of a connecting wire to one of the pairs of electrometer quadrants, the other pair being connected to earth. The varying atmospheric potential thus influences the motions of the included needle, causing it to be deflected from zero in one direction or the other, according as the atmospheric potential is greater or less than that of the earth—that is, according as it is positive or negative.

The small mirror carried by the needle is used for the purpose of obtaining photographic record of its motions. The light of a gas lamp, passing through a slit and falling upon the mirror, is thence reflected, and by means of a plano-convex cylindrical lens is brought to a focus at the surface of a horizontal cylinder of ebonite, nearly 7 inches long and 16 inches in circumference, which is turned by clock-work. A second fixed mirror, by means of the same gas lamp, causes a reference line to be traced round the cylinder. The actual zero is found by cutting off the cistern communication, and placing the pairs of quadrants in metallic connexion with each other and with earth. The break of register at each hour is made by the driving-clock of the electrometer cylinder itself. Other photographic arrangements are generally similar to those which have been described for other instruments.

The scale of time is the same as that of the magnetic registers.

Interruptions sometimes occur through cobwebs making connexion between the cistern or its pipe and the walls of the building, and in winter, from the occasional freezing of the water in the exit pipe.

SUNSHINE RECORDER.—Until the end of the year 1886 the instrument with which the record given in the printed volume was made was that presented to the Royal Observatory by Mr. J. F. Campbell, by whom this method of record was devised. This instrument is fully described in the Introductions to previous volumes. Commencing with the year 1887, the record is that of a modification of the Campbell form of instrument, as arranged by Sir G. G. Stokes for use at the observing stations of the Meteorological Office. By employing this instrument, the manipulation of which is more simple, there is the further advantage that the Greenwich results become strictly com-

J INTRODUCTION TO GREENWICH METEOROLOGICAL OBSERVATIONS, 1901.

parable with those of the Meteorological Office Stations. A very complete account of the Campbell-Stokes instrument is given in the *Quarterly Journal of the Royal Meteorological Society*, vol. vi. page 83. 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 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 is fixed on the south-west corner of the roof of the Photographic Thermometer shed, at a height of about 10 feet from the ground. The box in which the papers are 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. 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 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 xxix), 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 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 (lxii) and (lxiii)) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pages (lx) and (lxii)).

The excess of the mean temperature of the air on each day above the average of 50 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 fifty years 1841-1890. In this series the mean daily temperature from 1841 to 1847 depends usually on 12 observations daily, in 1848 on 6 observations daily, and from 1849 to 1890 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
Fifty Years 1841-1890.

Day of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	38° 5	39° 7	40° 2	45° 4	49° 2	57° 2	61° 3	62° 2	59° 7	54° 1	46° 7	40° 6
2	38° 5	39° 7	40° 4	45° 7	49° 4	57° 7	61° 4	62° 1	59° 7	53° 8	46° 5	40° 6
3	38° 5	39° 7	40° 5	46° 0	49° 7	58° 0	61° 7	62° 1	59° 6	53° 5	46° 3	40° 8
4	38° 4	39° 8	40° 7	46° 2	50° 0	58° 2	61° 9	62° 2	59° 4	53° 2	46° 1	41° 1
5	38° 3	39° 8	40° 9	46° 2	50° 3	58° 3	62° 1	62° 3	59° 3	53° 0	45° 9	41° 3
6	38° 2	39° 7	41° 1	46° 2	50° 6	58° 3	62° 2	62° 4	59° 1	52° 7	45° 5	41° 3
7	38° 1	39° 4	41° 0	46° 1	50° 8	58° 2	62° 1	62° 5	58° 9	52° 5	45° 1	41° 0
8	38° 0	39° 1	40° 9	45° 9	51° 0	58° 2	62° 0	62° 5	58° 7	52° 1	44° 6	40° 6
9	37° 9	38° 7	40° 8	45° 6	51° 2	58° 2	62° 0	62° 5	58° 5	51° 7	44° 0	40° 3
10	37° 9	38° 4	40° 7	45° 5	51° 5	58° 2	62° 1	62° 5	58° 3	51° 3	43° 6	39° 9
11	37° 9	38° 3	40° 6	45° 5	51° 7	58° 4	62° 3	62° 5	58° 1	51° 0	43° 2	39° 8
12	37° 9	38° 5	40° 7	45° 7	52° 0	58° 6	62° 6	62° 5	58° 0	50° 6	42° 9	39° 9
13	38° 0	38° 8	40° 9	46° 0	52° 3	58° 8	62° 9	62° 4	57° 9	50° 3	42° 8	40° 1
14	38° 2	39° 2	41° 2	46° 4	52° 6	58° 9	63° 1	62° 3	57° 8	50° 1	42° 6	40° 2
15	38° 3	39° 6	41° 4	46° 9	52° 8	59° 0	63° 2	62° 1	57° 7	49° 9	42° 5	40° 3
16	38° 5	39° 8	41° 5	47° 3	53° 1	59° 0	63° 2	62° 0	57° 5	49° 8	42° 4	40° 2
17	38° 5	39° 8	41° 6	47° 7	53° 3	59° 1	63° 1	61° 8	57° 3	49° 6	42° 3	40° 0
18	38° 5	39° 7	41° 6	48° 1	53° 6	59° 2	63° 0	61° 6	56° 9	49° 5	42° 2	39° 7
19	38° 5	39° 6	41° 5	48° 3	53° 9	59° 5	63° 0	61° 4	56° 5	49° 3	42° 2	39° 3
20	38° 4	39° 5	41° 4	48° 5	54° 2	59° 9	63° 0	61° 3	56° 1	49° 0	42° 1	39° 0
21	38° 3	39° 5	41° 4	48° 5	54° 6	60° 3	63° 0	61° 1	55° 7	48° 8	42° 1	38° 8
22	38° 3	39° 6	41° 5	48° 5	55° 0	60° 7	62° 9	61° 0	55° 4	48° 5	42° 2	38° 6
23	38° 4	39° 8	41° 8	48° 4	55° 3	61° 0	62° 8	60° 9	55° 2	48° 2	42° 1	38° 4
24	38° 5	39° 9	42° 1	48° 4	55° 6	61° 2	62° 6	60° 8	55° 1	47° 9	42° 1	38° 3
25	38° 8	40° 0	42° 4	48° 4	55° 7	61° 3	62° 4	60° 8	55° 0	47° 6	42° 0	38° 3
26	39° 0	40° 1	42° 9	48° 4	55° 9	61° 4	62° 3	60° 8	54° 9	47° 4	41° 9	38° 4
27	39° 3	40° 1	43° 3	48° 5	56° 0	61° 4	62° 3	60° 7	54° 9	47° 3	41° 6	38° 4
28	39° 5	40° 2	43° 7	48° 6	56° 0	61° 3	62° 3	60° 6	54° 8	47° 2	41° 3	38° 5
29	39° 7		44° 1	48° 8	56° 2	61° 2	62° 3	60° 3	54° 6	47° 0	41° 0	38° 6
30	39° 8		44° 6	49° 0	56° 5	61° 2	62° 3	60° 1	54° 4	47° 0	40° 7	38° 6
31	39° 8		45° 0		56° 8		62° 3	59° 9		46° 8		38° 6
Means	38° 5	39° 5	41° 7	47° 2	53° 1	59° 4	62° 4	61° 6	57° 2	50° 0	43° 2	39° 7

The mean of the twelve monthly values is 49° 5.

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 (lix) and (cviii), 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 Electro-meter. 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 (xxxiii) to (lv), and in the abstract table, page (lix), 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.

METEOROLOGICAL RESULTS.

iv

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 fifty years 1841–1890.

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; observations of thermometers in a Stevenson screen in the Observatory Grounds, on the roof of the Magnet House, and in another Stevenson screen in the Magnetic Pavilion Enclosure; 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; rain results; and observations of 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 (lx) and (lxi), do not in some cases agree with the monthly means given in the daily results,

pages (xxxii) to (liv), and in the table on page (lix), 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.

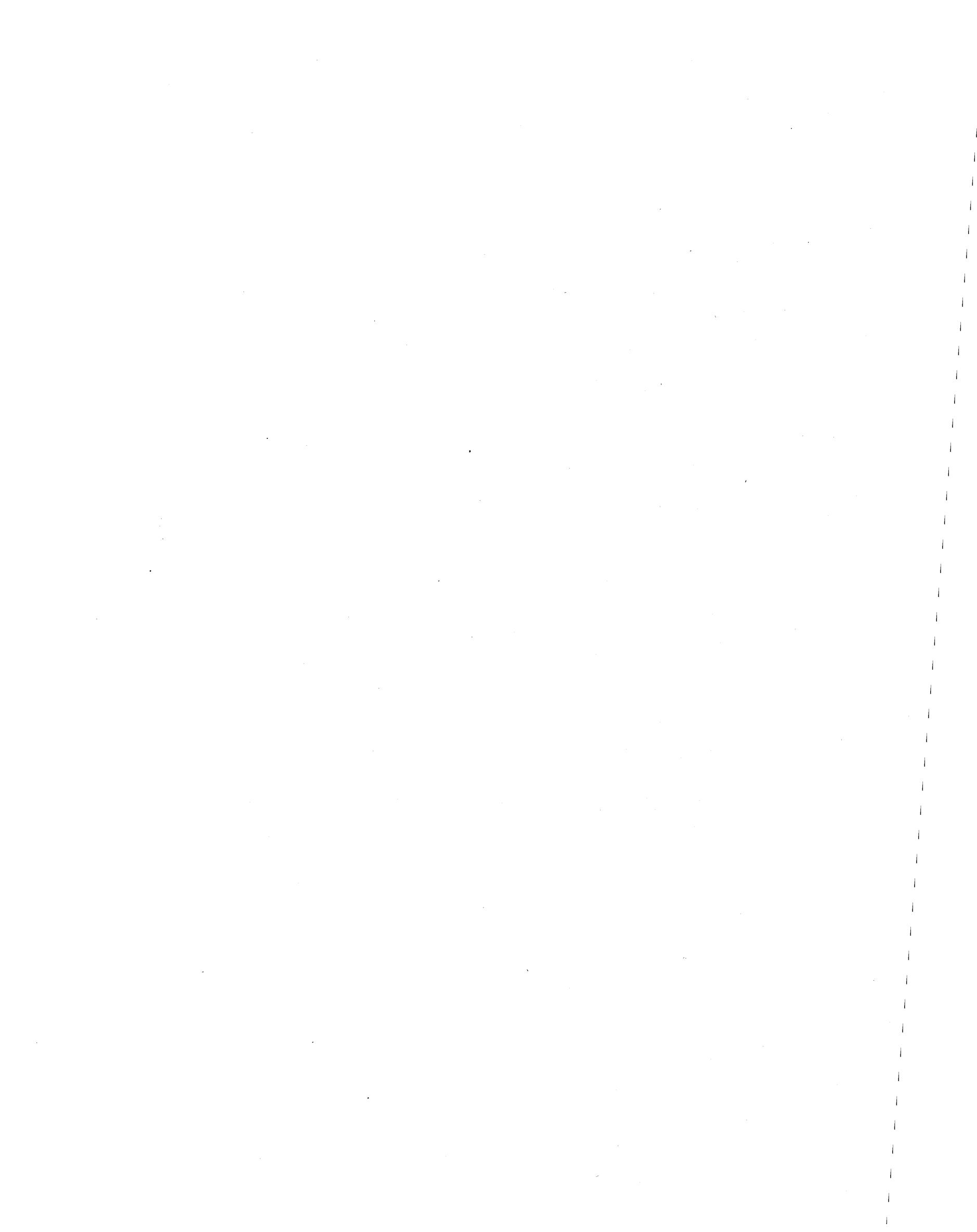
The table, "Abstract of the Changes of the Direction of the Wind," as derived from Osler's Anemometer, page (xcv), exhibits every change of direction of the wind occurring throughout the year, whenever such change amounted to two nautical points or $22\frac{1}{2}^{\circ}$. It is to be understood that 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 (cii), 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 $0^{in}.020$, 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 (cvi) and (cvii) 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 1901 were Mr. Nash, Mr. Crommelin, Mr. Edney, Mr. Birkett, Mr. Clarke, Mr. Parkinson, Mr. Perry, Mr. A. Showell and Mr. Stevens. Their observations are distinguished by the initials N, A.C., E, B, C, P, W.P., S, and W.S., respectively.

W. H. M. CHRISTIE.

ROYAL OBSERVATORY, GREENWICH,
1903, August.



ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL OBSERVATIONS,

1901.

RESULTS OF OBSERVATIONS OF MAGNETIC DECLINATION AND HORIZONTAL FORCE

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

Day of Month.	1901.											
	January.		February.		March.		April.		May.		June.	
	16°											
d												
1	28.6	27.5	27.3	27.8	26.8	25.5	26.5	25.1	25.9	25.4	24.7	24.5
2	28.2	27.6	27.8	27.9	25.7	25.5	26.1	25.4	25.3	24.5	25.3	24.0
3	28.9	26.9	27.8	27.7	26.1	26.2	26.2	25.8	25.9	24.8	24.8	23.3
4	28.7	27.0	27.7	27.6	25.7	25.5	26.8	25.2	26.0	24.9	25.1	23.2
5	28.3	27.2	27.6	27.4	25.7	26.1	26.3	24.8	26.2	24.9	24.6	24.2
6	28.1	27.1	27.5	27.3	25.8	25.9	26.4	25.1	26.1	25.3	25.0	23.9
7	27.9	26.9	27.9	27.1	25.9	26.4	26.6	25.0	25.3	25.2	24.9	23.7
8	27.8	26.9	27.3	27.4	25.9	26.2	25.6	26.2	25.2	24.5	24.7	23.7
9	28.0	26.9	27.9	27.5	25.9	25.9	26.4	25.1	25.1	24.4	25.2	23.6
10	27.7	26.7	27.3	27.9	25.3	26.2	25.6	24.6	24.9	24.2	24.3	23.6
11	27.5	27.2	26.6	26.8	25.0	25.8	26.4	25.6	25.9	24.5	24.6	23.2
12	28.0	27.7	27.4	27.2	25.6	26.4	25.5	...	25.7	...	24.2	23.4
13	28.2	27.2	28.3	27.6	25.0	25.5	26.2	...	25.3	...	24.5	23.5
14	28.1	27.3	27.5	27.7	25.6	24.3	25.7	...	25.9	24.3	24.3	23.9
15	27.5	27.0	27.8	27.3	26.2	27.0	26.1	...	25.7	24.6	24.8	23.7
16	26.9	27.1	27.9	27.2	25.4	26.3	25.7	25.7	26.2	23.8	24.7	23.3
17	26.9	...	28.1	27.0	25.0	26.4	27.0	25.6	24.9	24.2	24.7	23.1
18	27.6	...	28.4	26.9	25.3	26.2	26.2	...	25.1	24.5	24.1	23.1
19	27.5	27.8	27.0	27.5	25.6	26.2	25.9	...	25.7	24.8	24.4	23.9
20	28.1	27.2	28.0	27.8	25.9	26.3	25.7	25.8	25.2	24.5	24.3	24.8
21	28.0	27.2	27.9	28.3	25.5	26.0	25.8	25.1	25.2	24.4	24.1	24.7
22	28.3	25.8	27.7	29.1	26.0	26.1	26.9	24.7	24.8	24.6	24.2	24.4
23	27.3	27.0	26.9	27.9	26.5	26.1	26.1	25.6	24.7	24.5	24.4	24.5
24	27.7	26.9	28.1	26.1	24.5	25.4	26.3	24.9	24.9	24.6	24.4	24.5
25	27.9	27.2	27.3	27.2	25.3	25.9	25.6	25.3	26.0	25.1	24.5	24.5
26	28.1	...	27.8	27.7	26.1	25.7	26.5	25.5	26.6	24.3	23.9	24.5
27	27.8	...	27.2	28.1	25.7	26.1	25.1	25.1	26.2	24.3	24.0	24.7
28	27.9	26.8	27.7	27.1	25.5	26.1	25.3	25.5	26.0	24.5	...	24.5
29	27.9	27.4	27.4	27.2	26.2	25.2	25.4	25.2	26.4	24.1	...	24.2
30	27.9	27.1	27.4	25.7	26.1	25.5	25.1	26.5	24.3	24.4	24.1	24.1
31	27.8	27.5	27.5	25.9	25.5	25.5	25.3	24.3	24.3	24.3	24.1	24.1

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

Hour Greenwich Civil Time.	1901.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Midn.	0.4	0.3	1.5	3.0	3.2	3.0	3.2	2.6	1.8	0.9	0.2	0.5
1 ^h	0.7	0.6	1.4	3.1	3.1	2.6	3.0	2.4	1.9	1.2	0.5	0.7
2	1.0	1.1	1.7	3.2	2.9	2.5	2.9	2.3	1.7	1.5	0.8	0.9
3	1.2	1.5	1.9	3.1	2.8	2.4	2.7	2.1	1.6	1.7	0.8	1.2
4	1.2	1.3	1.9	2.9	2.5	2.0	2.3	1.9	1.6	1.8	0.8	1.1
5	1.1	1.1	1.7	2.7	1.8	1.2	1.2	1.1	1.4	1.6	0.8	0.9
6	1.0	1.0	1.4	2.2	1.1	0.4	0.4	0.4	0.8	1.4	0.6	0.7
7	0.7	0.5	0.8	1.0	0.3	0.0	0.1	0.0	0.1	0.8	0.3	0.7
8	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.2	0.5
9	0.2	0.2	0.1	0.1	0.7	0.9	0.9	1.7	1.1	0.0	0.2	0.5
10	0.7	1.0	1.6	1.8	2.5	2.8	2.8	3.6	3.1	1.5	1.1	1.0
11	1.5	2.3	4.0	4.4	5.1	5.2	5.2	5.7	5.5	3.8	2.4	1.9
Noon.	2.4	3.2	6.4	7.1	7.3	7.3	7.4	7.4	7.1	5.4	3.2	2.4
13 ^h	3.2	4.1	7.2	8.5	8.2	8.2	8.2	8.1	7.5	5.7	3.4	2.9
14	3.1	3.9	6.8	8.2	8.0	8.4	8.3	7.5	6.7	5.2	2.6	2.3
15	2.2	2.9	5.4	6.9	6.9	7.6	7.4	6.2	4.9	3.9	1.8	1.6
16	1.6	2.2	3.8	5.6	5.7	6.3	6.2	4.7	3.5	2.8	1.7	1.4
17	1.3	2.0	3.0	4.5	4.7	5.2	4.9	3.5	2.7	2.3	1.4	1.1
18	1.0	1.4	2.7	3.7	4.1	5.0	4.2	3.2	2.6	2.0	0.8	0.9
19	0.9	1.0	2.4	3.5	3.9	4.4	3.9	3.1	2.6	1.7	0.7	0.8
20	0.6	0.9	2.1	3.5	3.4	4.1	3.7	3.0	2.5	1.4	0.5	0.5
21	0.1	0.4	1.5	3.3	3.4	3.8	3.6	2.8	2.0	1.0	0.1	0.1
22	0.0	0.0	1.4	3.2	3.5	3.6	3.6	2.8	1.7	0.9	0.0	0.0
23	0.1	0.0	1.6	3.0	3.2	3.3	3.4	2.7	1.6	0.9	0.0	0.3
Means	1.11	1.38	2.60	3.69	3.68	3.76	3.73	3.30	2.75	2.06	1.04	1.04

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.)

1901.

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	...	...	177	740	266	853	179	749	291	861	303	909	183	801	095	760	001	612	973	560	718	298	787	379
2	212	794	152	739	233	808	131	701	284	873	259	839	200	804	108	775	979	559	911	498	728	276	726	315	
3	244	802	182	742	197	765	172	761	297	896	238	803	200	804	107	764	975	567	876	470	689	290	710	297	
4	247	812	203	749	192	772	227	797	250	856	231	799	222	840	095	737	980	536	887	445	640	217	689	266	
5	185	748	224	789	185	762	196	740	270	857	186	787	159	799	087	705	988	565	850	389	711	248	672	240	
6	166	694	200	765	183	748	217	777	292	884	185	832	128	778	108	714	992	564	855	413	692	267	678	258	
7	207	728	201	757	199	755	252	824	315	892	187	805	122	754	152	763	938	527	799	341	684	254	750	349	
8	194	736	204	772	208	768	170	781	303	880	197	772	130	746	110	752	979	597	788	346	705	313	848	432	
9	217	763	224	789	189	757	200	792	346	923	171	746	117	733	120	787	046	669	727	311	737	319	804	384	
10	213	790	198	780	221	767	244	812	383	953	128	756	137	760	058	748	065	669	719	299	695	291	765	330	
11	244	804	188	777	148	713	234	830	283	851	162	746	173	805	030	690	986	573	711	303	737	331	772	330	
12	250	822	176	732	171	751	210	797	267	859	192	772	147	809	...	...	961	562	...	...	748	349	774	334
13	270	835	171	722	153	709	243	806	280	874	223	783	102	762	...	...	975	569	...	...	772	344	801	366
14	240	803	175	712	167	718	250	834	257	865	147	739	147	777	...	...	972	571	727	309	711	283	786	356
15	220	783	172	714	155	727	175	757	236	844	200	780	142	770	...	...	007	575	740	312	709	274	742	298
16	240	805	198	749	186	756	154	710	231	832	200	760	102	739	033	651	039	597	794	350	678	243	720	297	
17	255	859	...	...	202	750	141	704	299	871	190	746	065	710	055	654	982	586	791	371	676	213	713	295
18	273	867	...	...	170	742	147	734	331	901	180	740	051	728	...	...	982	564	796	390	694	262	726	318
19	287	886	232	788	205	703	165	764	316	900	173	760	046	744	...	...	966	550	801	385	713	293	755	327
20	303	854	182	740	183	729	169	761	266	858	232	836	027	725	067	714	998	592	808	356	697	289	754	305	
21	258	857	214	749	203	742	192	793	303	868	246	881	026	737	037	657	036	640	788	334	767	339	747	305	
22	267	856	241	787	160	693	188	808	242	843	223	848	053	762	043	668	022	640	777	335	759	339	741	299	
23	154	750	245	801	199	722	180	779	297	893	189	814	049	732	080	698	063	662	779	337	778	301	732	314	
24	212	780	227	780	091	612	276	822	255	856	179	761	142	792	097	720	054	638	783	343	737	270	788	363	
25	234	799	245	817	049	579	288	858	194	814	156	767	113	741	112	744	015	616	730	302	807	298	790	346	
26	190	770	...	...	125	630	295	877	264	865	143	778	132	743	073	703	031	615	725	285	750	315	731	320
27	221	813	...	...	137	647	322	897	247	843	153	757	115	719	061	641	025	588	723	305	775	359	709	289
28	207	770	301	883	179	666	270	826	240	863	172	773	135	734	101	664	040	622	758	330	...	...	597	193
29	210	756	...	...	193	695	274	854	237	882	230	846	119	727	112	665	016	612	729	311	...	...	659	246
30	157	737	...	...	140	710	290	862	290	922	180	788	115	757	058	671	002	608	727	319	742	324	684	285
31	171	729	...	...	202	753	...	...	325	931	...	...	097	757	053	693	...	717	297	...	...	759	351	...

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.

1901.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	66°..	66°.2	67°.2	66°.5	66°.5	68°.0	68°.5	70°.4	68°.2	67°.2	66°.9	67°.4
2	67°.0	67°.2	66°.7	66°.5	67°.3	66°.9	67°.9	70°.5	66°.9	67°.2	65°.6	67°.3
3	66°.0	66°.1	66°.4	67°.3	67°.7	66°.3	67°.9	70°.1	67°.4	67°.5	67°.8	67°.2
4	66°.3	65°.5	66°.9	66°.5	68°.0	66°.4	68°.5	69°.5	65°.9	66°.0	66°.8	66°.8
5	66°.2	66°.3	66°.8	65°.4	67°.2	67°.8	69°.4	68°.5	66°.8	65°.2	65°.1	66°.4
6	64°.7	66°.3	66°.3	66°.1	67°.4	69°.7	69°.8	68°.0	66°.6	66°.0	66°.7	66°.9
7	64°.4	65°.9	65°.9	66°.5	66°.8	68°.5	69°.1	68°.2	67°.3	65°.3	66°.5	67°.7
8	65°.3	66°.4	66°.1	68°.2	66°.8	66°.7	68°.4	69°.5	68°.5	66°.0	68°.1	67°.1
9	65°.5	66°.3	66°.4	67°.4	66°.8	66°.7	68°.4	70°.5	68°.7	67°.1	67°.0	66°.9
10	66°.8	67°.0	65°.5	66°.4	66°.5	68°.9	68°.7	71°.4	67°.9	66°.9	67°.6	66°.3
11	66°.1	67°.3	66°.3	67°.6	66°.4	67°.1	69°.1	70°.2	67°.2	67°.4	67°.5	66°.0
12	66°.6	65°.9	66°.9	67°.2	67°.4	66°.9	70°.3	...	67°.8	...	67°.8	66°.1
13	66°.3	65°.7	65°.9	66°.2	67°.5	66°.1	70°.2	...	67°.5	...	66°.6	66°.3
14	66°.2	65°.1	65°.7	67°.1	68°.1	67°.4	69°.0	...	67°.7	67°.0	66°.6	66°.5
15	66°.2	65°.3	66°.6	67°.0	68°.1	66°.9	68°.9	...	66°.4	66°.6	66°.3	65°.9
16	66°.3	65°.7	66°.5	65°.9	67°.8	66°.1	69°.3	68°.5	66°.0	65°.9	66°.3	66°.8
17	67°.9	...	65°.6	66°.2	66°.6	65°.9	69°.6	67°.7	67°.9	66°.9	65°.1	67°.0
18	67°.5	...	66°.6	67°.2	66°.5	66°.1	70°.9	...	67°.0	67°.5	66°.4	67°.4
19	67°.7	65°.9	63°.4	67°.7	67°.1	67°.2	71°.7	...	67°.1	67°.1	66°.9	66°.6
20	65°.7	66°.0	65°.5	67°.4	67°.4	67°.9	71°.7	69°.7	67°.5	65°.6	67°.4	65°.7
21	67°.7	65°.0	65°.2	67°.8	66°.3	69°.2	72°.2	68°.6	67°.9	65°.5	66°.6	66°.0
22	67°.3	65°.5	64°.9	68°.6	67°.8	68°.8	72°.1	68°.8	68°.5	66°.0	66°.9	66°.0
23	67°.6	65°.9	64°.5	67°.7	67°.6	68°.8	71°.1	68°.5	67°.7	66°.0	64°.5	67°.0
24	66°.4	65°.8	64°.4	65°.5	67°.8	67°.0	69°.8	68°.7	67°.1	66°.1	64°.9	66°.7
25	66°.3	66°.6	64°.8	66°.5	68°.6	68°.2	68°.9	69°.1	67°.8	66°.6	63°.1	65°.9
26	66°.9	...	63°.7	67°.0	67°.8	69°.2	68°.2	69°.0	67°.1	66°.1	66°.3	67°.3
27	67°.4	...	63°.9	66°.7	67°.6	67°.9	67°.9	66°.9	66°.2	67°.0	67°.1	66°.9
28	66°.2	67°.0	62°.9	65°.9	68°.7	67°.8	67°.7	66°.2	67°.0	66°.6	...	67°.6
29	65°.5		63°.6	66°.9	69°.6	68°.4	68°.1	65°.8	67°.6	67°.0	...	67°.2
30	66°.9		66°.5	66°.6	69°.1	68°.1	69°.5	68°.3	68°.0	67°.4	67°.0	67°.8
31	66°.0		65°.7		68°.0		70°.2	69°.4		66°.9		67°.4
Means	66°.43	66°.08	65°.59	66°.85	67°.51	67°.56	69°.45	68°.88	67°.37	66°.54	66°.48	66°.78

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 000001 of the whole Horizontal Force. The letters u and c indicate respectively values uncorrected for, and corrected for temperature.)

Hour, Greenwich Civil Time.	1901.																							
	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
Midnight.	32	49	53	75	78	96	151	170	110	124	127	141	123	140	132	153	145	157	119	133	56	68	28	47
1 ^h	32	49	53	75	77	93	149	166	109	123	120	134	118	135	130	149	139	151	118	132	56	68	30	46
2	33	47	60	77	74	85	148	162	108	120	120	132	111	126	125	141	135	147	115	127	58	67	35	47
3	43	55	70	82	75	81	151	161	107	116	118	130	112	127	120	134	129	139	113	125	69	76	43	52
4	57	64	81	91	82	82	153	158	106	113	117	126	119	131	116	128	129	139	122	131	80	85	57	64
5	71	76	89	94	94	91	159	159	101	106	114	121	113	123	108	117	123	131	130	135	87	89	64	66
6	79	81	95	98	98	91	161	159	88	90	95	100	89	96	89	96	111	119	129	131	85	85	65	67
7	76	78	87	87	95	88	151	149	66	66	73	75	62	67	61	65	89	94	113	113	78	78	63	63
8	67	69	72	75	79	74	123	118	39	36	45	47	37	39	27	29	51	54	78	78	57	59	56	56
9	42	47	44	49	44	39	71	69	20	17	17	17	11	11	2	2	15	18	35	35	25	27	35	35
10	16	16	13	13	14	9	18	16	3	0	0	0	0	0	0	0	0	0	7	7	0	0	8	8
11	5	5	0	0	0	0	0	0	0	0	2	4	9	11	18	20	17	17	0	0	4	1	0	0
Noon.	0	0	4	4	7	7	22	24	25	27	24	29	24	29	53	55	58	61	25	25	12	7	4	1
13 ^h	10	10	25	25	36	38	59	69	51	56	56	61	53	60	89	93	96	99	59	61	31	26	22	22
14	26	33	48	53	59	65	95	107	76	85	91	98	81	88	112	121	116	119	83	88	41	41	26	30
15	26	38	46	58	72	81	124	136	99	111	119	128	101	111	123	135	121	126	88	97	40	47	24	31
16	22	39	45	60	70	81	141	155	124	136	135	147	113	125	124	136	125	130	93	102	43	52	27	36
17	21	40	44	61	69	80	158	172	144	156	155	167	128	143	134	148	127	135	102	114	49	63	34	48
18	21	43	46	68	73	84	161	175	158	170	169	181	148	163	154	170	143	151	114	128	56	73	35	51
19	26	48	53	75	77	91	163	175	159	171	175	187	160	177	168	184	158	166	119	133	61	78	30	49
20	26	45	55	79	69	85	162	174	155	167	171	183	157	174	169	185	164	174	114	128	62	76	25	44
21	24	41	46	68	63	81	158	172	147	156	158	170	142	162	152	171	159	169	113	127	60	74	25	44
22	27	41	51	73	63	81	150	164	130	142	142	154	130	150	137	156	158	168	108	122	58	72	27	46
23	28	42	57	79	70	88	151	168	118	130	133	147	122	142	131	150	153	163	108	122	58	72	30	51
Means corrected for Temperature.	44.0	63.3	70.5	132.4	100.8	111.6	105.4	114.1	117.8	99.7	57.7	41.8												

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

Hour, Greenwich Civil Time.	1901.																							
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.											
Midnight.	66°7	66°5	66°1	67°3	67°8	67°8	69°7	69°3	67°6	66°8	66°7	67°1	67°46											
1 ^h	66.7	66.5	66.0	67.2	67.8	67.8	69.7	69.2	67.6	66.8	66.7	67.1	67.43											
2	66.6	66.3	65.8	67.1	67.7	67.7	69.6	69.1	67.6	66.7	66.6	66.9	67.31											
3	66.5	66.1	65.6	66.9	67.6	67.7	69.6	69.0	67.5	66.7	66.7	66.8	67.21											
4	66.3	66.0	65.3	66.7	67.5	67.6	69.5	69.9	67.5	66.6	66.4	66.7	67.08											
5	66.2	65.8	65.2	66.5	67.4	67.5	69.4	68.8	67.4	66.4	66.3	66.5	66.95											
6	66.1	65.7	65.0	66.4	67.3	67.4	69.3	68.7	67.4	66.3	66.2	66.5	66.86											
7	66.1	65.6	65.0	66.4	67.2	67.3	69.2	68.6	67.3	66.2	66.2	66.2	66.4											
8	66.1	65.7	65.1	66.3	67.1	67.3	69.1	68.5	67.2	66.2	66.2	66.3	66.78											
9	66.2	65.8	65.1	66.4	67.1	67.2	69.0	68.4	67.2	66.2	66.3	66.4	66.77											
10	66.0	65.6	65.1	66.4	67.1	67.2	69.0	68.4	67.1	66.2	66.2	66.4	66.72											
11	66.0	65.6	65.3	66.5	67.2	67.3	69.1	68.5	67.1	66.2	66.2	66.1	66.4											
Noon.	66.0	65.6	65.3	66.6	67.3	67.4	69.2	68.6	67.2	66.3	66.2	66.0	66.80											
13 ^h	66.0	65.6	65.4	66.9	67.4	67.4	69.3	68.8	67.2	66.4	66.2	66.0	66.87											
14	66.3	65.8	65.6	67.0	67.6	67.5	69.3	68.8	67.2	66.4	66.2	66.0	67.03											
15	66.5	66.1	65.7	67.0	67.7	67.6	69.4	68.9	67.3	66.6	66.5	66.7	67.17											
16	66.7	66.2	65.8	67.1	67.7	67.7	69.5	68.9	67.3	66.6	66.6	66.8	67.24											
17	66.8	66.3	65.8	67.1	67.7	67.7	69.6	69.0	67.3	66.7	66.8	66.8	67.32											
18	66.9	66.5	65.8	67.1	67.7	67.7	69.6	69.1	67.4	66.8	66.8	66.9	67.38											
19	66.9	66.5	65.9	67.0	67																			

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 $\cdot 00001$ of the whole Vertical Force. The letters u and c indicate respectively values uncorrected for, and corrected for temperature.)

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	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	206	458	155	409	140	392	069	331	071	337	218	459	273	502	395	587	314	559	307	561	168	426	060	314		
2	234	475	174	407	129	387	068	324	078	330	213	471	244	491	395	585	293	561	300	554	153	421	079	337		
3	220	491	163	425	124	386	096	335	106	351	210	478	266	516	389	587	271	531	312	564	152	391	077	329		
4	216	470	157	428	142	389	102	364	122	357	217	483	291	520	382	591	252	544	298	577	162	395	079	343		
5	215	456	141	397	145	403	090	363	112	366	238	481	323	535	359	594	253	526	266	541	115	392	076	342		
6	187	472	149	401	121	385	092	346	113	360	270	477	351	545	335	576	251	532	259	517	110	351	078	332		
7	144	427	141	407	110	370	108	364	103	348	244	481	345	565	323	560	280	511	229	476	125	377	078	317		
8	148	408	140	390	121	383	139	378	113	352	205	484	336	565	353	560	295	521	222	463	127	370	079	326		
9	150	404	145	401	120	376	134	379	118	374	197	476	333	564	386	574	301	523	234	473	127	379	084	340		
10	180	427	150	395	092	371	108	368	117	373	243	476	324	546	399	564	313	552	229	489	135	366	062	337		
11	173	427	172	403	110	364	105	340	114	382	196	471	333	549	396	592	303	561	227	466	136	377	048	300		
12	176	428	137	397	119	371	108	353	137	380	192	471	344	536	367	576	302	549	237	472	138	381	046	302		
13	174	438	123	379	115	390	084	344	143	395	170	468	372	568	341	574	301	557	230	467	119	390	053	324		
14	185	437	104	375	103	371	094	335	155	388	182	436	343	572	349	563	301	553	225	451	116	376	048	308		
15	162	428	096	358	109	356	115	352	172	394	195	466	336	558	361	577	284	561	225	481	092	365	041	309		
16	159	415	089	343	111	367	085	349	159	417	175	462	346	562	355	590	258	541	201	465	080	346	036	286		
17	212	453	095	347	099	374	074	326	130	386	178	467	364	567	337	584	282	523	217	464	054	341	030	269		
18	196	429	100	354	113	373	090	335	111	379	162	439	392	567	339	570	288	552	227	462	054	314	035	276		
19	202	454	083	345	044	327	096	341	137	389	189	434	415	575	368	571	277	535	236	488	060	303	027	285		
20	145	443	089	349	069	331	096	339	142	394	197	440	417	577	375	582	273	514	214	491	095	330	014	272		
21	215	454	061	344	070	341	091	336	133	395	224	438	419	571	357	586	287	528	191	466	097	349	006	262		
22	224	480	069	331	066	334	110	339	162	393	242	464	417	579	344	566	303	532	182	440	096	339	001	255		
23	245	480	085	347	055	326	117	367	154	399	268	499	391	583	340	566	308	553	185	435	066	360	015	258		
24	215	469	089	368	090	375	088	377	149	396	242	504	361	575	346	570	303	561	180	453	048	308	012	272		
25	205	471	106	364	089	353	087	353	173	391	254	493	341	565	357	571	310	560	182	432	014	332	001	278		
26	218	459	124	353	061	348	090	354	170	422	260	478	332	575	368	594	313	571	169	412	042	281	009	259		
27	232	482	127	383	040	327	075	333	168	418	255	498	333	576	308	581	292	565	162	399	059	306	015	265		
28	199	478	122	372	010	312	079	352	195	421	248	491	333	585	285	574	291	551	170	417	059	304	035	272		
29	163	444			007	290	082	332	201	410	252	485	345	580	263	563	310	555	181	418	055	305	051	290		
30	175	420			054	297	085	349	213	429	270	509	370	577	289	526	321	560	196	439	056	301	059	300		
31	159	419			055	332		218	457			388	584	317	535			178	444							

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.

1901.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	67°3	67°2	67°3	66°8	66°6	67°8	68°4	70°1	67°6	67°2	67°0	67°2
2	67°8	68°2	67°0	67°1	67°3	67°0	67°5	70°2	66°5	67°2	66°5	67°0
3	66°4	66°8	66°8	67°9	67°6	66°5	67°4	69°8	66°9	67°3	67°9	67°3
4	67°2	66°4	67°5	66°8	68°1	66°6	68°4	69°3	65°4	66°0	68°2	66°7
5	67°8	67°1	67°0	66°3	67°2	67°7	69°2	68°1	66°3	66°2	66°1	66°6
6	65°7	67°3	66°7	67°2	67°5	69°4	70°0	67°8	65°9	67°0	67°8	67°2
7	65°8	66°6	66°9	67°1	67°6	68°0	68°8	68°0	68°3	67°5	67°3	67°9
8	66°9	67°4	66°8	67°9	67°9	66°0	68°4	69°4	68°5	67°8	67°7	67°5
9	67°2	67°1	67°1	67°6	67°1	66°0	68°3	70°3	68°7	67°9	67°3	67°1
10	67°5	67°6	66°0	66°9	67°1	68°2	68°7	71°4	67°9	66°9	68°3	66°2
11	67°2	68°3	67°2	68°1	66°5	66°2	69°0	69°9	67°0	67°9	67°8	67°3
12	67°3	66°9	67°3	67°6	67°7	66°0	70°1	69°3	67°5	68°1	67°7	67°1
13	66°7	67°1	66°2	66°9	67°3	65°1	69°9	68°2	67°1	68°0	66°4	66°4
14	67°3	66°4	66°5	67°8	68°2	67°2	68°4	69°1	67°3	68°5	66°9	66°9
15	66°6	66°8	67°5	68°0	68°7	66°4	68°7	69°0	66°1	67°1	66°3	66°5
16	67°1	67°2	67°1	66°7	67°0	65°6	69°0	68°1	65°8	66°7	66°6	67°4
17	67°8	67°3	66°2	67°3	67°1	65°5	69°6	67°5	67°8	67°5	65°6	67°9
18	68°2	67°2	66°9	67°6	66°5	66°1	70°9	68°3	66°7	68°1	66°9	67°8
19	67°3	66°8	65°8	67°6	67°3	67°6	71°6	69°6	67°0	67°3	67°7	67°0
20	65°1	66°9	66°8	67°7	67°3	67°7	71°6	69°4	67°8	66°1	68°1	67°0
21	67°9	65°8	66°4	67°6	66°8	69°1	72°0	68°4	67°8	66°2	67°3	67°1
22	67°1	66°8	66°5	68°4	68°3	68°7	71°5	68°7	68°4	67°0	67°7	67°2
23	68°1	66°8	66°4	67°4	67°6	68°3	70°1	68°5	67°6	67°4	65°3	67°7
24	67°2	66°0	65°7	65°5	67°5	66°8	69°1	68°6	67°0	66°3	66°9	66°9
25	66°6	67°0	66°7	66°6	68°9	67°9	68°6	69°1	67°4	67°4	64°2	66°1
26	67°8	68°4	65°6	66°7	67°3	68°9	67°7	68°5	67°0	67°7	67°9	67°4
27	67°4	67°1	65°6	67°0	67°4	67°7	67°7	66°3	66°3	68°0	67°5	67°4
28	66°0	67°4	64°9	66°3	68°5	67°7	67°3	65°5	66°9	67°5	67°6	68°0
29	65°9		65°8	67°4	69°3	68.2	68°1	65°0	67°6	68°0	67°4	67°9
30	67°6		67.7	66°7	69°0	67°9	69°4	68°0	67°9	67°7	67°6	67°8
31	66°9		66°1		67°9			69°9	68°9		66°6	...
Means	67°05	67°07	66°58	67°22	67°62	67°26	69°20	68°65	67°20	67°29	67°12	67°18

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.)

Hour, Greenwich Civil Time.	1901.																							
	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
Midnight.	33	22	22	9	38	26	47	40	61	52	36	26	37	30	32	19	29	18	27	16	17	7	12	1
1 ^h	28	17	17	7	30	22	42	35	58	49	32	22	34	27	30	19	27	19	23	12	13	5	9	0
2	20	11	8	0	24	18	37	35	53	46	30	23	31	26	26	17	24	16	20	9	10	4	4	0
3	17	10	7	3	21	19	33	33	51	46	28	23	30	28	26	19	24	18	19	11	7	3	3	1
4	14	9	4	2	18	21	31	35	51	50	30	27	32	32	26	21	22	18	18	12	5	3	2	4
5	9	8	3	5	15	22	29	35	51	53	31	30	32	34	28	25	24	22	16	12	3	3	1	5
6	7	6	1	5	16	27	30	40	52	56	30	31	30	34	29	35	27	31	25	25	17	17	4	6
7	11	10	5	9	22	33	37	47	49	55	31	34	29	35	27	31	25	25	17	17	4	6	3	11
8	12	11	10	14	26	35	39	49	42	50	25	30	25	33	23	29	20	22	20	20	7	9	4	12
9	8	7	9	11	18	25	26	36	28	36	16	21	19	29	12	20	11	15	16	16	7	9	3	11
10	2 ^h	3	2	8	7	14	14	22	11	19	4	9	12	20	4	10	5	7	6	6	3	7	1	9
11	0	1	0	4	0	3	5	11	0	2	0	1	1	5	0	2	0	2	0	0	0	6	3	11
Noon.	1	0	1	5	0	0	0	0	5	0	3	0	0	0	3	0	2	0	2	0	3	11	3	11
13 ^h	3	0	3	5	9	7	9	7	20	13	13	8	11	9	13	8	9	7	9	7	7	13	10	16
14	20	11	14	12	22	18	28	26	42	35	25	20	27	25	25	18	16	12	19	15	16	16	18	20
15	32	14	22	18	30	30	39	41	50	43	32	25	37	32	33	26	25	21	26	20	20	14	22	20
16	37	17	24	18	34	34	40	42	59	52	38	31	45	38	40	31	30	24	29	21	20	10	24	20
17	47	27	21	13	34	32	45	45	65	58	41	31	52	45	41	30	31	25	25	14	23	8	26	17
18	47	27	28	18	32	28	46	46	69	62	44	34	52	43	39	28	29	23	25	14	19	4	24	13
19	44	26	30	20	40	34	46	46	69	62	44	34	49	40	35	22	32	26	24	13	18	3	23	10
20	43	28	28	18	44	36	47	47	65	58	42	32	47	38	34	21	31	23	24	13	18	5	22	9
21	37	26	28	18	44	34	49	47	63	58	40	30	44	33	33	20	28	20	22	11	15	2	20	7
22	33	24	24	16	42	30	50	48	64	57	42	32	44	33	33	20	28	20	22	11	13	0	20	7
23	34	25	25	15	40	28	49	44	66	59	41	31	43	34	32	19	29	21	22	14	14	1	16	3
Means corrected for Temperature.	{ 14.2		10.5		24.0		35.7		44.6		24.4		29.3		20.3		17.8		12.4		6.4		9.3	

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

Hour, Greenwich Civil Time.	1901.															
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.			
Midnight.	67°.2	67°.5	67°.1	67°.6	67°.9	67°.5	67°.4	67°.0	67°.5	67°.5	67°.4	67°.6	67°.77			
1 ^h	67°.2	67°.4	66°.9	67°.6	67°.9	67°.5	67°.4	68°.9	67°.4	67°.5	67°.3	67°.5	67°.71			
2	67°.1	67°.3	66°.8	67°.4	67°.8	67°.4	67°.3	69°.3	68°.8	67°.4	67°.2	67°.3	67°.61			
3	67°.0	67°.1	66°.6	67°.3	67°.7	67°.3	67°.2	69°.2	68°.7	67°.3	67°.1	67°.2	67°.49			
4	66°.9	67°.0	66°.4	67°.1	67°.5	67°.2	67°.1	68°.6	67°.2	67°.3	67°.0	67°.0	67°.36			
5	66°.7	66°.8	66°.2	67°.0	67°.4	67°.1	67°.0	68°.5	67°.1	67°.2	66°.9	66°.9	67°.23			
6	66°.7	66°.7	66°.0	66°.8	67°.3	67°.0	67°.0	68°.9	68°.3	67°.0	67°.1	66°.8	66°.8	67°.12		
7	66°.7	66°.7	66°.0	66°.8	67°.2	66°.9	66°.8	68°.8	68°.2	67°.0	67°.0	66°.8	66°.7	67°.07		
8	66°.7	66°.7	66°.1	66°.8	67°.1	67°.0	66°.8	68°.7	68°.1	66°.9	67°.0	66°.8	66°.7	67°.03		
9	66°.7	66°.8	66°.2	66°.8	67°.1	67°.0	66°.8	68°.6	68°.0	66°.8	67°.0	66°.8	66°.7	67°.02		
10	66°.6	66°.6	66°.2	66°.9	67°.1	66°.8	66°.7	68°.7	68°.1	66°.9	67°.0	66°.7	66°.7	67°.03		
11	66°.6	66°.7	66°.4	67°.0	67°.4	67°.0	67°.0	68°.9	68°.3	66°.9	67°.0	66°.6	66°.7	67°.12		
Noon.	66°.7	66°.7	66°.5	67°.3	67°.7	67°.2	67°.1	68°.5	67°.1	67°.1	66°.5	66°.7	67°.26			
13	66°.8	66°.8	66°.6	67°.4	67°.8	67°.3	67°.2	69°.2	68°.6	67°.1	67°.1	66°.6	66°.8	67°.34		
14	67°.1	67°.0	66°.7	67°.4	67°.8	67°.3	67°.2	69°.2	68°.7	67°.2	67°.2	66°.9	67°.0	67°.46		
15	67°.5	67°.1	66°.5	67°.2	67°.8	67°.4	67°.3	69°.3	68°.7	67°.2	67°.3	67°.2	67°.53			
16	67°.6	67°.2	66°.5	67°.2	67°.8	67°.4	67°.4	69°.4	68°.8	67°.3	67°.4	67°.3	67°.61			
17	67°.6	67°.3	66°.6	67°.3	67°.8	67°.5	67°.5	69°.4	68°.9	67°.3	67°.5	67°.6	67°.69			
18	67°.6	67°.4	66°.7	67°.3	67°.8	67°.5	67°.5	69°.5	68°.9	67°.3	67°.5	67°.6	67°.73			
19	67°.5	67°.4	66°.8	67°.3	67°.8	67°.5	67°.5	69°.5	69°.0	67°.3	67°.5	67°.6	67°.74			
20	67°.4	67°.4	66°.9	67°.3	67°.8	67°.5	67°.5	69°.5	69°.0	67°.4	67°.5	67°.5	67°.74			
21	67°.2	67°.4	67°.0	67°.4	67°.7	67°.5	67°.5	69°.6	69°.0	67°.4	67°.5	67°.7	67°.74			
22	67°.1	67°.3	67°.1	67°.4	67°.8	67°.5	67°.5	69°.6	69°.0	67°.4	67°.5	67°.7	67°.74			
23	67°.1	67°.4	67°.1	67°.5	67°.8	67°.5	67°.5	69°.5	69°.0	67°.4	67°.4					

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, 1901.	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).	DECLINATION diminished by 16° and expressed as Westerly Force	HORIZONTAL FORCE (diminished by a Constant)	VERTICAL FORCE (diminished by a Constant)
						in terms of GAUSS'S METRICAL UNIT.
January.....	16. 27.9	793	448	1500	1466	1960
February.....	16. 27.1	765	378	1457	1414	1654
March.....	16. 27.6	725	358	1484	1340	1566
April.....	16. 27.5	793	349	1478	1466	1527
May.....	16. 25.7	875	387	1382	1617	1693
June.....	16. 26.0	791	472	1398	1462	2065
July.....	16. 26.0	760	559	1398	1405	2446
August.....	16. 25.3	709	574	1360	1310	2511
September.....	16. 25.6	595	545	1376	1100	2385
October.....	16. 24.6	357	473	1322	660	2070
November.....	16. 24.5	293	352	1317	541	1540
December.....	16. 23.9	316	298	1285	584	1304
Means.....	16. 26.0	.....	.....	1396	.....	.....
Number of Column.....	1	2	3	4	5	6

The units in columns 2 and 3 are $\frac{1}{100000}$ of the whole Horizontal and Vertical Forces respectively; in columns 4, 5, and 6 the unit is $\frac{1}{100000}$ of the Millimètre-Milligramme-Second Unit, or $\frac{1}{100000}$ of the Centimètre-Gramme-Second (C.G.S.) Unit, in terms of which units the values of the whole Horizontal Force (applicable to columns 4 and 5) are 1.8481 and 0.18481 respectively for the year, and of whole Vertical Force (applicable to column 6) are 4.3754 and 0.43754 respectively for the year.

HORIZONTAL FORCE.—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 1901.

(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 GAUSS'S METRICAL UNIT.		
Midnight.	1°58	107.9	19.9	84.9	199.4	87.1
1 ^h	1°63	105.3	17.2	87.6	194.6	75.3
2	1°73	101.7	14.8	93.0	188.0	64.8
3	1°78	101.7	15.5	95.7	188.0	67.8
4	1°64	104.5	17.2	88.2	193.1	75.3
5	1°24	104.2	18.9	66.7	192.6	82.7
6	0°81	96.3	20.8	43.5	178.0	91.0
7	0°30	80.5	23.8	16.1	148.8	104.1
8	0°00	56.4	23.9	0.0	104.2	104.6
9	0°41	25.7	17.4	22.0	47.5	76.1
10	1°82	0.9	8.9	97.8	1.7	38.9
11	3°78	0.0	1.7	203.2	0.0	7.4
Noon.	5°41	17.6	0.0	290.8	32.5	0.0
13 ^h	6°13	46.9	6.0	329.5	86.7	26.2
14	5°78	72.5	16.7	310.7	134.0	73.1
15	4°67	86.8	23.0	251.1	160.4	100.6
16	3°65	95.1	25.9	196.2	175.8	113.3
17	2°91	105.8	26.4	156.4	195.5	115.5
18	2°49	116.6	26.0	133.9	215.5	113.8
19	2°27	123.0	25.7	122.0	227.3	112.4
20	2°04	121.4	25.0	109.7	224.4	109.4
21	1°70	114.8	23.2	91.4	212.2	101.5
22	1°58	109.3	22.5	84.9	202.0	98.4
23	1°54	108.0	22.2	82.8	199.6	97.1
Means . . .	2°37	83.5	18.4	127.4	154.2	80.7
Number of Column .	1	2	3	4	5	6

The units in columns 2 and 3 are 'ooooo¹ of the whole Horizontal and Vertical Forces respectively; in columns 4, 5, and 6 the unit is 'ooooo¹ of the Millinétre-Milligramme-Second Unit, or 'oooooo¹ of the Centimètre-Gramme-Second (C.G.S.) Unit, in terms of which units the values of whole Horizontal Force (applicable to columns 4 and 5) are 1°8481 and 0°18481 respectively, and of whole Vertical Force (applicable to column 6) are 4°3754 and 0°43754 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 REGISTER.

(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.)

Day of Month.	1901.																							
	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	5.0	...	3.2	102	6.1	122	11.0	172	7.4	203	9.8	189	9.2	202	9.0	187	10.6	179	6.7	263	5.2	177	2.9	130
2	5.7	168	8.7	235	6.1	123	12.4	183	7.3	209	9.2	215	7.0	207	9.2	268	9.6	273	7.3	232	4.5	221	6.8	236
3	4.8	90	4.3	82	7.6	114	12.0	318	8.9	162	9.5	221	8.3	125	12.0	262	11.5	305	7.6	222	6.2	160	3.3	41
4	3.4	75	3.1	19	5.2	118	10.5	263	6.7	179	9.2	220	9.9	210	9.0	210	10.5	281	6.9	182	6.3	220	3.4	76
5	6.5	223	4.0	80	6.0	85	9.9	239	7.7	163	8.5	274	11.0	197	9.1	170	8.0	260	5.6	183	6.6	192	6.2	190
6	5.0	119	4.7	142	7.3	133	10.6	296	7.8	217	9.5	348	9.1	210	7.3	242	8.9	207	5.5	145	3.8	158	2.7	43
7	4.0	34	3.0	113	7.7	125	11.1	220	9.5	195	12.2	273	10.6	175	9.2	254	7.3	140	6.9	94	3.9	156	3.6	128
8	3.1	98	1.9	63	7.3	114	10.0	249	6.5	176	10.0	132	9.3	192	9.5	226	5.7	197	14.9	212	5.0	138	3.6	85
9	3.9	79	2.6	73	7.8	120	8.2	249	7.5	138	7.6	203	9.5	164	8.2	233	5.6	192	15.6	277	6.1	120	4.1	93
10	2.7	77	2.8	30	6.2	104	10.5	312	16.2	257	8.9	194	8.7	159	8.1	171	17.0	308	5.4	226	4.0	98	2.2	68
11	2.6	97	3.4	89	6.9	167	8.9	253	9.8	195	5.5	235	8.3	335	9.1	246	9.2	190	6.9	162	5.8	110	2.6	80
12	2.6	78	7.7	231	5.6	137	8.9	206	4.5	178	8.3	182	9.8	335	...	...	8.4	283	...	...	4.7	118	2.5	94
13	2.0	102	7.0	106	9.0	156	6.9	212	4.2	174	8.7	222	7.4	207	...	...	8.8	220	...	...	3.8	73	2.2	82
14	2.7	97	4.4	171	5.0	115	7.6	138	5.1	166	15.9	230	6.5	195	...	...	9.2	180	6.1	159	4.0	193	2.2	71
15	2.4	145	4.1	135	6.7	164	9.5	301	9.4	155	11.3	129	8.7	209	...	...	8.6	158	6.9	190	3.1	112	2.5	87
16	4.4	7	3.0	137	7.5	135	10.2	202	7.2	216	11.5	167	8.2	148	7.8	281	8.0	189	7.5	195	4.0	127	2.5	104
17	4.4	117	...	...	6.9	60	9.3	163	9.4	244	12.2	295	12.8	272	8.1	201	9.9	257	6.1	120	3.1	120	2.3	80
18	3.1	68	...	...	11.0	125	10.2	239	9.7	187	9.5	214	9.3	231	...	...	6.8	286	6.8	187	2.8	93	2.6	80
19	4.6	111	11.5	238	8.8	185	9.1	257	9.5	232	10.2	207	10.0	368	...	...	6.7	174	6.7	184	4.4	234	2.6	41
20	5.3	115	5.3	137	10.0	148	9.2	212	10.8	264	8.9	335	10.2	293	8.9	190	5.2	140	5.6	183	4.5	110	2.6	101
21	5.1	96	4.8	144	7.1	129	9.6	143	9.7	226	12.4	194	8.0	256	8.8	276	7.6	140	5.9	140	2.5	86	3.2	68
22	7.6	247	12.6	223	9.0	180	10.8	195	10.8	235	7.1	231	8.3	163	7.9	207	5.2	180	5.3	125	3.5	33	2.6	8
23	6.4	219	9.5	201	10.1	199	7.6	195	11.5	205	8.3	155	8.0	200	9.1	171	5.4	152	4.5	112	3.3	24	2.6	65
24	3.9	155	6.8	102	20.3	510	6.6	137	8.1	214	7.1	179	9.8	180	6.3	149	6.2	162	4.6	147	3.4	99	4.8	53
25	3.9	123	4.1	135	7.5	190	6.5	119	8.7	218	8.1	255	10.2	207	7.2	249	6.7	137	8.2	170	3.0	71	2.8	58
26	4.0	120	...	...	7.3	135	7.1	247	9.1	218	9.3	185	6.4	174	10.0	168	7.3	165	4.0	108	3.3	109	3.8	121
27	3.5	90	...	...	6.7	145	8.4	78	9.4	159	6.3	220	7.8	237	7.0	192	7.2	171	5.2	163	2.6	60	4.6	170
28	3.2	94	3.8	44	8.2	122	5.1	114	10.5	197	9.8	259	7.8	165	7.7	215	5.9	182	6.2	149	...	...	8.0	383
29	3.6	84	...	...	11.5	192	5.6	139	11.9	295	10.7	185	9.4	172	6.2	232	8.3	175	4.8	118	...	...	5.1	114
30	4.4	132	...	...	10.0	180	7.3	206	11.0	167	10.4	227	7.4	149	7.3	206	8.2	230	5.3	137	3.1	80	3.0	112
31	4.3	51	...	...	10.2	172	...	11.8	288	...	8.2	183	10.4	250	...	...	4.8	139	...	...	2.9	110	...	...
Means . . .	4.1	110	5.3	126	8.1	152	9.0	209	9.0	204	9.5	219	8.9	210	8.5	218	8.1	204	6.7	170	4.2	125	3.4	102

The mean of the twelve monthly values is, for Declination 7.07, and for Horizontal Force 170.8.

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, 1901.	Difference between the Greatest and Least of the 24 Hourly Values.			Sums of the 24 Hourly Deviations from the Mean Value.		
	Declination.	Horizontal Force.	Vertical Force.	Declination.	Horizontal Force.	Vertical Force.
January	3.2	81	28	15.4	360	194
February	4.1	98	20	22.3	495	129
March	7.2	96	36	37.1	535	192
April	8.5	175	49	38.9	1052	235
May	8.2	171	62	41.7	1058	325
June	8.4	187	34	48.4	1145	187
July	8.3	177	45	44.1	1098	191
August	8.1	185	31	40.7	1106	144
September	7.5	174	26	37.6	961	130
October	5.7	135	21	29.7	812	91
November	3.4	89	16	18.3	518	79
December	2.9	67	20	12.9	342	120
Means	6.29	136.3	32.3	32.26	790.2	168.1

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 .00001 of the whole Horizontal and Vertical Forces respectively.

Month, 1901.	m	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4
DECLINATION WEST.									
January.....	1.11	- 0.76	- 0.21	+ 0.22	+ 0.76	- 0.31	- 0.21	+ 0.13	+ 0.22
February.....	1.38	- 1.07	- 0.46	+ 0.32	+ 0.94	- 0.47	- 0.20	+ 0.12	+ 0.17
March.....	2.60	- 1.56	- 1.20	+ 0.93	+ 1.32	- 0.80	- 0.62	+ 0.37	+ 0.24
April.....	3.69	- 1.14	- 1.68	+ 1.06	+ 1.66	- 0.81	- 0.80	+ 0.31	+ 0.21
May.....	3.68	- 1.26	- 1.97	+ 1.30	+ 1.39	- 0.73	- 0.46	+ 0.23	+ 0.06
June.....	3.76	- 1.47	- 2.50	+ 1.23	+ 1.25	- 0.67	- 0.37	+ 0.10	+ 0.04
July.....	3.73	- 1.37	- 2.24	+ 1.42	+ 1.35	- 0.63	- 0.39	+ 0.05	+ 0.04
August.....	3.30	- 1.70	- 1.62	+ 1.60	+ 0.95	- 0.77	- 0.27	+ 0.09	+ 0.05
September.....	2.75	- 1.76	- 1.21	+ 1.39	+ 0.88	- 0.98	- 0.27	+ 0.33	+ 0.14
October.....	2.06	- 1.33	- 0.70	+ 0.74	+ 1.07	- 0.78	- 0.40	+ 0.37	+ 0.14
November.....	1.04	- 0.98	- 0.28	+ 0.44	+ 0.60	- 0.44	- 0.06	+ 0.23	+ 0.06
December.....	1.04	- 0.70	- 0.09	+ 0.30	+ 0.53	- 0.30	- 0.03	+ 0.16	+ 0.12
For the Year.....	2.37	- 1.26	- 1.18	+ 0.92	+ 1.06	- 0.64	- 0.34	+ 0.21	+ 0.12
HORIZONTAL FORCE.									
January.....	44.0	+ 13.8	+ 13.0	- 19.4	+ 1.4	+ 7.5	- 6.5	- 0.9	+ 4.0
February.....	63.3	+ 26.8	+ 6.2	- 20.9	+ 5.5	+ 6.8	- 9.6	- 2.0	+ 5.4
March.....	70.5	+ 28.8	- 4.8	- 18.9	+ 9.6	+ 11.5	- 9.8	0.0	+ 7.7
April.....	132.4	+ 58.4	- 18.3	- 36.3	+ 15.7	+ 14.6	- 12.9	- 0.7	+ 9.2
May.....	100.8	+ 50.9	- 44.0	- 27.2	+ 15.4	- 1.0	- 4.7	+ 1.3	+ 3.0
June.....	111.6	+ 55.6	- 46.2	- 28.9	+ 17.4	- 0.5	- 7.0	+ 0.9	+ 3.7
July.....	105.4	+ 57.1	- 39.2	- 23.6	+ 15.8	- 5.5	- 7.3	+ 2.5	+ 3.0
August.....	114.1	+ 53.8	- 47.4	- 14.7	+ 22.9	- 8.3	- 10.7	+ 3.9	+ 8.1
September.....	117.8	+ 54.6	- 32.8	- 13.9	+ 19.7	- 4.8	- 18.2	+ 4.0	+ 8.7
October.....	99.7	+ 46.9	- 9.2	- 25.4	+ 16.2	+ 4.3	- 13.4	+ 3.9	+ 9.2
November.....	57.7	+ 28.4	+ 0.6	- 20.9	+ 5.3	+ 1.6	- 9.1	+ 1.7	+ 4.3
December.....	41.8	+ 16.4	+ 6.0	- 16.4	+ 2.8	+ 4.9	- 5.8	+ 0.9	+ 2.7
For the Year.....	83.5	+ 41.0	- 18.0	- 22.2	+ 12.3	+ 2.6	- 9.6	+ 1.3	+ 5.8
VERTICAL FORCE.									
January.....	14.2	+ 7.8	- 8.8	- 3.6	- 2.5	+ 2.8	+ 0.3	- 0.2	0.0
February.....	10.5	+ 0.2	- 6.4	- 2.6	- 3.1	+ 2.4	- 1.3	- 1.5	+ 0.3
March.....	24.0	+ 5.7	- 4.0	- 8.7	- 3.2	+ 6.2	- 2.4	- 3.3	+ 1.4
April.....	35.7	+ 10.3	- 3.5	- 11.1	- 3.8	+ 8.1	- 1.8	- 4.0	+ 0.7
May.....	44.6	+ 17.1	- 4.9	- 15.3	- 0.7	+ 7.7	- 3.4	- 1.7	+ 1.3
June.....	24.4	+ 7.9	- 2.6	- 9.6	- 0.8	+ 4.6	- 2.9	- 1.2	+ 0.8
July.....	29.3	+ 7.1	- 4.0	- 11.2	- 0.3	+ 5.7	- 0.4	- 1.9	- 0.6
August.....	20.3	+ 3.0	- 0.6	- 9.2	- 1.3	+ 6.0	- 2.2	- 1.0	+ 0.5
September.....	17.8	+ 5.1	- 1.7	- 7.3	- 0.1	+ 3.7	- 1.5	- 0.5	+ 0.8
October.....	12.4	+ 1.2	- 0.9	- 3.6	- 0.9	+ 5.0	- 1.7	- 2.0	+ 1.2
November.....	6.4	- 4.4	- 0.9	- 1.2	- 1.9	+ 1.3	- 0.7	- 0.5	+ 1.7
December.....	9.3	- 6.8	- 4.2	- 1.9	- 0.9	+ 1.5	- 1.6	- 1.0	+ 0.1
For the Year.....	18.4	+ 4.5	- 3.5	- 6.9	- 0.8	+ 4.6	- 1.6	- 1.6	+ 0.7

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

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

$$V'_t = m + c_1 \sin(t' + \alpha') + c_2 \sin(2t' + \beta') + c_3 \sin(3t' + \gamma') + c_4 \sin(4t' + \delta')$$

(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_t , V'_t 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 .00001 of the whole Horizontal and Vertical Forces respectively.

Month, 1901.	m	c_1	α	α'	c_2	β	β'	c_3	γ	γ'	c_4	δ	δ'
DECLINATION WEST.													
January	1.11	0.78	254.25	256.46	0.79	15.52	20.34	0.38	236.12	243.15	0.26	30.3	39.27
February	1.38	1.16	246.53	250.23	1.00	18.53	25.53	0.51	247.9	257.39	0.21	33.57	47.57
March	2.60	1.96	232.31	234.43	1.61	35.4	39.28	1.01	232.21	238.57	0.45	56.51	65.39
April	3.69	2.03	214.0	214.4	1.97	32.34	32.42	1.14	225.25	225.37	0.38	56.12	56.28
May	3.68	2.34	212.33	211.41	1.90	43.15	41.31	0.86	237.31	234.55	0.24	76.9	72.41
June	3.76	2.90	210.23	210.27	1.75	44.29	44.37	0.77	240.50	241.2	0.11	66.34	66.50
July	3.73	2.62	211.28	212.49	1.97	46.27	49.9	0.75	238.8	242.11	0.06	56.31	61.55
August	3.30	2.35	226.21	227.19	1.86	59.22	61.18	0.82	250.18	253.12	0.10	59.51	63.43
September	2.75	2.13	235.32	234.19	1.65	57.33	55.7	1.02	254.26	250.47	0.36	67.20	62.28
October	2.06	1.51	242.27	238.58	1.30	34.47	27.49	0.87	242.57	232.30	0.40	68.58	55.2
November	1.04	1.02	254.11	250.29	0.75	36.31	29.7	0.44	261.31	250.25	0.24	76.9	61.21
December	1.04	0.71	262.28	261.23	0.61	29.49	27.39	0.31	263.35	260.20	0.20	53.49	49.29
For the Year	2.37	1.72	226.51	226.51	1.40	40.49	40.49	0.73	241.56	241.56	0.24	59.18	59.18
HORIZONTAL FORCE.													
January	44°	19.0	46.53	49.14	19.4	274.2	278.44	9.9	131.1	138.4	4.1	347.13	356.37
February	63.3	27.5	76.53	80.23	21.6	284.38	291.38	11.8	144.28	154.58	5.8	339.20	353.20
March	70.5	29.2	99.33	101.45	21.2	296.54	301.18	15.1	130.22	136.58	7.7	359.41	8.29
April	132.4	61.2	107.23	107.27	39.6	293.21	293.29	19.5	131.33	131.45	9.3	355.52	356.8
May	100.8	67.3	140.50	139.58	31.3	299.38	297.54	4.8	192.20	189.44	3.2	23.35	20.7
June	111.6	72.3	129.43	129.47	33.8	301.3	301.11	7.0	184.27	184.39	3.8	13.22	13.38
July	105.4	69.2	134.29	135.50	28.4	303.51	306.33	9.2	216.53	220.56	3.8	39.44	45.8
August	114.1	71.7	131.21	132.19	27.2	327.21	329.17	13.5	217.45	220.39	9.0	25.51	29.43
September	117.8	63.7	130.59	129.46	24.1	324.50	322.24	18.8	194.44	191.5	9.6	24.50	19.58
October	99.7	47.8	101.7	97.38	30.1	302.38	295.40	14.1	162.14	151.47	10.0	22.55	8.59
November	57.7	28.4	88.41	84.59	21.6	284.10	276.46	9.3	170.16	159.10	4.6	21.52	7.4
December	41.8	17.4	69.43	68.38	16.7	279.37	277.27	7.6	139.57	136.42	2.9	18.29	14.9
For the Year	83.5	44.7	113.43	113.43	25.4	298.58	298.58	9.9	164.54	164.54	5.9	12.31	12.31
VERTICAL FORCE.													
January	14.2	11.7	138.9	140.30	4.4	235.35	240.17	2.8	84.2	91.5	0.2	270.0	279.24
February	10.5	6.4	178.21	181.51	4.1	219.16	226.16	2.7	118.22	128.52	1.5	281.0	295.0
March	24.0	7.0	125.8	127.20	9.3	249.55	254.19	6.6	110.58	117.34	3.6	292.40	301.28
April	35.7	10.9	108.48	108.52	11.7	250.49	250.57	8.3	102.27	102.39	4.1	280.16	280.32
May	44.6	17.8	105.55	105.3	15.3	267.23	265.39	8.4	113.45	111.9	2.2	306.36	303.8
June	24.4	8.3	108.12	108.16	9.6	265.26	265.34	5.4	122.49	123.1	1.4	303.14	303.30
July	29.3	8.2	119.36	120.57	11.2	268.15	270.57	5.7	94.15	98.18	2.0	253.18	258.42
August	20.3	3.1	100.37	101.35	9.3	277.47	279.43	6.4	109.57	112.51	1.2	296.1	299.53
September	17.8	5.4	109.0	107.47	7.3	271.11	268.45	4.0	111.38	107.59	1.0	325.37	320.45
October	12.4	1.5	129.9	125.40	3.7	283.44	276.46	5.3	109.4	98.37	2.3	300.5	286.9
November	6.4	4.5	258.46	255.4	2.3	31.59	24.35	1.5	117.41	106.35	1.7	341.55	327.7
December	9.3	8.0	238.10	237.5	2.1	294.56	292.46	2.2	138.6	134.51	1.0	278.4	273.44
For the Year	18.4	5.7	127.59	127.59	6.9	263.28	263.28	4.9	109.37	109.37	1.7	293.18	293.18

TABLE XVII.—RESULTS of OBSERVATIONS of MAGNETIC DIP made in the MAGNETIC PAVILION in the YEAR 1901.

Greenwich Civil Time, 1901.	3-inch Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1901.	3-inch Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1901.	3-inch Needle.	Magnetic Dip.	Observer.
Jan. 7. 15 9. 15 10. 15 14. 15 15. 12 15. 12 23. 15 23. 16 25. 16 29. 15 29. 16 31. 14	d h D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂	67° 8' 9" 67° 6.46 67° 8.1 67° 7.8 67° 7.37 67° 7.1 67° 7.16 67° 7.22 67° 7.47 67° 7.37 67° 7.56 67° 7.18	N E E E E E N N N N N E	May 15. 15 20. 15 20. 15 29. 14 29. 15	d h D ₂ D ₁ D ₂ D ₁ D ₂	67° 7.25" 67° 6.34 67° 6.35 67° 7.2 67° 7.9	E E E E E	Sept. 12. 15 13. 14 18. 15 18. 16 19. 14 25. 14 25. 15 28. 13 30. 16	d h D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂	67° 6.52" 67° 5.31 67° 5.11 67° 5.36 67° 6.27 67° 5.47 67° 5.39 67° 5.4 67° 5.26	N N N N N N N N N
Feb. 5. 15 8. 15 8. 16 11. 14 12. 14 14. 14 20. 11 20. 12 25. 16 26. 15	D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂	67° 7.40 67° 6.57 67° 6.48 67° 6.29 67° 7.55 67° 7.16 67° 7.25 67° 6.48 67° 6.26 67° 6.34	E N N N E N E E N E	June 3. 16 5. 14 5. 15 12. 12 12. 12 18. 12 25. 12 26. 14 27. 12 27. 12 28. 16 29. 13	d h D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂	67° 6.49 67° 6.51 67° 6.42 67° 6.52 67° 6.3 67° 4.42 67° 6.43 67° 6.13 67° 6.54 67° 6.28 67° 5.44 67° 5.51	N N N E E E E N E E N N	Oct. 1. 12 1. 14 7. 16 10. 16 15. 16 17. 12 21. 14 22. 12 25. 14 25. 15 28. 15	d h D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂	67° 5.7 67° 4.41 67° 4.45 67° 4.36 67° 5.18 67° 4.40 67° 4.31 67° 5.33 67° 5.19 67° 5.18 67° 4.59 67° 5.51	N N N N N E N E E E E E
Mar. 5. 11 5. 12 13. 11 13. 12 19. 11 19. 11 25. 14 27. 12	D ₁ D ₂ D ₂ D ₁ D ₂ D ₁ D ₁ D ₂	67° 6.46 67° 6.34 67° 6.27 67° 6.51 67° 6.10 67° 6.53 67° 7.3 67° 6.26	E E E E E E E E	July 5. 12 5. 12 9. 16 12. 16 13. 10 13. 12 15. 16 22. 15 22. 15 29. 16 30. 12 30. 12	d h D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂	67° 6.42 67° 5.53 67° 5.27 67° 5.8 67° 5.48 67° 6.48 67° 6.15 67° 5.16 67° 6.29 67° 5.29 67° 5.58 67° 6.10	E E N N N N N E N E E E	Nov. 1. 16 6. 15 12. 15 12. 16 15. 14 15. 15 18. 14 18. 15 26. 11 26. 11 29. 14 29. 15	d h D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂	67° 5.40 67° 5.59 67° 4.58 67° 5.50 67° 5.39 67° 6.4 67° 6.0 67° 5.38 67° 5.25 67° 5.37 67° 5.50 67° 6.0	N N N N N N N E N E E E
Apr. 2. 15 4. 13 11. 15 11. 16 17. 15 17. 15 24. 15 24. 15 25. 15 25. 16	D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₂ D ₁	67° 6.1 67° 6.0 67° 6.33 67° 5.56 67° 6.25 67° 5.6 67° 6.19 67° 5.34 67° 6.27 67° 6.49	N N N N E E E E N N	Aug. 3. 13 7. 12 7. 12 13. 12 13. 12 15. 14 15. 16 17. 13 21. 12 21. 13 30. 15 30. 16	d h D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁	67° 4.48 67° 5.21 67° 5.39 67° 4.41 67° 4.30 67° 4.57 67° 5.0 67° 5.7 67° 5.17 67° 5.10 67° 5.54 67° 5.36	N E E E N N N N E E N N	Dec. 6. 13 6. 14 9. 14 13. 15 14. 13 17. 14 18. 12 23. 13 23. 15 28. 13 28. 13 30. 15	d h D ₁ D ₂ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁ D ₂ D ₁	67° 5.58 67° 5.48 67° 4.50 67° 6.18 67° 5.34 67° 5.1 67° 5.4 67° 6.15 67° 5.35 67° 5.45 67° 5.22 67° 5.36	N N N N N N N E E E E E
May 3. 16 13. 13 13. 14 15. 15	D ₂ D ₁ D ₂ D ₁	67° 6.39 67° 5.36 67° 6.28 67° 7.11	N N N E	Sept. 3. 16 5. 15 5. 16	d h D ₁ D ₂ D ₁	67° 5.18 67° 5.2 67° 5.13	N N N	Sept. 30. 15	d h D ₂ D ₁ D ₂ D ₁	67° 5.35 67° 5.45 67° 5.22 67° 5.36	E E E E

The initials N and E are those of Mr Nash and Mr Edney.

TABLE XVIII.—MONTHLY and YEARLY MEANS of MAGNETIC DIP in the YEAR 1901.

Monthly Means of Magnetic Dip.

Month, 1901.	$\frac{D_1}{3}$ -inch Needle.	Number of Observations.	$\frac{D_2}{3}$ -inch Needle.	Number of Observations.
January	67° 7' .48	6	67° 7' .12	6
February	67° 7. 15	5	67. 6. 49	5
March	67. 6. 53	4	67. 6. 24	4
April	67. 6. 25	5	67. 5. 49	5
May	67. 6. 36	4	67. 6. 51	5
June	67. 6. 29	6	67. 6. 9	6
July	67. 6. 6	6	67. 5. 47	6
August	67. 5. 9	6	67. 5. 11	6
September	67. 5. 25	6	67. 5. 46	6
October	67. 4. 48	6	67. 5. 19	6
November	67. 5. 35	6	67. 5. 51	6
December	67. 5. 49	6	67. 5. 22	6
Means.....	67. 6. 8	Sum 66	67. 6. 1	Sum 67
Mean Annual Dip.....			67° 6' .5"	

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 1901.

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, 1901.	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 16. 15 ^{d h}	ft. 1'0 1'3	° 46.2	9.46. 3 4.25. 58	5.784 5.784	100 100	45.6 47.6	N
February 15. 16	1'0 1'3	43.3	9.46. 19 4.26. 9	5.785 5.784	100 100	42.8 44.2	N
March 8. 15	1'0 1'3	46.9	9.45. 40 4.25. 50	5.780 5.786	100 100	46.3 47.3	N
March 28. 16	1'0 1'3	42.4	9.46. 3 4.26. 5	5.782 5.780	100 100	41.6 43.2	N
April 12. 16	1'0 1'3	52.4	9.45. 2 4.25. 36	5.780 5.782	100 100	51.8 53.2	N
April 23. 16	1'0 1'3	72.7	9.42. 54 4.24. 42	5.798 5.796	100 100	70.7 74.0	N
May 13. 16	1'0 1'3	63.6	9.43. 26 4.25. 2	5.792 5.790	100 100	63.0 64.4	N
May 28. 16	1'0 1'3	73.2	9.42. 30 4.24. 28	5.796 5.797	100 100	73.1 74.0	N
June 7. 16	1'0 1'3	66.8	9.42. 45 4.24. 39	5.790 5.788	100 100	66.7 67.1	N
June 25. 16	1'0 1'3	68.6	9.42. 56 4.24. 30	5.790 5.794	100 100	67.5 69.3	N
July 11. 16	1'0 1'3	83.5	9.41. 11 4.23. 52	5.799 5.797	100 100	82.6 84.2	N
July 30. 16	1'0 1'3	75.0	9.41. 49 4.24. 10	5.798 5.794	100 100	74.3 75.5	N
August 12. 16	1'0 1'3	65.4	9.42. 24 4.24. 28	5.789 5.789	100 100	66.1 65.2	N
August 27. 16	1'0 1'3	61.6	9.43. 36 4.24. 59	5.788 5.787	100 100	62.2 61.4	N
September 10. 16	1'0 1'3	68.8	9.42. 50 4.24. 48	5.789 5.795	100 100	69.1 69.1	N
September 20. 16	1'0 1'3	65.3	9.42. 56 4.24. 28	5.793 5.792	100 100	65.8 65.5	N
October 11. 15	1'0 1'3	58.4	9.43. 23 4.24. 47	5.792 5.796	100 100	57.8 59.0	N
October 22. 15	1'0 1'3	54.6	9.43. 53 4.25. 4	5.784 5.790	100 100	53.6 55.2	N
November 8. 16	1'0 1'3	51.1	9.44. 13 4.25. 13	5.781 5.782	100 100	51.0 52.2	N
November 25. 15	1'0 1'3	43.6	9.44. 52 4.25. 20	5.782 5.782	100 100	42.9 44.3	N
December 16. 15	1'0 1'3	41.8	9.45. 9 4.25. 28	5.783 5.781	100 100	40.7 42.4	N

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 the four deflexions observed in these positions of the magnets.

The initial N is that of Mr Nash.

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, 1901.	In English Measure.								In Metric Measure.		
	Apparent Value of A ₁ .	Apparent Value of A ₂ .	Apparent Value of P.	Mean Value of P.	Log. $m \frac{X}{X}$	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.
Jan. 16. 15	0.08497	0.08504	— 0.00197		8.93038	5.7887	0.13567	0.3412	4.0053	1.8468	1.8463
Feb. 15. 16	0.08497	0.08506	— 0.00265		8.93042	5.7914	0.13525	0.3411	4.0032	1.8458	1.8470
Mar. 8. 15	0.08493	0.08501	— 0.00237		8.93019	5.7883	0.13572	0.3412	4.0065	1.8473	1.8463
Mar. 28. 16	0.08492	0.08503	— 0.00310		8.93020	5.7890	0.13562	0.3411	4.0060	1.8471	1.8478
Apr. 12. 16	0.08492	0.08501	— 0.00282		8.93017	5.7843	0.13635	0.3414	4.0095	1.8487	1.8488
Apr. 23. 16	0.08491	0.08503	— 0.00344		8.93018	5.7927	0.13523	0.3410	4.0043	1.8463	1.8458
May 13. 16	0.08485	0.08500	— 0.00434		8.92998	5.7906	0.13549	0.3412	4.0065	1.8473	1.8467
May 28. 16	0.08486	0.08496	— 0.00299		8.92990	5.7924	0.13527	0.3409	4.0057	1.8470	1.8464
June 7. 16	0.08480	0.08492	— 0.00361		8.92964	5.7876	0.13594	0.3410	4.0101	1.8490	1.8486
June 25. 16	0.08485	0.08490	— 0.00147		8.92972	5.7899	0.13562	0.3409	4.0082	1.8481	1.8480
July 11. 16	0.08483	0.08493	— 0.00288	-0.00270	8.92974	5.7887	0.13588	0.3410	4.0093	1.8486	1.8479
July 30. 16	0.08479	0.08489	— 0.00299		8.92953	5.7902	0.13561	0.3409	4.0090	1.8485	1.8492
Aug. 12. 16	0.08473	0.08484	— 0.00333		8.92926	5.7880	0.13588	0.3409	4.0115	1.8497	1.8497
Aug. 27. 16	0.08484	0.08495	— 0.00310		8.92982	5.7876	0.13591	0.3411	4.0091	1.8485	1.8506
Sept. 10. 16	0.08484	0.08500	— 0.00462		8.92995	5.7887	0.13581	0.3411	4.0080	1.8480	1.8472
Sept. 20. 16	0.08480	0.08484	— 0.00118		8.92945	5.7900	0.13557	0.3408	4.0092	1.8486	1.8487
Oct. 11. 15	0.08476	0.08484	— 0.00226		8.92934	5.7948	0.13481	0.3405	4.0062	1.8472	1.8479
Oct. 22. 15	0.08478	0.08488	— 0.00265		8.92947	5.7894	0.13561	0.3408	4.0093	1.8486	1.8494
Nov. 8. 16	0.08478	0.08488	— 0.00276		8.92947	5.7855	0.13618	0.3410	4.0120	1.8499	1.8497
Nov. 25. 15	0.08477	0.08480	— 0.00113		8.92925	5.7894	0.13555	0.3407	4.0101	1.8490	1.8483
Dec. 16. 15	0.08478	0.08482	— 0.00113		8.92933	5.7898	0.13547	0.3407	4.0093	1.8486	1.8491
Means ...	...	...	...	...	...	...	...	...	4.0080	1.8480	1.8481

The value of X in English Measure is referred to the Foot-Grain-Second Unit, and in Metric Measure to the Millimètre-Milligramme-Second Unit. To obtain X in the Centimètre-Gramme-Second (C.G.S.) Unit, the values in Metric Measure must be divided by 10.

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 3, 12, 13, 19, 31, February 4, 11, 15, 16, 25, March 10, 11, 16, 17, 28, April 4, 6, 12, 17, 30, May 4, 5, 16, 28, 30, June 3, 5, 17, 25, 27, July 2, 3, 21, 28, 29, August 1, 6, 11, 26, 28, September 6, 7, 15, 20, 28, October 2, 3, 18, 24, 27, November 1, 8, 15, 22, 30, December 6, 11, 17, 18, 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 Millimètre-Milligramme-Second (Metric) Unit. The letter *f* indicates values in terms of the whole Horizontal or Vertical Force, and the letter *m* values in terms of the Metric Unit, the unit for the former values being .00001 of the whole Horizontal or Vertical Force, and for the latter .00001 of the Metric Unit, or .000001 of the Centimètre-Gramme-Second (C.G.S.) Unit. The values of the whole Horizontal and Vertical Forces expressed in terms of the Metric Unit are 1.8481 and 4.3754 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.)

1901.

Hour Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight.	1.0	0.9	2.1	3.7	3.9	3.9	3.4	2.8	2.2	1.7	0.2	0.6	2.06
1 ^h	1.2	1.2	1.8	3.9	3.7	3.5	3.3	2.7	2.0	1.7	0.6	0.7	2.05
2	1.5	1.4	2.1	3.8	3.6	3.6	3.1	2.7	2.1	1.9	0.8	0.9	2.15
3	1.5	1.6	2.2	3.8	3.3	3.2	3.0	2.5	1.8	1.9	0.9	1.0	2.09
4	1.4	1.6	2.2	3.6	2.8	2.5	2.6	2.1	1.7	2.0	0.9	0.8	1.88
5	1.3	1.5	2.1	3.2	1.8	1.6	1.4	1.3	1.5	1.8	0.9	0.6	1.44
6	1.1	1.2	1.8	2.7	1.0	0.5	0.6	0.4	1.1	1.5	0.5	0.3	0.92
7	0.8	0.5	1.2	1.2	0.3	0.0	0.2	0.0	0.4	0.9	0.3	0.1	0.35
8	0.4	0.0	0.3	0.0	0.0	0.6	0.0	0.3	0.0	0.0	0.1	0.0	0.00
9	0.0	0.0	0.0	0.3	0.7	1.6	0.8	1.9	0.9	0.1	0.0	0.1	0.39
10	0.6	0.7	1.6	2.0	2.2	3.2	2.7	4.0	2.4	1.5	1.0	0.7	1.74
11	1.4	1.7	4.0	5.8	4.9	5.5	5.2	6.3	4.6	3.7	2.3	1.4	3.76
Noon.	2.3	2.3	6.3	8.3	7.5	7.7	6.7	7.6	6.6	5.6	3.5	1.9	5.38
13 ^h	3.3	2.9	7.1	9.0	8.4	8.6	7.7	8.6	7.1	6.1	3.4	2.2	6.06
14	3.5	3.0	6.5	8.3	7.7	8.6	7.9	7.7	6.1	5.3	2.5	1.6	5.59
15	2.6	2.3	5.1	6.7	6.1	7.3	7.1	6.1	4.3	3.7	1.6	0.9	4.34
16	1.8	1.8	3.4	5.3	4.7	6.0	5.3	4.3	3.0	2.5	1.5	0.6	3.21
17	1.5	1.8	2.8	4.4	3.7	4.8	3.7	3.1	2.6	2.1	1.4	0.4	2.55
18	1.3	1.6	2.9	3.7	3.0	4.1	3.3	2.9	2.3	1.9	1.1	0.2	2.22
19	1.2	1.3	2.8	3.8	3.0	4.0	3.4	3.2	2.3	1.7	0.9	0.2	2.18
20	1.0	1.2	2.5	3.8	3.2	4.1	3.5	3.3	2.3	1.6	0.8	0.1	2.14
21	0.8	1.0	2.3	3.9	3.4	4.0	3.4	3.2	2.1	1.6	0.8	0.0	2.07
22	0.8	0.9	2.3	3.8	3.6	4.0	3.6	3.3	2.0	1.6	0.7	0.1	2.08
23	0.6	1.1	2.2	3.8	3.7	3.7	3.6	3.2	1.9	1.6	0.7	0.3	2.06
24	1.0	1.2	2.2	3.5	3.6	3.6	3.4	3.1	2.0	1.8	0.9	0.5	2.09
Means	1.37	1.40	2.82	4.12	3.59	4.02	3.56	3.48	2.64	2.25	1.14	0.65	2.45
1 ^h -24 ^h	1.37	1.41	2.82	4.11	3.58	4.01	3.56	3.49	2.63	2.25	1.17	0.65	2.45

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.)

1901.

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.	57	105	54	100	96	177	179	331	135	249	164	303	136	251	152	281	111	205	152	281	81	150	30	55	105·7	195·1	
1 ^h	57	105	57	105	85	157	181	335	125	231	154	285	126	233	145	268	107	198	145	268	82	152	32	59	101·4	187·5	
2	56	103	59	109	78	144	176	325	127	235	154	285	122	225	141	261	109	201	139	257	86	159	42	78	100·8	186·3	
3	58	107	60	111	78	144	171	316	118	218	149	275	124	229	136	251	103	190	139	257	89	164	46	85	99·3	183·4	
4	66	122	61	113	81	150	167	309	114	211	157	290	129	238	126	233	101	187	151	279	99	183	51	94	102·0	188·6	
5	69	128	68	126	89	164	164	303	103	190	153	283	119	220	114	211	97	179	157	290	98	181	54	100	100·5	185·7	
6	78	144	76	140	90	166	161	298	85	157	128	237	96	177	87	161	85	157	151	279	95	176	44	81	91·4	168·9	
7	78	144	66	122	90	166	141	261	62	115	96	177	72	133	53	98	71	131	127	235	83	153	44	81	75·3	139·1	
8	76	140	62	115	80	148	105	194	34	63	72	133	44	81	18	33	41	76	80	148	65	120	34	63	52·7	97·3	
9	50	92	43	79	54	100	53	98	8	15	32	59	18	33	0	0	8	15	30	55	27	50	18	33	21·8	40·2	
10	22	41	20	37	24	44	2	4	0	0	0	0	0	0	0	8	15	0	0	0	0	3	6	0	0	0·0	0·0
11	6	11	12	22	0	0	0	0	16	30	4	7	10	18	34	63	2	4	4	7	0	0	6	11	1·2	2·2	
Noon.	0	0	7	13	8	15	21	39	44	81	36	67	26	48	64	118	37	68	33	61	12	22	4	7	17·7	32·7	
13 ^h	8	15	0	0	37	68	74	137	76	140	70	129	64	118	108	200	68	126	78	144	42	78	20	37	47·2	87·1	
14	16	30	24	44	60	111	110	203	98	181	106	196	104	192	132	244	91	168	111	205	58	107	26	48	71·4	131·9	
15	33	61	35	65	82	152	138	255	120	222	141	261	141	261	145	268	87	161	129	238	67	124	34	63	89·4	165·4	
16	46	85	43	79	90	166	168	310	142	262	163	301	145	268	133	246	84	155	146	270	73	135	37	68	99·2	183·2	
17	58	107	53	98	90	166	183	338	156	288	187	346	139	257	147	272	96	177	154	285	88	163	44	81	109·6	202·6	
18	56	103	75	139	99	183	193	357	158	292	201	371	142	262	155	286	106	196	169	312	96	177	55	102	118·8	219·5	
19	56	103	86	159	105	194	201	371	169	312	213	394	170	314	182	336	127	235	171	316	98	181	56	103	129·6	239·3	
20	55	102	82	152	108	200	199	368	166	307	221	408	175	323	184	340	137	253	171	316	94	174	54	100	130·6	241·4	
21	46	85	78	144	105	194	195	360	164	303	215	397	163	301	166	307	127	235	169	312	84	155	58	107	124·2	229·5	
22	44	81	82	152	109	201	196	362	148	274	205	379	157	290	160	296	121	224	171	316	81	150	54	100	120·7	223·2	
23	50	92	89	164	105	194	194	359	145	268	190	351	147	272	156	288	118	218	164	303	77	142	58	107	117·8	217·6	
24	56	103	93	172	103	190	209	386	147	272	176	325	143	264	158	292	114	211	158	292	77	142	54	100	117·4	216·9	
Means 1 ^h -23 ^h	47·5	87·8	53·8	99·5	76·8	141·8	140·5	259·7	104·7	193·5	133·8	247·2	107·0	197·7	114·4	211·5	84·8	156·6	122·5	226·4	69·9	129·3	37·5	69·3	84·5	156·2	
1 ^h -24 ^h	47·5	87·7	55·5	102·5	77·1	142·4	141·7	262·0	105·2	194·5	134·3	248·2	107·3	198·2	114·7	212·0	84·9	156·9	122·8	226·9	69·8	128·9	38·5	71·2	85·0	157·1	

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.)

1901.

Hour, Greenwich 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.	26	114	9	39	35	153	49	214	43	188	30	131	29	127	29	127	22	96	16	70	15	66	4	18	22·3	97·3
1 ^h	20	88	3	13	35	153	45	197	44	193	22	96	33	144	29	127	22	96	16	70	11	48	4	18	20·4	89·0
2	14	61	0	0	34	149	43	188	42	184	24	105	31	136	29	127	18	79	14	61	7	31	0	0	18·0	78·8
3	10	44	2	9	30	131	40	175	42	184	26	114	31	136	29	127	20	88	14	61	7	31	3	13	17·9	78·2
4	6	26	2	9	28	123	42	184	44	193	32	140	40	175	30	131	20	88	12	53	7	31	5	22	19·0	83·3
5	6	26	6	26	28	123	46	201	46	201	34	149	38	166	36	158	20	88	14	61	9	39	5	22	20·7	90·4
6	8	35	4	18	32	140	46	201	48	210	36	158	40	175	34	149	26	114	16	70	7	31	9	39	22·2	97·1
7	12	53	14	61	36	158	56	245	48	210	38	166	40	175	30	131	24	105	16	70	19	83	9	39	25·2	110·1
8	14	61	18	79	38	166	58	254	42	184	30	131	38	166	28	123	18	79	20	88	19	83	11	48	24·5	107·2
9	10	44	14	61	28	123	40	175	28	123	20	88	32	140	16	70	12	53	18	79	19	83	7	31	17·0	74·6
10	2	9	8	35	14	61	22	96	12	53	8	35	20	88	2	9	4	18	10	44	11	48	9	39	6·9	30·0
11	2	9	4	18	4	18	18	79	0	0	0	0	4	18	0	0	0	0	4	18	7	31	11	48	1·2	5·3
Noon.	0	0	6	26	0	0	0	0	0	0	2	9	0	0	6	26	6	26	0	0	7	31	13	57	0·0	0·0
13 ^h	2	9	6	26	18	79	10	44	8	35	10	44	14	61	14	61	12	53	4	18	11	48	19	83	7·4	32·1
14	12	53	12	53	34	149	34	149	28	123	16	70	31	136	26	114	16	70	10	44	21	92	23	101	18·6	81·6
15	16	70	18	79	36	158	52	228	32	140	26	114	47	206	30	131	22	96	15	66	21	92	16	70	24·3	106·2
16	23	101	16	70	38	166	52	228	42	184	32	140	53	232	32	140	28	123	17	74	15	66	14	61	26·9	117·5
17	29	127	10	44	36	158	54	236	44	193	32	140	53	232	30	131	28	123	13	57	12	53	14	61	26·3	115·0
18	27	118	14	61	26	114	52	228	42	184	32	140	49	214	26	114	28	123	13	57	10	44	10	44	24·1	105·5
19	30	131	16	70	33	144	50	219	48	210	28	123	41	179	20	88	28	123	11	48	2	9	8	35	22·9	100·3
20	32	140	14	61	33	144	52	228	42	184	24	105	39	171	20	88	28	123	13	57	2	9	4	18	22·0	96·1
21	30	131	10	44	33	144	52	228	42	184	20	88	41	179	20	88	28	123	11	48	0	0	8	35	21·3	93·1
22	28	123	8	35	35	153	50	219	50	219	26	114	43	188	20	88	28	123	13	57	2	9	8	35	22·6	99·0
23	28	123	10	44	33	144	50	219	48	210	26	114	43	188	20	88	26	114	20	88	2	9	6	26	22·7	99·3
24	24	105	6	26	27	118	45	197	48	210	24	105	41	179	18	79	30	131	22	96	7	31	4	18	21·4	93·3
Means o ^h -23 ^h	16·1	70·7	9·3	40·9	29·0	127·1	42·2	184·8	36·0	157·9	23·9	104·7	34·6	151·3	23·2	101·5	20·2	88·5	12·9	56·6	10·1	44·5	9·2	40·1	18·9	82·8
1 ^h -24 ^h	16·0	70·3	9·2	40·3	28·7	125·7	42·0	184·1	36·2	158·8	23·7	103·7	35·1	153·5	22·7	99·5	20·5	90·0	13·2	57·7	9·8	43·0	9·2	40·1	18·9	82·6

ROYAL OBSERVATORY, GREENWICH.



MAGNETIC DISTURBANCES

AND

EARTH CURRENTS.

1901.

MAGNETIC DISTURBANCES in DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE,
recorded at the ROYAL OBSERVATORY, GREENWICH, in the Year 1901.

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 ± 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).

1901.

January 2^d 3^h to 5^h Double wave in Dec. (+ 3' to - 3'): in H.F. (+ .0014 to - .0006): slight decrease of V.F. 5¹₂^h to 6^h Decrease of Dec. (- 3'): decrease of H.F. (- .0008).
 4^d 22^h to 23¹₂^h Double wave in H.F. (- .0008 to + .0006).
 5^d 2^h to 11^h Small fluctuations in Dec. and H.F.
 5^d 12^h to 6^d 12^h. See Plate I.
 6^d 19^h to 22^h Small fluctuations in Dec. and H.F.
 7^d 21¹₂^h to 23¹₂^h Small double wave in Dec. (- 2' to + 3'). 22¹₂^h to 23¹₂^h Wave in H.F. (+ .0010): small wave in V.F.
 8^d 23^h to 23¹₂^h Sharp wave in H.F. (+ .0010).
 9^d 7^h to 10^h Small fluctuations in Dec. and H.F. 15¹₂^h to 16¹₂^h Wave in H.F. (- .0008): increase of V.F. (+ .0004). 17^h to 18^h Wave in Dec. (- 3'). 21¹₂^h to 22¹₂^h Wave in Dec. (- 4').
 21^d 16^h to 18^h Wave in Dec. (+ 3').
 22^d 6^h to 9^h Small fluctuations in Dec. and H.F.
 22^d 12^h to 23^d 12^h. See Plate I.
 23^d 12¹₂^h to 14^h Wave in H.F. (- .0014). 13^h to 14¹₂^h Shallow wave in Dec. (+ 3'). 15^h to 16^h Fluctuations in H.F. (± .0006). 17¹₂^h to 18¹₂^h Wave in H.F. (- .0020): in V.F. small. 18^h to 19¹₂^h Wave in Dec. (- 8'). 23^d 23^h to 24^d 10^h Loss of Dec. and H.F. registers.
 24^d 12^h to 13^h Wave in H.F. (- .0010). 12¹₂^h to 13¹₂^h Wave in Dec. (- 2'). 20^h to 21¹₂^h Small fluctuations in H.F. 21^h to 21¹₂^h Wave in Dec. (+ 3'). 21¹₂^h to 22¹₂^h Wave in H.F. (+ .0010): in V.F. small.
 28^d 19^h to 20^h Wave in Dec. (- 3'): in H.F. small.

February 2^d 3^h to 5^h Two successive waves in Dec. (- 2') and (- 2¹₂^h): small fluctuations in H.F. 7¹₂^h to 8^h Decrease of H.F. (- .0008). 11^h to 13¹₂^h Small fluctuations in Dec. and H.F. 13¹₂^h to 17^h Double wave in H.F. (+ .0010 to - .0022). 18^h to 19^h Wave in V.F. (+ .0003). 20^h to 21¹₂^h Serrated wave in Dec. (- 5'): in H.F. small. 22^h to 22¹₂^h Wave in H.F. (+ .0012): in Dec. small. 2^d 23^h to 3^d 0¹₂^h Wave in H.F. (+ .0020): in Dec. (- 3'): in V.F. small.
 3^d 16³₄^h to 17¹₂^h Wave in H.F. (- .0007).
 6^d 0¹₂^h to 1¹₂^h Double wave in Dec. (+ 3' to - 3'): wave in H.F. (+ .0010): decrease of V.F. (- .0003).

1901.

- February 7^d 20^{1h} to 22^{1h} Long shallow wave in Dec. (- 3'). 21^h to 22^h Small wave in H.F.
 12^d 2^h to 8^h Small fluctuations in Dec. and H.F. 20^h to 21^h Small fluctuations in Dec. and H.F. 21^h to 22^h
 Wave in H.F. (- .0010). 12^d 23^h to 13^d 0^{1h} Wave in H.F. (+ .0020): small double wave in Dec.
 (+ 2¹' to - 2¹): small decrease of V.F.
 13^d 9^h to 10^h Wave in H.F. (- .0010): in Dec. small. 20^{1h} to 22^h Wave in Dec. (- 3'): in H.F. small.
 14^d 22^{1h} to 23^{1h} Small wave in H.F.
 17^d 10^h to 18^d 11^h Loss of Dec. and H.F. registers.
 18^d 21^{1h} to 23^{1h} Shallow wave in Dec. (- 2'): small fluctuations in H.F.
 19^d 8^h to 14^{1h} Small fluctuations in Dec. and H.F. 14^{1h} to 15^h Decrease of Dec. (- 4'): decrease of H.F.
 (- .0012). 22^h to 22^{1h} Wave in Dec. (- 6'): in H.F. (+ .0026): in V.F. small. 22^{1h} to 23^{1h}
 Wave in H.F. (+ .0007): in Dec. (- 3').
 20^d 2^h to 4^h Long irregular wave in Dec. (+ 4'). 4^h to 16^h Small fluctuations in Dec. and H.F. 17^{1h} to 19^h
 Small wave in Dec. (- 3'): in H.F. (- .0012). 20^{1h} to 20^{3h} Wave in Dec. (- 3'): in H.F. (+ .0010).
 23^h to 24^h Wave in H.F. (+ .0012): in Dec. and V.F. small.
 22^d 3^h to 4^h Small wave in Dec.
 22^d 12^h to 23^d 12^h. See Plate I.
 23^d 12^h to 14^h Small fluctuations in Dec. and H.F. 17^{1h} to 18^h Wave in H.F. (+ .0011): in Dec. small.
 24^d 1^{1h} to 1^{3h} Increase of Dec. (+ 3'), followed till 3^h by a shallow wave (- 2').
 25^d 23^h to 23^{1h} Wave in H.F. (+ .0006): in Dec. small.
 26^d 11^{1h} to 27^d 11^{1h} Loss of Dec. and H.F. registers.

March

- 1^d 15^h to 17^h Prolonged wave in H.F. (- .0010).
 2^d 6^h to 10^h Shallow wave in V.F. (+ .0002). 23^h to 24^h Wave in Dec. (- 2¹): in H.F. small.
 3^d 12^h to 16^h Fluctuations in Dec. 13^{1h} to 15^h Wave in H.F. (- .0010).
 13^d 0^h to 2^h Wave in Dec. (- 3¹): in H.F. (+ .0006). 4^h to 5^h Wave in H.F. (- .0007). 6^h to 8^{1h} Long
 shallow wave in Dec. (+ 3'). 7^h to 8^{1h} Wave in H.F. (+ .0007). 21^h to 22^{1h} Wave in Dec. (- 3'): in H.F. small.
 14^d 1^{1h} to 2^{1h} Wave in Dec. (+ 3'): in H.F. (+ .0012): in V.F. small.
 18^d 12^h to 16^{1h} Loss of H.F. and V.F. registers. 17^h to 18^h Wave in H.F. (- .0012). 18^d 23^h to 19^d 2^h
 Double wave in Dec. (+ 4' to - 8'): wave in H.F. (+ .0013): decrease of V.F. (- .0008).
 21^d 0^h to 1^{1h} Small wave in H.F. (+ .0008). 3^h to 4^{1h} Wave in Dec. (+ 3').
 23^d 18^{3h} to 19^{1h} Sharp wave in H.F. (+ .0018): in Dec. small. 20^{1h} to 21^{3h} Wave in Dec. (- 10'): in H.F. (+ .0020). 22^h to 23^h Small fluctuations in H.F.
 24^d 0^{1h} to 1^{1h} Wave in H.F. (+ .0016): in Dec. small: slight decrease of V.F. 2^h to 5^h Fluctuations in Dec.
 (± 2): in H.F. and V.F. small.
 24^d 12^h to 25^d 12^h. See Plate I.
 27^d 18^{1h} to 20^h Small wave in Dec. (- 2').
 29^d 16^h Increase of H.F. (+ .0012): slight increase of Dec. 16^h to 17^{1h} Small fluctuations in H.F. 17^{1h} to 19^h
 Double wave in H.F. (+ .0010 to - .0010), followed by small fluctuations till 20^h. 18^h to 20^h Wave in Dec. (- 4'). 20^{1h} to 24^h Prolonged wave in Dec. (- 6'). 20^{1h} to 21^{1h} Serrated wave in H.F.
 (- .0014).
 30^d 3^{1h} to 4^{1h} Wave in Dec. (+ 2'): in H.F. small.

April

- 1^d 18^h to 20^h Serrated wave in H.F. (- .0018). 22^{3h} to 24^h Double wave in H.F. (+ .0008 to - .0008): in V.F. small. 1^d 22^{3h} to 2^d 1^{1h} Prolonged wave in Dec. (- 6').
 2^d 0^h to 1^{1h} Wave in H.F. (- .0011). 6^{1h} to 8^h Decrease of Dec. (- 5').
 7^d 21^{1h} to 21^{3h} Decrease of Dec. (- 2¹).
 11^d 0^h to 3^h Small fluctuations in Dec. and H.F.

1901.

- April 13^d 18^h to 23^h. Small fluctuations in Dec. and H.F.
 14^d 2¹₂^h to 4^h Wave in Dec. (+ 3'): in H.F. small. 15^h to 19^h Small fluctuations in H.F. 17^h to 18^h Decrease of Dec. (- 4'). 19^h to 20^h Wave in H.F. (- .0012). 21^h to 22^h Small wave in H.F.
 15^d 0^h to 1^h Wave in Dec. (+ 4'): in H.F. (+ .0010): slight decrease of V.F. 20¹₂^h to 22¹₄^h Double wave in H.F. (- .0010 to + .0007). 21^h to 21¹₂^h Slight decrease of V.F. 21^h to 23^h Sharp wave in Dec. (- 10').
 16^d 17¹₂^h to 19^h Wave in Dec. (- 3'): in H.F. small.
 18^d 19¹₄^h to 20³₄^h Serrated wave in Dec. (- 3').
 24^d 2¹₂^h to 4^h Wave in Dec. (- 3'). 20^h to 21^h Small wave in Dec.
 27^d 5¹₂^h to 10^h Small fluctuations in Dec., H.F. and V.F. 13¹₄^h to 13³₄^h Wave in Dec. (+ 3'): in H.F. (+ .0010): increase of V.F. (+ .0002), followed till 14^h by smaller waves in Dec. and H.F. 14¹₄^h Decrease of H.F. (- .0015). 14¹₂^h to 17^h Fluctuations in H.F. (\pm .0005): small fluctuations in Dec. and V.F. 17¹₂^h to 18¹₂^h Wave in H.F. (- .0012). 17¹₂^h to 19¹₄^h Wave in Dec. (- 6'). 27^d 23¹₂^h to 28^d 1^h Wave in Dec. (- 3'): in H.F. (+ .0007).
 30^d 19^h to 22^h Small fluctuations in Dec. and H.F.
- May 1^d 12^h to 21^h Small fluctuations in H.F.
 3^d 1¹₂^h to 2^h Wave in Dec. (+ 2').
 7^d 22^h to 24^h Prolonged shallow wave in Dec. (- 2').
 8^d 0^h to 1^h Wave in H.F. (+ .0008). 0^h to 2¹₂^h Wave in Dec. (- 2').
 9^d 19¹₂^h Decrease of Dec. (- 2').
 10^d 7^h to 11^d 7^h. See Plate II.
 11^d 12^h to 20^h Small fluctuations in H.F.
 12^d 0¹₄^h to 1¹₂^h Wave in Dec. (+ 3'): in H.F. small. 15¹₂^h to 17^h Small fluctuations in H.F. 18¹₂^h to 20^h Wave in Dec. (- 3'): small double wave in H.F.
 15^d 15^h to 21^h Small fluctuations in H.F.
 21^d 14^h to 22^d 12^h Loss of Dec. and H.F. registers.
 23^d 13^h Increase of Dec. (+ 3'): of H.F. (+ .0020). 15^h to 19^h Fluctuations in H.F. 19^h to 19¹₄^h Sharp wave in H.F. (- .0022): in Dec. small. 23¹₄^h to 24^h Wave in Dec. (+ 3'): in H.F. (+ .0008): in V.F. small.
 24^d 1¹₂^h to 3^h Two successive waves in Dec. (+ 2') and (+ 3'). 2¹₂^h to 3¹₂^h Wave in H.F. (+ .0012): in V.F. small. 15^h to 20^h Fluctuations in H.F. and V.F. 24^d 22^h to 25^d 0¹₂^h Prolonged wave in Dec. (- 5'): in H.F and V.F. small.
 25^d 15^h to 15¹₂^h Wave in H.F. (- .0010).
 27^d 0¹₂^h to 1¹₂^h Wave in Dec. (- 3'): in H.F. (+ .0009). 15¹₂^h to 17¹₂^h Fluctuations in H.F. (\pm .0007).
 28^d 14¹₂^h to 16^h Wave in V.F. (- .003).
 29^d 10^h to 16^h Loss of Dec., H.F. and V.F. registers.
 31^d 8¹₂^h to 16^h Small fluctuations in H.F. (\pm .0005). 16^h Sharp increase of H.F. (+ .0019): of Dec. small. 16^h to 24^h Small fluctuations in Dec., H.F. and V.F.
- June 1^d 0³₄^h to 2^h Double wave in Dec. (- 3' to + 2'): in H.F. (+ .0006 to - .0006), followed by fluctuations in Dec. and H.F. till 6^h. 11^h to 18¹₂^h Loss of Dec., H.F. and V.F. registers. 22^h to 23^h Small wave in H.F. (+ .0006). 23^h to 24^h Wave in Dec. (+ 3').
 2^d 17^h to 19^h Small fluctuations in H.F.
 6^d 15¹₄^h Increase of H.F. (+ .0012), followed by small fluctuations till 19^h.
 7^d 18^h to 19^h Fluctuations in H.F.
 8^d 0^h to 5^h Fluctuations in Dec. and H.F.
 9^d 22³₄^h to 23¹₂^h Wave in Dec. (+ 3'): in H.F. (+ .0010).

1901.

- June 10^d 20^h to 21^h Small wave in Dec.
 13^d $11\frac{3}{4}^h$ Increase of H.F. (+ ·0010), followed by small fluctuations till 18^h . 18^h to $18\frac{1}{2}^h$ Wave in H.F. (+ ·0010). $18\frac{3}{4}^h$ to 20^h Three successive waves in H.F. (+ ·0010), (+ ·0008) and (+ ·0011). $20\frac{1}{2}^h$ to 21^h Wave in Dec. (- 4'), followed by fluctuations till 22^h . 22^h to 24^h Two successive waves in H.F. (+ ·0010) and (+ ·0010): in Dec. small. 13^d 23^h to 14^d 6^h Long wave in V.F. (- ·0007).
 14^d 0^h to 4^h Prolonged wave in Dec. (- 6') in H.F. (+ ·0017) both with superposed fluctuations. $14\frac{1}{2}^h$ to 19^h Fluctuations in H.F.
 15^d $4\frac{1}{2}^h$ to $6\frac{1}{2}^h$ Wave in H.F. (- ·0012). 5^h to 7^h Prolonged wave in Dec. (+ 4'). 8^h to 10^h Small fluctuations in Dec., H.F. and V.F. $16\frac{1}{2}^h$ to 19^h Shallow wave in H.F. (+ ·0010). 19^h to $20\frac{1}{2}^h$ Shallow wave in Dec. (- 2'). $21\frac{1}{2}^h$ to 23^h Decrease of Dec. (- 6'). $22\frac{1}{2}^h$ to 24^h Two successive waves in H.F. (+ ·0007) and (+ ·0008). 23^h to 24^h Wave in Dec. (+ 4'): decrease of V.F. (- ·0003).
 16^d 3^h to $4\frac{1}{2}^h$ Wave in Dec. (+ 3').
 19^d $14\frac{1}{4}^h$ Decrease of H.F. (- ·0010): of Dec. small. 15^h to 18^h Fluctuations in H.F.
 20^d 17^h to 24^h Fluctuations in H.F. (\pm ·0005).
 21^d $1\frac{1}{2}^h$ to $2\frac{1}{4}^h$ Wave in Dec. (+ 3'): in H.F. (+ ·0018): decrease of V.F. (- ·0003). $2\frac{1}{2}^h$ to $4\frac{1}{2}^h$ Double wave in Dec. (- 2' to + 2'). 3^h to 4^h Small wave in H.F. 7^h to 10^h Small fluctuations in Dec., H.F. and V.F. 10^h to $11\frac{1}{2}^h$ Wave in H.F. (+ ·0014). $12\frac{1}{2}^h$ to 15^h Two successive waves in H.F. (- ·0020) and (- ·0020). 15^h to 19^h Sharp fluctuations in H.F. (\pm ·0010): in V.F. small. 19^h to 21^h Prolonged wave in Dec. (- 2'). $22\frac{1}{4}^h$ to 23^h Wave in H.F. (+ ·0011). 21^d $23\frac{3}{4}^h$ to 22^d $0\frac{1}{2}^h$ Wave in Dec. (+ 3'): in H.F. (+ ·0008).
 22^d 17^h to 19^h Small fluctuations in H.F.
 23^d 5^h to 6^h Small fluctuations in Dec., H.F. and V.F. 14^h to 19^h Small fluctuations in H.F.
 26^d 15^h to $16\frac{1}{2}^h$ Small fluctuations in H.F.
 29^d 15^h to 19^h Fluctuations in H.F. $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Decrease of Dec. (- 3'). $20\frac{1}{2}^h$ to 22^h Wave in H.F. (+ ·0010).
 30^d 5^h to 8^h Small fluctuations in Dec. $12\frac{1}{2}^h$ to $14\frac{1}{2}^h$ Double wave in H.F. (- ·0006 to + ·0006). 17^h to $19\frac{1}{2}^h$ Small fluctuations in H.F.

July

- 1^d $11\frac{1}{2}^h$ to 21^h Loss of V.F. register. 14^h to 16^h Shallow wave in H.F. (+ ·0010).
 4^d 8^h to 10^h Small fluctuations in Dec. and H.F. 15^h to $15\frac{1}{2}^h$ Wave in H.F. (- ·0010). 15^h to 18^h Small fluctuations in H.F.
 6^d 12^h to 18^h Fluctuations in H.F. (\pm ·0005).
 7^d 2^h to $3\frac{1}{4}^h$ Wave in Dec. (+ 3').
 8^d 15^h to 19^h Small fluctuations in H.F.
 11^d 12^h to 12^d 12^h . See Plate II.
 12^d $12\frac{1}{2}^h$ to 15^h Loss of Dec., H.F. and V.F. registers. 17^h to 21^h Small fluctuations in Dec. and H.F.
 14^d 23^h to 24^h Small wave in Dec. (- 2').
 15^d 16^h to 18^h Fluctuations in H.F.
 16^d $12\frac{1}{2}^h$ to $16\frac{1}{2}^h$ Loss of Dec. and H.F. registers. $20\frac{3}{4}^h$ to $21\frac{1}{2}^h$ Small wave in Dec. 23^h to 24^h Fluctuations in H.F. (\pm ·0007).
 17^d 3^h to 7^h Fluctuations in Dec. (\pm 2'). 12^h to $12\frac{1}{2}^h$ Wave in H.F. (- ·0010). 13^h to $14\frac{1}{2}^h$ Double wave in H.F. (- ·0008 to + ·0007). 13^h to 18^h Small fluctuations in Dec. 15^h to $16\frac{1}{2}^h$ Irregular wave in H.F. (+ ·0024). $16\frac{1}{4}^h$ to $17\frac{3}{4}^h$ Two successive waves in H.F. (+ ·0012) and (+ ·0015). 18^h to 20^h Prolonged wave in H.F. (+ ·0018).
 18^d 3^h to 8^h Small fluctuations in Dec. and H.F. 13^h to 17^h Fluctuations in H.F. (\pm ·0006).
 19^d 0^h to 2^h Fluctuations in Dec. and H.F. $2\frac{1}{2}^h$ to 4^h Wave in Dec. (+ 3'). $12\frac{3}{4}^h$ to $13\frac{1}{2}^h$ Wave in H.F. (+ ·0010). $14\frac{1}{2}^h$ to 15^h Increase of H.F. (+ ·0014). 16^h to 19^h Fluctuations in H.F. 23^h to 24^h Flat-crested wave in Dec. (- 3'). 19^d 23^h to 20^d $0\frac{1}{2}^h$ Two successive waves in H.F. (+ ·0012) and (+ ·0010).
 20^d 5^h to 11^h Small fluctuations in Dec. and H.F. 13^h to 15^h Small fluctuations in H.F. $15\frac{1}{2}^h$ to $16\frac{1}{2}^h$ Wave in H.F. (+ ·0010).
 22^d 15^h to 17^h Fluctuations in H.F.

1901.

- July 24^d 16^h to 19^h Small fluctuations in H.F.
 25^d $21\frac{3}{4}^h$ to 23^h Wave in Dec. ($-3'$).
 26^d $0\frac{3}{4}^h$ to 2^h Wave in H.F. ($+0008$). 15^h to 21^h Small fluctuations in H.F.
 27^d $0\frac{1}{2}^h$ to $1\frac{1}{2}^h$ Small wave in Dec.
 31^d $16\frac{1}{2}^h$ to 20^h Small fluctuations in H.F.
- August 2^d 12^h to 19^h Small fluctuations in H.F.
 3^d 12^h to 13^h Small fluctuations in H.F. 13^h to $13\frac{1}{2}^h$ Increase of H.F. ($+0010$). 16^h to 18^h Double wave in H.F. ($+0008$ to -0009).
 4^d 16^h to 19^h Small fluctuations in H.F.
 5^d 0^h to 2^h Wave in H.F. ($+0008$). 0^h to 3^h Wave in Dec. ($-3'$).
 7^d 18^h to 22^h Sharp fluctuations in H.F. (± 0007).
 8^d $1\frac{1}{2}^h$ to 3^h Small fluctuations in Dec. and H.F.
 10^d $19\frac{1}{2}^h$ to 21^h Small wave in Dec. ($-2'$). $19\frac{3}{4}^h$ to 20^h Decrease of H.F. (-0006).
 12^d $11\frac{1}{2}^h$ to 15^d $11\frac{1}{2}^h$ Loss of Dec. and H.F. registers.
 14^d 5^h to 9^h Small fluctuations in V.F. 15^h to $17\frac{1}{2}^h$ Fluctuations in V.F. $23\frac{1}{2}^h$ to 24^h Decrease of V.F. (-0007).
 15^d 14^h to $14\frac{1}{2}^h$ Wave in H.F. (-0015), followed by fluctuations till 16^h . $14\frac{1}{4}^h$ to $14\frac{3}{4}^h$ Decrease of Dec. ($-5\frac{1}{2}'$). 16^h to $17\frac{1}{2}^h$ Double wave in H.F. (-0019 to $+0009$): wave in Dec. ($-5'$). $16\frac{1}{2}^h$ to 17^h Increase of V.F. ($+0003$). $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Double-crested wave in H.F. (-0012). $19\frac{1}{2}^h$ to 20^h Two successive waves in Dec. ($-4'$) and ($-2'$). $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Irregular wave in H.F. sharp at commencement ($+0020$). $22\frac{1}{4}^h$ to $23\frac{1}{2}^h$ wave in Dec. ($3'$).
 16^d 15^h to 17^h Shallow wave in H.F. (-0008). $20\frac{1}{2}^h$ to 22^h wave in Dec. ($-3'$).
 17^d 1^h to $1\frac{3}{4}^h$ Wave in Dec. ($+3'$).
 18^d 11^h to 19^d 10^h Loss of Dec. and H.F. registers.
 20^d 1^h to 2^h Small wave in Dec. ($+2'$). 13^h to 16^h Fluctuations in Dec. and H.F. $17\frac{1}{4}^h$ to $18\frac{1}{2}^h$ Shallow wave in H.F. ($+0010$). $19\frac{1}{4}^h$ Increase of H.F. ($+0006$). $20\frac{1}{2}^h$ to 21^h Wave in Dec. ($-2\frac{1}{2}'$). 21^h to $21\frac{3}{4}^h$ Wave in H.F. (-0012), followed by small fluctuations till 23^h . $22\frac{1}{2}^h$ to 24^h Prolonged wave in Dec. ($+3'$). 23^h to 24^h Wave in H.F. ($+0008$): decrease of V.F. (-0003).
 22^d 1^h to 2^h Small wave in H.F. ($+0007$). $19\frac{1}{2}^h$ to $21\frac{1}{4}^h$ Wave in Dec. ($-3'$).
 24^d 0^h to 10^h Loss of Dec. and H.F. registers.
 25^d 21^h to 22^h Wave in Dec. ($-2'$). $21\frac{3}{4}^h$ Decrease of H.F. (-0008).
 27^d 5^h to 7^h Wave in Dec. ($+3'$).
 31^d 15^h to 19^h Fluctuations in H.F. (± 0008). $19\frac{3}{4}^h$ Decrease of Dec. ($-5'$): of H.F. (-0015). $20\frac{1}{2}^h$ to 24^h Small fluctuations in H.F.
- September 1^d 11^h to 20^h Loss of Dec., H.F. and V.F. registers.
 5^d $2\frac{1}{2}^h$ to $3\frac{1}{2}^h$ Small wave in Dec. ($+2'$). 21^h to $22\frac{1}{2}^h$ Wave in Dec. ($-2\frac{1}{2}'$): in H.F. small.
 9^d 16^h to 17^h Wave in H.F. (-0007).
 10^d 9^h to 11^d 9^h . See Plate II.
 11^d $15\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Fluctuations in H.F. $16\frac{1}{2}^h$ to 19^h Prolonged wave in Dec. ($-5'$). $22\frac{3}{4}^h$ to $23\frac{3}{4}^h$ Wave in H.F. ($+0008$). 11^d $23\frac{3}{4}^h$ to 12^d $0\frac{3}{4}^h$ Wave in Dec. ($+2'$): in H.F. small.
 12^d 5^h to 8^h Small fluctuations in Dec. and H.F. 17^h to 20^h Wave in Dec. ($-3'$).
 16^d 6^h to 10^h Small sharp fluctuations in Dec. and H.F. 13^h to 15^h Wave in H.F. ($+0010$), followed by small fluctuations till 18^h . $19\frac{1}{2}^h$ to 23^h Wave in H.F. with superposed fluctuations (-0012), followed by a smaller wave till 24^h .

1901.

September 17^d 2^h to 6^h Double wave in Dec. (+ 3' to - 3'). 3^h to 5^h Wave in H.F. (+ .0012) : in V.F. (- .0003).
 10^h to 13¹₂^h Fluctuations in H.F. 21^h to 22¹₂^h Small double wave in Dec. (- 2¹₂' to + 2'), wave in H.F. (+ .0017).
 18^d 0^h to 3^h Double wave in Dec. (+ 3' to - 5'). 0¹₂^h to 4^h Two successive waves in H.F. (+ .0010) and (+ .0006) : wave in V.F. (- .0003).
 21^d 16¹₂^h to 20^h Small fluctuations in H.F.
 23^d 9^h to 11^h Very small fluctuations in Dec. and H.F. 18¹₂^h to 20^h Wave in Dec. (- 2') : small fluctuations in H.F. 22¹₂^h to 23¹₂^h Wave in H.F. (+ .0010) : decrease of Dec. (- 3').
 24^d 0¹₂^h to 3^h Double wave in Dec. (+ 3' to - 3') : wave in H.F. (+ .0008) decrease of V.F. (- .0002). 21¹₂^h to 22¹₂^h Small wave in Dec. (- 2¹₂').
 26^d 12^h to 15^h Small fluctuations in Dec. and H.F.
 27^d 16^h to 17¹₂^h Small wave in H.F. (- .0008).
 29^d 23¹₄^h to 30^d 1^h Shallow wave in H.F. (+ .0008).
 30^d 18^h to 23^h Small fluctuations in Dec. and H.F.

October

4^d 12^h to 17^h Small fluctuations in H.F.
 5^d 0^h to 1^h Wave in Dec. (- 2').
 8^d 6^h to 10^h Fluctuations in Dec. and H.F.
 8^d 12^h to 9^d 12^h. See Plate II.
 9^d 12^h to 18^h Small fluctuations in H.F. 23^h to 24^h Wave in H.F. (+ .0016) : decrease of V.F. (- .0004).
 10^d 18¹₂^h to 19¹₂^h Wave in Dec. (- 4') : in H.F. small.
 11^d 1¹₂^h to 2¹₂^h Small wave in Dec. (+ 2').
 12^d 14^h to 13^d 8^h Loss of Dec. and H.F. registers.
 13^d 11^h to 17^h Fluctuations in H.F. (± .0006) : in Dec. small. 13^d 22¹₂^h to 14^d 2^h Double wave in Dec. (- 3¹₂' to + 4') : double wave in H.F. (- .0008 to + .0012).
 14^d 0¹₂^h to 1^h Decrease of V.F. (- .0003).
 16^d 20¹₂^h to 22¹₂^h Wave in Dec. (- 3'), followed by a smaller wave till 24^h : fluctuations in H.F.
 21^d 5^h to 11¹₂^h Loss of Dec., H.F. and V.F. registers.
 25^d 8¹₂^h to 18^h Small fluctuations in Dec. and H.F. 19^h to 21^h Wave in H.F. (- .0020) : in Dec. small.
 26^d 4^h to 5^h Small wave in Dec. (+ 2¹₂').
 28^d 14^h to 16¹₂^h Shallow wave in H.F. (- .0010) : small fluctuations in Dec.

November 2^d 22³₄^h to 23¹₂^h Wave in H.F. (+ .0008) : in Dec. (- 2').

3^d 21^h to 23¹₂^h Fluctuations in Dec. and H.F.
 4^d 0^h to 2^h Fluctuations in Dec. and H.F. 2¹₂^h to 4^h Wave in H.F. (+ .0020). 3^h to 5^h Wave in Dec. (- 6'). 17¹₂^h to 19^h Wave in H.F. (- .0012). 20¹₂^h to 22^h Wave in Dec. (- 3¹₂').
 5^d 15^h to 15¹₂^h Wave in H.F. (- .0010). 17¹₂^h Decrease of Dec. (- 5'). 17¹₂^h to 18^h Wave in H.F. (- .0008). 18¹₂^h to 19¹₂^h Wave in H.F. (- .0009). 19¹₂^h to 22^h Double wave in H.F. (- .0010 to + .0010). 21^h to 21¹₄^h Decrease of Dec. (- 5') : decrease of V.F. (- .0003).
 6^d 0^h to 3^h Wave in Dec. with superposed fluctuations (- 3'). 14¹₂^h to 16^h Wave in H.F. (- .0010).
 7^d 15^h to 18^h Small fluctuations in Dec. and H.F.
 9^d 13¹₂^h to 14¹₂^h Wave in H.F. (+ .0006). 14¹₂^h to 16^h Wave in Dec. (- 3').
 11^d 11^h to 17^h Fluctuations in Dec. and H.F. 17¹₂^h to 19¹₂^h Wave in Dec. (- 5'). 18^h to 19^h Wave in H.F. (+ .0010). 23^h to 24^h Wave in H.F. (+ .0010) : in Dec. small.
 12^d 0¹₂^h to 1¹₂^h Wave in H.F. (+ .0007) : in Dec. (+ 2¹₂').
 16^d 20^h to 23^h Small fluctuations in H.F. 20¹₂^h to 23^h Double wave in Dec. (- 4' to + 2').

1901.

- November 19^d 7¹₂^h to 9¹₂^h Wave in H.F. (- .0010). 9^h to 12^h Small fluctuations in Dec. 11^h to 12^h Fluctuations in H.F. (\pm .0005). 16^h to 17¹₂^h Wave in H.F. (- .0020): in Dec. small: increase of V.F. (+ .0003). 17¹₂^h to 18¹₂^h Wave in Dec. (- 2'). 23^h to 24^h Wave in Dec. (- 3'): in H.F. (+ .0012).
- 20^d 1^h to 2^h Wave in Dec. (+ 3').
- 21^d 23¹₂^h to 24^h Small sharp wave in H.F. (+ .0008).
- 23^d 13^h to 14¹₂^h Wave in V.F. (- .0003).
- 25^d 10^h to 14^h Loss of Dec. and H.F. registers. 10^h to 16¹₂^h Loss of V.F. register.
- 26^d 1^h to 3^h Shallow wave in Dec. (+ 2').
- 28^d 13^h to 29^d 11^h Loss of Dec. and H.F. registers.

December 1^d 20^h to 21^h Double wave in H.F. (+ .0008 to - .0010).

- 2^d 3¹₂^h to 4¹₂^h Small double wave in Dec. (+ 2' to - 2'). 8^h to 10^h Small fluctuations in H.F. 14^h to 18^h Prolonged wave in H.F. (- .0014). 15¹₂^h to 18^h Two successive waves in Dec. (+ 2') and (+ 3'). 21¹₂^h to 23^h Serrated wave in H.F. (+ .0014): two successive waves in Dec. (- 3') and (- 3').
- 3^d 1^h to 3^h Wave in Dec. (- 2'): in H.F. small.
- 4^d 19¹₂^h to 23^h Small fluctuations in Dec. and H.F.
- 5^d 13^h to 20^h Small fluctuations in Dec. and H.F.
- 9^d 9^h to 13^h Small fluctuations in Dec., H.F. and V.F. 15¹₂^h to 17¹₂^h Wave in H.F. (- .0010). 16¹₂^h to 17¹₂^h Wave in Dec. (- 2¹₂'). 20¹₂^h to 21¹₂^h Wave in Dec. (- 3'). 22³₄^h to 23¹₂^h Wave in Dec. (+ 3'): in H.F. (+ .0014): small decrease of V.F.
- 24^d 20¹₂^h to 23^h Irregular wave in Dec. (- 3'): Double wave in H.F. (+ .0007 to - .0007).
- 26^d 20¹₂^h to 21¹₂^h Small wave in Dec. (- 2').
- 27^d 9³₄^h Decrease of H.F. (- .0007): small increase of V.F. 18^h to 20^h Prolonged wave in H.F. (- .0012): fluctuations in Dec. 23^h to 24^h Wave in Dec. (- 5'). 27^d 23^h to 28^d 1^h Double wave in H.F. (+ .0010 to - .0008).
- 28^d 3^h to 5^h Wave in Dec. (- 3'). 7^h to 9^h Fluctuations in Dec. (\pm 1'): in H.F. (\pm .0005). 9^h to 11^h Wave in H.F. with superposed fluctuations (- .0016). 10^h to 11^h Wave in Dec. (+ 3'). 12^h to 14^h Fluctuations in Dec. and H.F. 14^h to 16^h Wave in H.F. (- .0040). 14¹₂^h to 16¹₂^h Double wave in Dec. (- 9' to +4'): wave in V.F. (+ .0005). 16¹₂^h to 18^h Two successive waves in H.F. (+ .0010) and (+ .0008). 18^h to 19^h Wave in Dec. (- 3'). 22^h to 23¹₄^h Wave in Dec. (+ 3'): in H.F. (+ .0016): decrease of V.F. (- .0003).
- 29^d 11¹₂^h to 14^h Fluctuations in Dec. and H.F. 20¹₂^h to 21¹₂^h Wave in Dec. (- 4').

EXPLANATION OF THE PLATES.

The magnetic motions figured on the Plates are :—

- (1.) Those for days of great disturbance—None in 1901.
- (2.) Those for days of lesser disturbance—January 5–6, 22–23, February 22–23, March 24–25, May 10^d 7^h to 11^d 7^h, July 11–12, September 10^d 9^h to 11^d 9^h, October 8–9.
- (3.) Those for four quiet days—January 13, May 5, August 11, November 1—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 '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, 0.001 of a C.G.S. unit being represented by 0ⁱⁿ.80 = 20.3 in the declination curve, by 0ⁱⁿ.73 = 18.7 in the horizontal force curve, and by 0ⁱⁿ.75 = 19.0 in the vertical force curve.

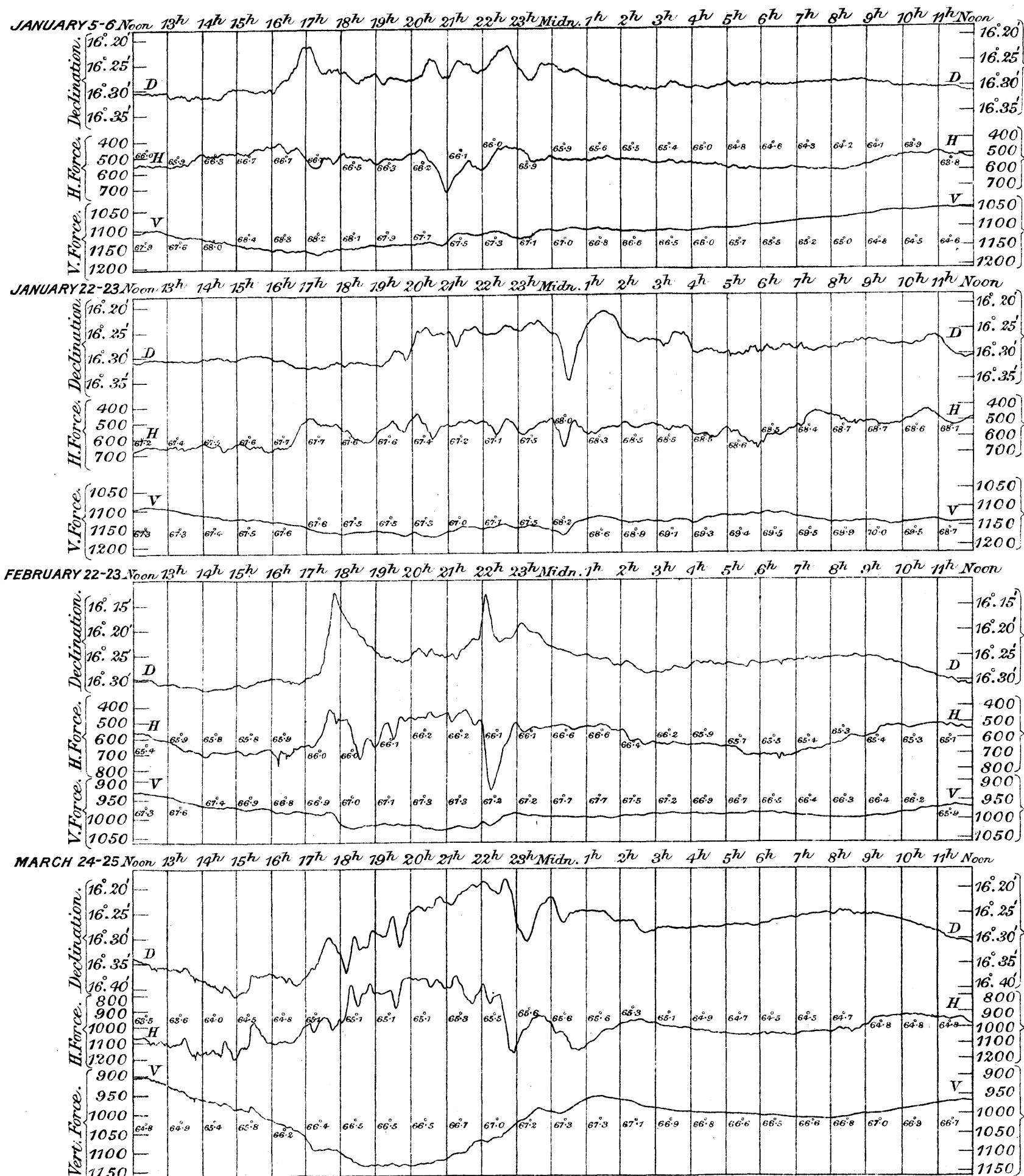
Downward motion indicates increase of declination and of horizontal and vertical force.

The earth current registers are not given on the plates in consequence of interference with the records caused by the running of trains on the City and South London Electric Railway.

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

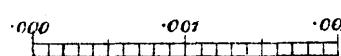
The temperatures (Fahrenheit) of the horizontal and vertical force magnets at each hour are given in small figures on the Diagrams.

Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1901.

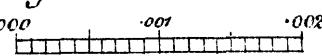


E. Weller & Grahams, Ltd. Litho. London.

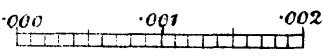
Scales for Magnetic Elements in C.G.S. measure.



Declination.

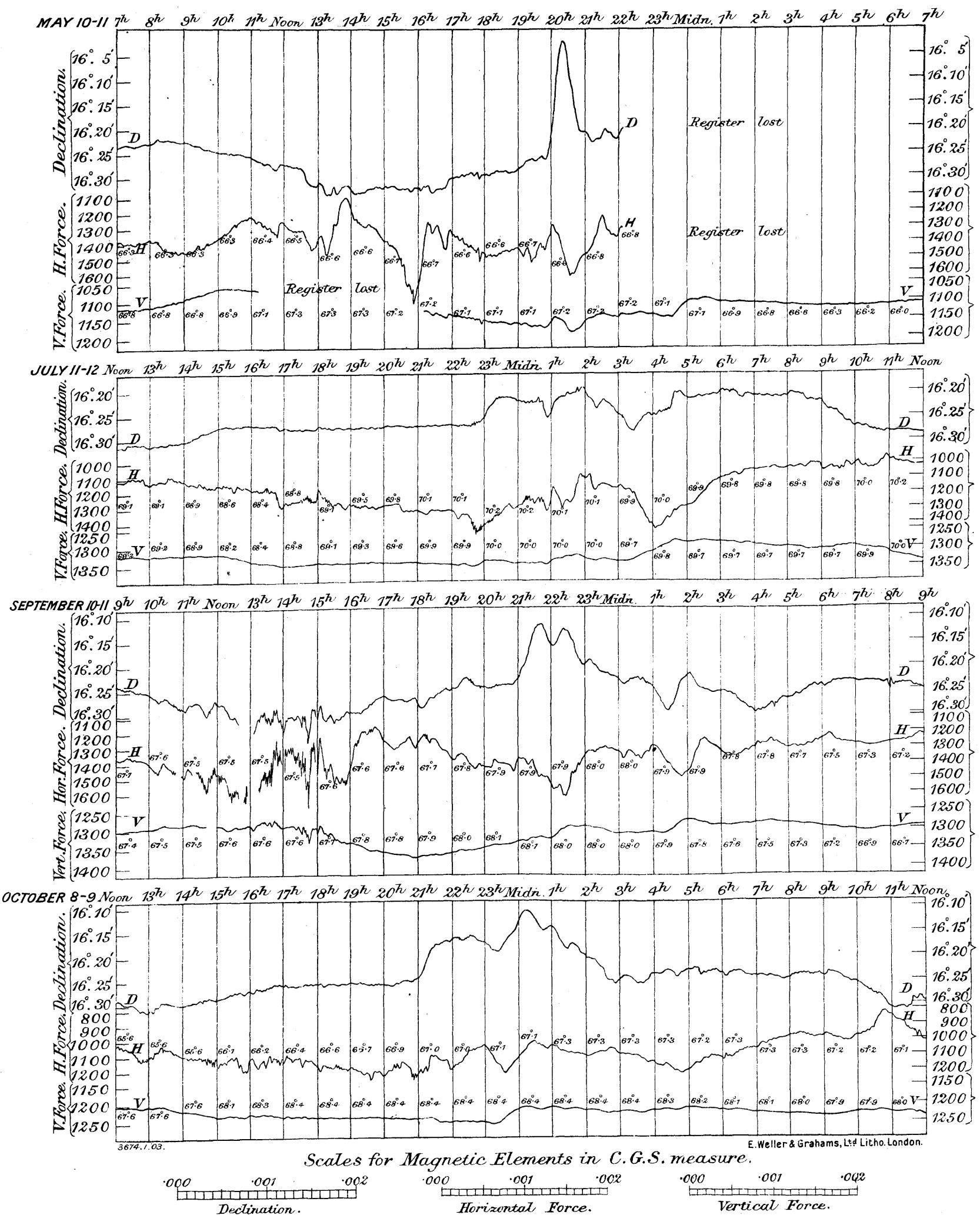


Horizontal Force.

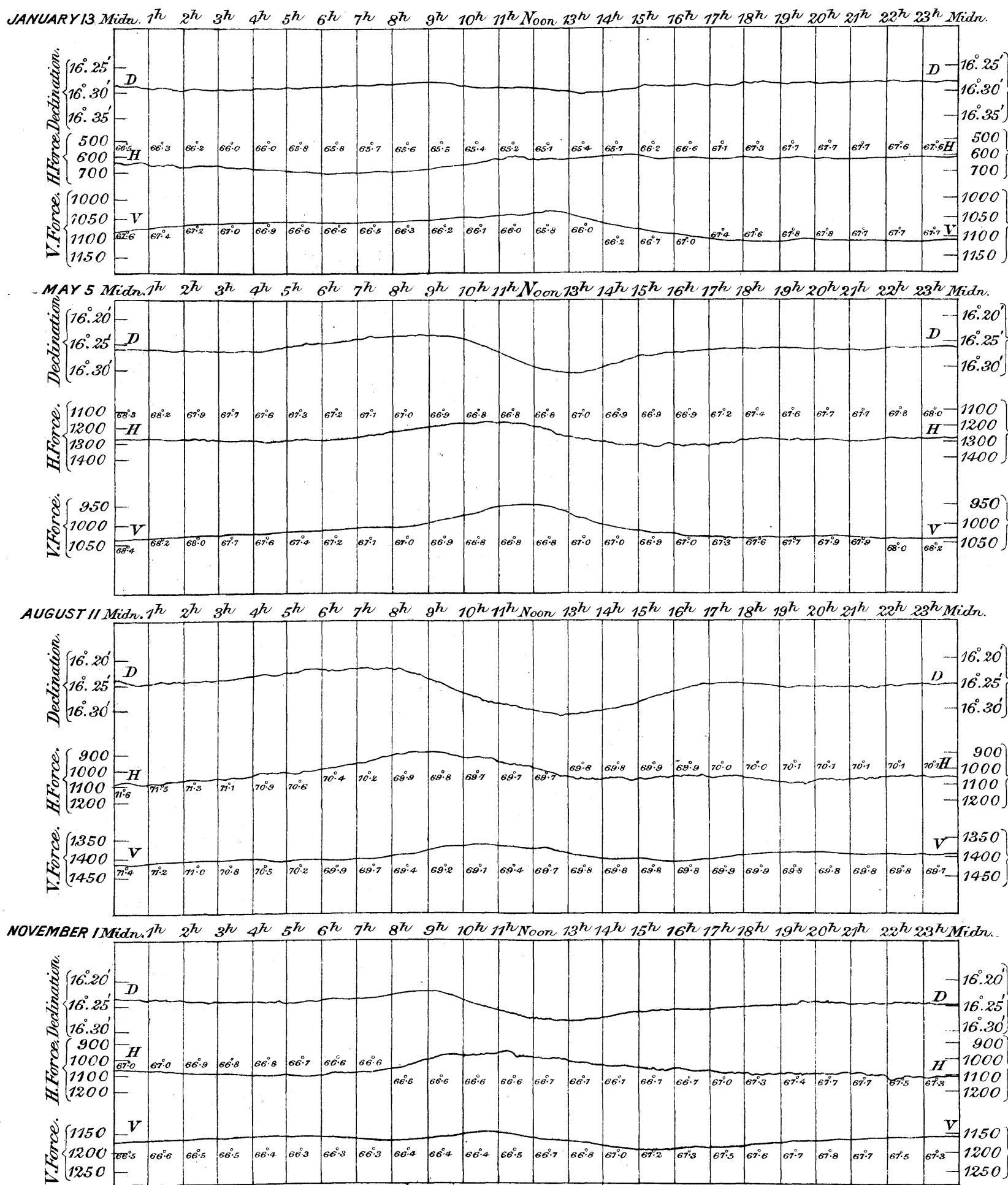


Vertical Force.

Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1901.

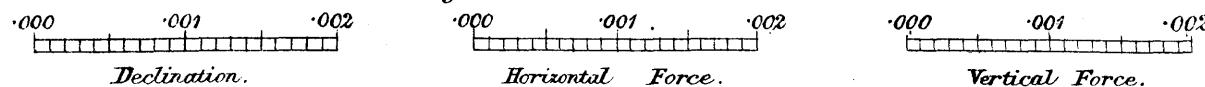


*Types of Magnetic Diurnal Variations at four seasons of the Year
recorded at the Royal Observatory, Greenwich, 1901.*



E. Weller & Grahams, Ltd Litho. London.

Scales for Magnetic Elements in C.G.S. measure.



3674.1.03

ROYAL OBSERVATORY, GREENWICH.

R E S U L T S

OF

METEOROLOGICAL OBSERVATIONS.

1901.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

MONTH and DAY, 1901.	Phases of the Moon.	BARO- METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahr.-scale).	TEMPERATURE.								Difference between the Air Temperature and Dew Point Temperature.	TEMPERATURE. Of Radiation.	Rain collected in Gauge No. 6 whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.				
			Of the Air.				Of Evapo- ration.	Of the Dew Point.	Degree of Humidity (Saturation = 100).									
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.			Mean.	Greatest.	Least.							
Jan. 1	...	29.865 in.	39.9	36.0	3.9	37.7	- 0.8	36.9	35.8	1.9	4.4	0.9	93	46.5	35.5 0.022	0.0 mP		
2	...	30.057	40.9	34.6	6.3	37.7	- 0.8	37.4	37.0	0.7	3.4	0.2	97	44.8	30.8 0.000	0.0 mP		
3	Greatest Declination N.	30.201	39.2	34.3	4.9	37.4	- 1.1	37.1	36.7	0.7	2.1	0.5	97	44.2	30.4 0.006*	0.0 mP		
4	...	30.266	40.7	28.8	11.9	36.4	- 2.0	35.9	35.2	1.2	6.4	0.0	96	64.0	22.0 0.002*	0.0 wP : mP : mP		
5	Full	30.260	36.1	24.1	12.0	31.1	- 7.2	30.1	27.5	3.6	8.7	0.0	85	62.8	17.6 0.000	0.0 sP : mP : wP		
6	...	30.038	31.8	25.5	6.3	29.3	- 8.9	27.5	21.3	8.0	12.2	2.0	71	45.2	22.8 0.000	0.0 wP		
7	...	29.937	30.2	23.6	6.6	27.4	- 10.7	26.5	22.7	4.7	6.7	0.0	82	34.5	21.5 0.127	0.2 wP		
8	...	29.735	32.1	23.3	8.8	28.3	- 9.7	27.7	25.4	2.9	4.2	0.5	88	53.2	21.0 0.103	0.8 ... : ... : vP, ssN		
9	...	29.678	42.9	21.0	21.9	33.7	- 4.2	32.8	31.2	2.5	8.2	1.4	89	52.9	21.0 0.000	0.0 mP		
10	In Equator	29.763	49.3	36.5	12.8	42.1	+ 4.2	40.9	39.5	2.6	7.6	0.5	91	94.4	31.3 0.000	0.0 wP		
11	...	29.913	45.1	36.8	8.3	40.6	+ 2.7	40.3	39.9	0.7	2.4	0.2	99	53.6	31.0 0.000	0.0 wP		
12	Apogee; Last Quarter	30.158	41.4	38.2	3.2	39.9	+ 2.0	39.5	39.0	0.9	1.6	0.0	98	43.0	34.3 0.000	0.5 vP, wwN : wwP		
13	...	30.296	42.5	35.4	7.1	40.8	+ 2.8	39.9	38.8	2.0	3.7	1.6	93	52.2	31.0 0.005*	1.5 wwP : wwP : wP		
14	...	30.268	44.8	29.3	15.5	35.6	- 2.6	33.6	30.6	5.0	11.0	0.0	81	82.2	20.6 0.000	0.0 mP : mP : sP		
15	...	30.026	38.9	27.9	11.0	32.9	- 5.4	31.4	28.4	4.5	6.7	1.3	83	74.6	18.7 0.000	0.0 mP : wP		
16	...	29.733	46.6	29.2	17.4	39.5	+ 1.0	38.6	37.4	2.1	4.8	0.4	93	70.4	18.0 0.052	0.5 wP : wN, wP		
17	Greatest Declination S.	29.901	48.2	38.2	10.0	45.4	+ 6.9	44.3	43.0	2.4	4.6	1.1	92	57.2	30.0 0.000	1.5 wwp : wP		
18	...	29.929	47.9	36.4	11.5	42.3	+ 3.8	41.5	40.5	1.8	3.2	0.7	94	70.5	27.8 0.064	1.0 wP : wP, vN : wP		
19	...	29.499	48.2	42.3	5.9	44.6	+ 6.1	43.2	41.6	3.0	7.4	1.5	89	49.7	36.3 0.109	6.0 wwP : vN, wwP : wwP		
20	New	29.770	49.4	38.1	11.3	44.4	+ 6.0	41.4	37.9	6.5	9.0	3.6	77	74.0	32.5 0.001	0.0 wP : mP : wP		
21	...	30.056	52.4	48.0	4.4	50.3	+ 12.0	48.2	46.0	4.3	6.6	2.7	86	67.1	44.5 0.000	0.0 wP		
22	...	30.093	50.0	47.5	2.5	49.0	+ 10.7	46.1	43.0	6.0	8.0	3.4	80	52.9	41.0 0.000	0.0 wP		
23	...	30.378	47.5	32.7	14.8	40.3	+ 1.9	38.3	35.7	4.6	9.7	1.4	84	74.0	24.7 0.000	0.0 wP : mP : mP		
24	In Equator: Perigee	30.019	47.2	35.0	12.2	42.5	+ 4.0	41.4	40.1	2.4	4.4	0.5	91	51.2	28.5 0.096	0.0 mP : wP, vN		
25	...	29.890	47.2	37.5	9.7	43.6	+ 4.8	40.5	36.8	6.8	11.3	3.8	77	79.4	31.6 0.069	0.2 wP : mP : vN, wP		
26	...	29.693	49.2	36.3	12.9	41.7	+ 2.7	39.3	36.3	5.4	9.2	2.4	82	69.0	29.8 0.006	0.8 wP : mP : wP		
-	First Quarter	29.242	54.1	36.8	17.3	48.7	+ 9.4	45.6	42.3	6.4	12.2	3.8	79	68.6	33.2 0.067	0.0 wwP : wP, mN : vP, vN		
...	...	29.315	40.1	34.2	5.9	37.1	- 2.4	34.8	31.6	5.5	10.8	2.6	81	55.2	28.4 0.033	0.0 wP : vP, vN : mP, ssN		
...	...	29.326	38.2	29.5	8.7	34.2	- 5.5	31.6	27.2	7.0	9.8	2.0	75	64.3	23.3 0.000	0.0 mP		
...	Greatest Declination N.	29.239	39.5	31.2	8.3	35.0	- 4.8	32.7	29.0	6.0	9.4	0.3	78	67.5	25.4 0.000	0.0 mP : sP		
31	...	29.307	36.9	30.4	6.5	32.9	- 6.9	31.7	29.3	3.6	5.5	1.1	86	45.7	24.9 0.000	0.0 mP : wP		
Means	...	29.866	43.2	33.5	9.7	38.8	+ 0.3	37.3	35.1	3.7	6.9	1.3	86.7	60.2	28.0 0.762	0.4 ...		
Number of Columns 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 50 years' observations, 1841-1890. 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). The amounts entered on January 3, 4 and 13 are derived from fog.

The mean reading of the Barometer for the month was 29 in. 866, being 0 in. 088 higher than the average for the 50 years, 1841-1890.

TEMPERATURE OF THE AIR.

The highest in the month was 54°.1 on January 27; the lowest in the month was 21°.0 on January 9; and the range was 33°.1.

The mean of all the highest daily readings in the month was 43°.2, being 0°.1 higher than the average for the 50 years, 1841-1890.

The mean of all the lowest daily readings in the month was 33°.5, being 0°.1 lower than the average for the 50 years, 1841-1890.

The mean of the daily ranges was 9°.7, being 0°.2 greater than the average for the 50 years, 1841-1890.

The mean for the month was 38°.8, being 0°.3 higher than the average for the 50 years, 1841-1890.

Electricity.

MONTH and DAY, 1901.	Daily Duration of Sunshine. Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.				
		OSLER'S.				ROBINSON'S.			A.M.		P.M.		
		General Direction.		Pressure on the Square Foot.		Greatest.	Least.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.				
		A.M.	P.M.										
Jan. 1	hours, hours.	o.0	7.9	NE : W : SW	SSW : NNW	lbs.	lbs.	lbs.	miles.	10, m.-r : 10	: 10, oc.-slt.-r	10, m.-r, gt.-glm	: 10
2		o.0	7.9	NNW : WSW	WSW : SW	o.3	o.0	o.00	116	10 : 10	: 2, ci.-cu, li.-cl	6, th.-cl, m : 9, th.-cl, silt.-f	: li.-cl, silt.-f
3		o.0	7.9	WSW : NNE	N : NNE	o.3	o.0	o.00	129	p.-cl, silt.-f : 10, f	: 10, f	10, silt.-f	: 10
4	o.7	7.9	Variable : Calm	SE : NE	SE : NE	o.0	o.0	o.00	81	9, silt.-f : 10	: 9	2, cu, th.-cl : o	: o, ho.-fr, tk.-f
5	o.9	7.9	NE : Calm	ENE	ENE	5.6	o.0	o.22	199	ho.-fr, tk.-f : ho.-fr, tk.-f : o, silt.-f	10	10	: 9
6	1.2	8.0	ENE	ENE : ESE	ENE : ESE	14.1	o.0	1.72	516	o, w : 9, st.-w	9, w : 10, oc.-sn	9, w : 10, oc.-sn	: 10
7	o.0	8.0	ESE : NNE	E : ESE	E : ESE	1.1	o.0	o.02	176	10 : 10, sn	10, oc.-sn : 10	10, oc.-sn : 10	: p.-cl, lu.-co
8	o.0	8.0	E : ENE	ESE : SE : S	ESE : SE : S	1.9	o.0	o.05	192	10 : 10, sn : 10, sn	8 : p.-cl, silt.-sn : 10	8 : p.-cl, silt.-sn : 10	
9	1.4	8.1	S : ENE : E	E : SE : S	E : SE : S	1.0	o.0	o.03	179	10 : 10	5, ci.-s, cu.-s, th.-cl : 3, ci.-s, th.-cl : v	5, ci.-s, cu.-s, th.-cl : 3, ci.-s, th.-cl : v	
10	6.1	8.1	S : SSE	SSE : ESE : E	SSE : ESE : E	1.5	o.0	o.06	211	p.-cl : 6, cu, ci.-cu, th.-cl	3, ci.-s, th.-cl : 1, th.-cl, hy.-d : 10, silt.-f	3, ci.-s, th.-cl : 1, th.-cl, hy.-d : 10, silt.-f	
11	o.0	8.1	SE : Calm	SE : Calm	SE : Calm	0.1	o.0	o.00	79	p.-cl, silt.-f : 10	10	10	: 10, silt.-f
12	o.0	8.2	Calm	E : ESE	E : ESE	0.1	o.0	o.00	74	10, f : 10, f : 10, gt.-glm, f	10, silt.-f : 10	10, silt.-f : 10	
13	o.0	8.2	SE : SSE	SE	SE	1.7	o.0	o.06	185	10, m : 10	10	10	
14	5.3	8.2	SE : ESE : E	ESE	ESE	0.8	o.0	o.01	146	o, silt.-f, ho.-fr : 2, ci.-s, cu.-s, li.-cl	5, ci.-s, th.-cl : 10, ho.-fr, silt.-m	5, ci.-s, th.-cl : 10, ho.-fr, silt.-m	
15	6.2	8.3	ESE : E	ESE	ESE	1.7	o.0	o.08	193	o, ho.-fr : o, ho.-fr : o	o	o	: o, ho.-fr
16	o.7	8.3	ESE : SE	SSE : S	SSE : S	4.3	o.0	0.35	298	o, ho.-fr : o : 9, oc.-slt.-r	10, oc.-slt.-r : 10, oc.-slt.-r	10, oc.-slt.-r : 10, oc.-slt.-r	
17	o.0	8.4	S	S : SSE	S : SSE	1.2	o.0	o.03	186	10 : 10	8, ci.-eu, li.-el : 5, li.-cl, d : 1, silt.-f	8, ci.-eu, li.-el : 5, li.-cl, d : 1, silt.-f	
18	1.1	8.4	Calm : S : SSW	SSW	SSW	1.7	o.0	o.06	224	10 : 10, silt.-f : 10, r	p.-cl : v	10 : 10, silt.-f : 10, r	
19	o.0	8.5	S : SSE	SSW : SW : W	SSW : SW : W	22.6	o.0	1.94	587	p.-cl : 10, silt.-r : 10, sc, r, w	10, sc, silt.-r, st.-w : 10, sc, r, w	10, sc, silt.-r, st.-w : 10, sc, r, w	
20	3.7	8.5	W : WSW	WSW	WSW	8.7	o.0	1.30	558	p.-cl, w : o : 3, cu, th.-cl	p.-cl : 10, oc.-slt.-r, w : 10	p.-cl : 10, oc.-slt.-r, w : 10	
21	o.2	8.5	WSW : SW	WSW : SW	WSW : SW	3.6	o.0	0.27	337	9 : 10	10, silt.-r : 10	10, silt.-r : 10	
22	o.0	8.6	WSW	WSW : W	WSW : W	7.6	o.0	1.12	521	10 : 10 : 10, sc, w	10 : 10 : 10, sc, w	10 : 10 : 10, sc, w	
23	2.7	8.6	N : NE : E	ENE : ESE	ENE : ESE	0.5	o.0	0.00	140	p.-cl : o, ho.-fr, silt.-f : 5, ci.-cu, li.-cl	9, cu, ci.-cu, li.-cl : 10	9, cu, ci.-cu, li.-cl : 10	: 8, silt.-f
24	o.0	8.7	ESE : SE : SSE	SW	SW	3.9	o.0	0.16	243	f : 10, silt.-f : 10, silt.-f, fq.-th.-r	10 : p.-cl, silt.-r : 10, r, w	10 : p.-cl, silt.-r : 10, r, w	
25	3.6	8.7	SW : WSW : W	SW : WSW	SW : WSW	9.9	o.0	1.33	578	v, w : o : p.-cl, w	9, cu, w : vv, fq-shs, lu-ha : p.-cl, sc, th.-r, w	9, cu, w : vv, fq-shs, lu-ha : p.-cl, sc, th.-r, w	
26	2.4	8.7	WSW	WSW : SW	WSW : SW	7.6	o.0	1.52	610	o, ho.-fr : o : 7, w	9, w : 10, oc.-slt.-r, w : 10, w	9, w : 10, oc.-slt.-r, w : 10, w	
27	o.6	8.8	WSW	W : WNW	W : WNW	34.4	o.0	4.10	973	9, w : 10, sc, st.-w	10, hy.-sh, hl, w : v, shs.-r, g : o, st.-w	10, hy.-sh, hl, w : v, shs.-r, g : o, st.-w	
28	o.5	8.9	W : WSW	W : WSW : NNW	W : WSW : NNW	16.7	o.0	1.47	596	p.-cl, w : 10 : 10, oc.-slt.-r, sl	9, sc, sh.-r : 10, silt.-r, w : v, hy.-sh, sl, lu-co	9, sc, sh.-r : 10, silt.-r, w : v, hy.-sh, sl, lu-co	
29	3.4	8.9	NNW : W : WSW	WNW : W : WSW	WNW : W : WSW	8.0	o.0	0.78	465	p.-cl : o, ho.-fr, w : 5, li.-cl, w	4, cu, th.-cl : li.-cl, fr, lu-ha, w	4, cu, th.-cl : li.-cl, fr, lu-ha, w	
30	1.0	9.0	WSW	W : WSW	W : WSW	3.6	o.0	0.41	373	p.-cl, ho.-fr : 6, cu	p.-cl : 9	p.-cl : 9	
31	o.1	9.0	WSW : SW	WSW : SW	WSW : SW	o.7	o.0	0.01	217	p.-cl, ho.-fr : 9	9, glm : p.-cl, silt.-sn, f, ho.-fr	9, glm : p.-cl, silt.-sn, f, ho.-fr	
Means		1.3	8.4	...	...	...	...	0.55	308			27	28
Number of Column for Reference.		19	20	21	22	23	24	25	26				

The mean Temperature of Evaporation for the month was $37^{\circ}3$, being $o.1$ higher than The mean Temperature of the Dew Point for the month was $35^{\circ}1$, being $o.3$ lower than The mean Degree of Humidity for the month was 86.7 , being 2.1 less than The mean Elastic Force of Vapour for the month was $o^{in}204$, being $o^{in}003$ less than The mean Weight of Vapour in a Cubic Foot of Air for the month was $2grs4$, being the same as The mean Weight of a Cubic Foot of Air for the month was 555 grains, being 1 grain greater than The mean amount of Cloud for the month (a clear sky being represented by o, and an overcast sky by 10) was 7.7.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was $o.161$. The maximum daily amount of Sunshine was 6.2 hours on January 15.

The highest reading of the Solar Radiation Thermometer was $94^{\circ}4$ on January 10; and the lowest reading of the Terrestrial Radiation Thermometer was $17^{\circ}6$ on January 5.

The mean daily distribution of Ozone for the 12 hours ending 9^h was $o.3$; for the 6 hours ending 15^h was $o.0$; and for the 6 hours ending 21^h was $o.1$.

The Proportions of Wind referred to the cardinal points were N. 3, E. 8, S. 9, and W. 9. Two days were calm.

The Greatest Pressure of the Wind in the month was 34.4 lbs. on the square foot on January 27. The mean daily Horizontal Movement of the Air for the month was 308 miles; the greatest daily value was 973 miles on January 27; and the least daily value was 74 miles on January 12.

Rain fell on 11 days in the month, amounting to $o^{in}762$, as measured by gauge No. 6 partly sunk below the ground; being $1^{in}227$ less than the average fall for the 50 years, 1841-1890.

} the average for the 50 years, 1841-1890.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

MONTH and DAY, 1901.	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. Of Radiation.	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.	Of the Dew Point.	Degree of Humidity (Saturation = 100).												
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean.	Greatest.	Least.										
Feb. 1	...	in.	38.8	30.0	8.8	33.2	- 6.5	31.7	28.8	4.4	7.4	0.8	83	66.4	22.2	0.000	0.0	mP vP : vP, wwN : mP wP : mP				
2	...	29.552	42.8	30.5	12.3	36.7	- 3.0	34.7	31.8	4.9	7.6	2.7	83	62.6	23.9	0.003	0.0	vP : sP vP, vN : mP mP : mP : sP				
3	Full	29.395	38.6	30.9	7.7	35.4	- 4.3	33.8	31.3	4.1	6.0	3.4	85	52.4	27.3	0.000	0.0	mP : sP : vP mP				
4	...	29.430	36.5	23.8	12.7	31.3	- 8.5	30.3	27.8	3.5	7.0	0.6	85	62.3	22.2	0.099	0.0	vP : sP vP, vN : mP mP : mP : sP				
5	...	29.286	34.9	31.2	3.7	33.1	- 6.7	32.4	31.0	2.1	3.7	0.0	92	45.3	29.3	0.360	0.0	sP : sP : vP mP				
6	In Equator	29.216	37.9	30.5	7.4	34.7	- 5.0	33.2	30.7	4.0	6.7	1.3	85	66.6	27.1	0.000	0.0	mP : sP : sP				
7	...	29.773	30.091	37.6	27.5	10.1	33.3	- 6.1	31.5	28.1	5.2	10.6	2.1	81	56.2	23.2	0.000	0.0	sP : sP : vP mP			
8	...	30.165	40.5	27.5	13.0	35.3	- 3.8	33.7	31.2	4.1	5.1	2.9	85	59.0	23.2	0.000	0.0	mP				
9	Apogee	30.209	41.5	36.1	5.4	38.7	0.0	37.0	34.7	4.0	7.6	1.5	86	46.7	33.9	0.005	0.0	mP				
10	...	30.306	41.4	36.6	4.8	39.3	+ 0.9	36.9	33.8	5.5	9.2	3.0	81	56.7	33.2	0.003	0.0	mP, sN : mP : mP wP : vP : sP ssP				
11	Last Quarter	30.168	38.6	29.6	9.0	35.8	- 2.5	33.6	30.3	5.5	9.6	5.0	80	57.7	22.0	0.000	0.0	sP : vP : sP sP, ssN : sP : sP				
12	...	30.093	37.0	27.1	9.9	32.1	- 6.4	29.4	23.3	8.8	11.2	5.4	68	73.3	20.2	0.000	0.5	mP : vP : mP mP : vP, vN : mP mP : sP : sP				
13	Greatest Declination S.	30.149	35.9	25.0	10.9	31.9	- 6.9	30.0	25.6	6.3	11.3	1.3	77	53.8	20.1	0.003	1.5	sP : vP : sP sP : ssP				
14	...	30.323	33.7	20.4	13.3	28.5	- 10.7	26.4	18.4	10.1	18.1	2.4	65	61.6	18.1	0.002	0.0	sP, ssN : sP : sP				
15	...	30.372	34.7	23.3	11.4	29.7	- 9.9	26.9	17.8	11.9	12.9	1.9	59	79.0	14.0	0.003	0.0	mP : vP : mP mP : vP, vN : mP mP : sP : sP				
16	...	30.236	41.9	25.0	16.9	35.7	- 4.1	33.2	29.4	6.3	9.4	3.2	77	54.4	16.0	0.029	0.2	wP				
17	...	30.059	39.9	31.8	8.1	35.9	- 3.9	33.6	30.1	5.8	10.8	3.7	79	82.0	26.7	0.012	0.8	wP				
18	...	30.215	37.0	30.7	6.3	33.5	- 6.2	31.5	27.8	5.7	9.9	0.7	79	69.0	23.8	0.000	0.0	wP				
19	New	30.094	33.3	30.6	2.7	32.3	- 7.3	31.6	30.1	2.2	4.3	0.0	91	41.0	23.6	0.042	0.0	vP : vP : vP, ssN mP : vP : ssP ssP : ssP : vP, wwN				
20	In Equator	30.115	36.4	27.9	8.5	31.3	- 8.2	29.0	23.2	8.1	11.2	3.6	70	67.8	21.0	0.004	0.0	mP : vP : ssP				
21	Perigee	30.117	37.4	26.1	11.3	31.7	- 7.8	29.5	24.3	7.4	11.3	0.3	72	48.8	18.6	0.087	0.0	wP				
22	...	30.063	44.1	37.4	6.7	39.9	+ 0.3	38.2	36.0	3.9	7.4	0.5	86	63.2	31.7	0.000	0.0	wP				
23	...	29.967	45.7	37.3	8.4	41.1	+ 1.3	39.1	36.6	4.5	6.8	1.6	84	57.2	31.8	0.006	0.2	wP				
24	...	29.812	45.4	38.1	7.3	42.0	+ 2.1	39.9	37.3	4.7	8.4	1.4	84	56.2	34.6	0.000	0.8	wP				
25	First Quarter	29.564	47.7	38.7	9.0	42.6	+ 2.6	40.7	38.4	4.2	7.8	2.1	86	82.0	29.6	0.000	0.0	wP : wP, vN wwP : wP, vN				
26	Greatest Declination N.	29.375	45.0	38.5	6.5	42.4	+ 2.3	40.6	38.4	4.0	10.6	1.8	86	60.7	29.3	0.025	0.0	wwP, vN : wwp				
27	...	29.187	47.5	42.6	4.9	44.9	+ 4.8	43.4	41.7	3.2	6.5	2.0	89	57.0	36.3	0.174	0.0	wP : wwp				
28	...	29.361	52.3	38.4	13.9	44.7	+ 4.5	42.3	39.5	5.2	11.8	1.8	82	98.0	29.9	0.008	0.2	18				
Means	...	29.882	40.1	31.2	9.0	36.0	- 3.5	34.1	30.6	5.3	8.9	2.0	80.7	62.0	25.5	0.865	0.1	...				
Number of Column for Reference.	I	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 50 years' observations, 1841-1890. 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 in. 882, being 0 in. 083 higher than the average for the 50 years, 1841-1890.

TEMPERATURE OF THE AIR.

The highest in the month was 52°.3 on February 28; the lowest in the month was 20°.4 on February 14; and the range was 31°.9.

The mean of all the highest daily readings in the month was 40°.1, being 5°.2 lower than the average for the 50 years, 1841-1890.

The mean of all the lowest daily readings in the month was 31°.2, being 3°.1 lower than the average for the 50 years, 1841-1890.

The mean of the daily ranges was 9°.0, being 2°.0 less than the average for the 50 years, 1841-1890.

The mean for the month was 36°.0, being 3°.5 lower than the average for the 50 years, 1841-1890.

MONTH and DAY, 1901.	Daily Duration of Sunshine. Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.				
		OSLER'S.				ROBINSON'S.			A.M.		P.M.		
		General Direction.		Pressure on the Square Foot.		Greatest.	Least.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.				
		A.M.	P.M.										
Feb.	hours. hours.												
1	1'3	9'1	WSW : SW	WSW : SW	lbs.	lbs.	lbs.	miles.	p-cl, f, ho-fr : 9	8, cu, li-cl : th-cl, lu-ha, ho-fr			
2	0'0	9'2	SSW : S : SSE	S : SE : ESE	0'6	0'0	0'01	221	p-cl, ho-fr : p-cl : 9, oc-slt-r, so-ha	10, oc-slt-r : 9			
3	0'0	9'2	ESE : E : ENE	ENE : NE	1'9	0'0	0'14	257	p-cl : 10	9, cu : 9, oc-th-r : p-cl			
4	1'0	9'3	Variable : SW	SW : Variable	1'0	0'0	0'02	179	9, ho-fr : 10, slt-f : 10	p-cl, so-ha : 10, sn : 10, sn			
5	0'0	9'3	ENE : NNE : N	N	4'0	0'0	0'72	453	10, sn, w : 10 : 9	10 : p-cl			
6	0'8	9'4	N : NNE	NNE : N	2'6	0'0	0'24	314	p-cl : 5, cu, li-cl	5, cu, ci-eu : li-cl : 10			
7	0'4	9'4	N : NNW	NW : WNW : Variable	1'7	0'0	0'07	189	9 : p-cl : 5, cl-eu, ct-s, h, glm	5, cu, th-cl, h : 5, cu-s, ci-s, h : 8, f			
8	0'0	9'5	SW : S	SW : SSW	0'1	0'0	0'00	134	10, f : 9, slt-f	10, slt-f : 10			
9	0'0	9'5	SW : WSW	W : NW : NNW	1'0	0'0	0'04	202	10, slt-f : 10, oc-slt-r	10 : 10			
10	0'0	9'6	NNW : N	N : NNW : WSW	0'7	0'0	0'02	175	10 : 10, sh-r : 10, sc	10, sc : 10			
11	0'7	9'7	W : N : NNE	NE : NNE : N	2'0	0'0	0'15	258	10 : 10, sc, slt-sn	9, cu, ci-eu, slt-sn : o, ho-fr			
12	4'4	9'7	N : NNW	N : NNW	2'5	0'0	0'22	279	o, ho-fr : 3, cu, th-cl	3, cu, th-cl : o : p-cl, ho-fr			
13	1'0	9'8	NNW : NW : NNE	ESE : ENE	2'6	0'0	0'20	272	p-cl : 9	8, cu, ci-eu, sn : 3, th-cl : o			
14	2'0	9'9	NE : N	N	2'3	0'0	0'12	188	p-cl, fr : p-cl : th-cl, gt-glm, tk-f	6, ci-eu, th-cl, slt-sn : th-cl			
15	3'8	9'9	N : NNE : NE	NE : E : SW	3'2	0'0	0'34	314	10, sn : 5, cu, ci-eu, li-cl	6, cu, ci-eu : o, ho-fr : p-cl			
16	0'0	10'0	WSW : W : NW	NW : NNW	3'8	0'0	0'23	322	p-cl : p-cl	10, fq-r : 10			
17	4'2	10'0	NNW : N	N : NNE	12'6	0'0	1'03	421	10, shs-r, sn, w : 10 : 9, sc, sn	9, sn, hy-sqs : p-cl : o			
18	1'3	10'1	N : NNE : ENE	NE : N : WSW	1'3	0'0	0'07	208	10 : p-cl	10 : 10, slt-f			
19	0'0	10'2	SW	SW : SE : ENE	0'3	0'0	0'00	145	v : 10, sn, th-r, glm	10, r, sn, gt-glm : 10, slt-sn : 10			
20	1'0	10'2	ENE : NE	ESE : E : ENE	2'2	0'0	0'08	211	p-cl, fr : 10	10, sn : 5, th-cl : li-cl			
21	0'1	10'3	NE : NNE : W	W : WSW : N	0'9	0'0	0'03	188	p-cl, ho-fr : p-cl : 8, th-cl, f, glm	10, sn : 10, r			
22	0'0	10'4	N	NE : NNW : WSW	2'2	0'0	0'07	197	10 : 10	10, slt-r, glm : 10 : 10			
23	0'0	10'4	WSW : W : WNW	WNW : NW : NNE	2'7	0'0	0'16	281	10 : 10	10, fq-th-r : 10, slt-r			
24	0'0	10'5	SSW : SW : WSW	W : WSW	2'6	0'0	0'23	324	10, oc-th-r : 10	10 : 10			
25	1'0	10'6	WSW : SW	WSW : SW : SSW	1'8	0'0	0'14	304	10 : 10 : 9	10 : p-cl : li-cl			
26	0'0	10'6	S	S : SSW	5'5	0'0	0'64	372	p-cl : 10, slt-r : 10, sc	10, sc : 10, c-r : 10, slt-r, w			
27	0'1	10'7	SSW : WSW	W : WSW	5'3	0'0	0'60	403	10 : 10, r : 9, sc, fq-r	10, oc-slt-r : 10			
28	4'2	10'7	SW : SSW	SW : SSW	1'0	0'0	0'02	217	p-cl : 6, ci-eu, ci-s, so-ha	5, cu, li-cl, oc-slt-r : 9, oc-slt-r : 2			
Means	1'0	9'9	...	...	...	...	0'20	259					
Number of Column for Reference.	19	20	21	22	23	24	25	26	27			28	

The mean Temperature of Evaporation for the month was $34^{\circ}1$, being $3^{\circ}7$ lower than

The mean Temperature of the Dew Point for the month was $30^{\circ}6$, being $5^{\circ}0$ lower than

The mean Degree of Humidity for the month was $80^{\circ}7$, being $5^{\circ}3$ less than

The mean Elastic Force of Vapour for the month was $0^{\text{in}}.171$, being $0^{\text{in}}.037$ less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was $2^{\text{gr}}.0$, being $0^{\text{gr}}.4$ less than

The mean Weight of a Cubic Foot of Air for the month was 559 grains, being 6 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 8'1.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0'098. The maximum daily amount of Sunshine was 4'4 hours on February 12.

The highest reading of the Solar Radiation Thermometer was $98^{\circ}0$ on February 28; and the lowest reading of the Terrestrial Radiation Thermometer was $14^{\circ}0$ on February 15.

The mean daily distribution of Ozone for the 12 hours ending 9^h was 0'1; for the 6 hours ending 15^h was 0'0; and for the 6 hours ending 21^h was 0'0.

The Proportions of Wind referred to the cardinal points were N. 11, E. 4, S. 6, and W. 7.

The Greatest Pressure of the Wind in the month was 12'6 lbs. on the square foot on February 17. The mean daily Horizontal Movement of the Air for the month was 259 miles; the greatest daily value was 453 miles on February 5; and the least daily value was 134 miles on February 8.

Rain fell on 11 days in the month, amounting to $0^{\text{in}}.865$, as measured by gauge No. 6 partly sunk below the ground; being $0^{\text{in}}.619$ less than the average fall for the 50 years, 1841-1890.

the average for the 50 years, 1841-1890.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

MONTH and DAY, 1901.	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.			Electricity.	
			Of the Air.						Of Evapo- ration.	Of the Dew Point.	Degree of Humidity (Saturation = 100).			Of Radiation.				
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Mean of 24 Hourly Values.			Mean.	Greatest.	Least.	Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.		
Mar. 1	...	in. 29.049	52.9	37.9	15.0	45.2	+ 5.0	42.7	39.8	5.4	12.2	0.7	82	97.9	31.8	0.207	0.8	wwP, wN : vP, vN : wP wP : wP, vN : wP, wN wP : mP, ssN
2	...	29.058	52.8	36.5	16.3	44.3	+ 3.9	42.8	41.0	3.3	12.2	1.8	89	96.3	27.4	0.154	0.0	
3	...	29.248	48.5	37.0	11.5	42.3	+ 1.8	40.0	37.2	5.1	12.2	2.8	83	105.1	31.5	0.022	0.0	
4	...	29.642	53.2	36.2	17.0	44.1	+ 3.4	42.0	39.5	4.6	10.4	1.1	83	75.0	31.1	0.123	0.0	wP : wwP, mN : wP
5	Full : In Equator	29.539	54.1	39.4	14.7	46.9	+ 6.0	44.6	42.0	4.9	10.0	2.1	84	91.6	35.0	0.158	0.0	wwP : vP, ssN : mP wP : sP, ssN : wP
6	...	29.365	46.0	38.3	7.7	42.7	+ 1.6	40.2	37.2	5.5	9.0	2.8	82	71.7	33.8	0.149	0.0	
7	...	29.103	48.5	36.5	12.0	42.6	+ 1.6	40.2	37.3	5.3	11.3	1.4	82	77.0	35.0	0.188	0.0	wP : mP, ssN : vP, vN
8	Apogee	29.608	43.1	36.8	6.3	40.3	- 0.6	39.2	37.8	2.5	4.8	0.5	91	65.7	35.3	0.119	0.0	wP : vP, vN : wP wP : mP
9	...	30.093	44.2	35.4	8.8	39.6	- 1.2	37.2	34.1	5.5	8.8	1.9	81	97.9	31.2	0.000	0.2	
10	...	30.029	42.9	30.5	12.4	37.1	- 3.6	35.5	33.3	3.8	8.1	1.3	86	88.8	23.6	0.000	0.8	mP : wP : mP
11	...	29.737	44.5	30.2	14.3	37.7	- 2.9	36.1	33.9	3.8	8.6	1.5	86	85.6	22.8	0.000	0.0	mP : mP : wP wP
12	...	29.822	51.9	35.7	16.2	44.1	+ 3.4	42.4	40.4	3.7	7.4	0.0	87	67.0	28.0	0.000	0.2	
13	Greatest Dec. S. : Last Quarter	29.887	41.7	29.0	12.7	37.5	- 3.4	36.8	35.9	1.6	5.3	0.0	94	50.5	22.8	0.002	0.8	mP : wP wP
14	...	29.754	45.8	36.0	9.8	39.4	- 1.8	38.6	37.6	1.8	5.1	0.0	94	68.2	30.0	0.000	0.0	wP : mP : wP, wN
15	...	29.609	42.2	37.3	4.9	39.3	- 2.1	38.0	36.3	3.0	4.8	0.7	90	57.0	36.6	0.039	0.0	
16	...	29.581	43.4	36.9	6.5	39.5	- 2.0	38.7	37.7	1.8	4.4	0.2	94	75.0	34.5	0.050	0.2	wP, wN : wP : wP wP
17	...	29.590	48.9	35.8	13.1	42.4	+ 0.8	40.6	38.4	4.0	8.6	0.5	86	102.3	25.6	0.000	0.8	wP : mP : mP
18	...	29.447	41.2	35.3	5.9	39.4	- 2.2	37.6	35.3	4.1	9.0	1.4	86	55.1	31.9	0.000	0.5	
19	In Equator	29.363	43.4	34.2	9.2	36.8	- 4.7	34.4	31.0	5.8	10.1	0.3	80	106.6	32.5	0.040	1.5	wP : vP, vN : wP, vN
20	New	29.392	40.0	36.8	3.2	38.3	- 3.1	37.2	35.7	2.6	5.5	0.0	91	41.2	35.5	0.268	1.0	wwP, vN : wP : mP
21	Perigee	29.680	42.2	33.1	9.1	37.9	- 3.5	34.3	29.4	8.5	12.3	5.5	72	90.0	27.2	0.000	3.2	wP : mP : mP
22	...	30.119	43.9	31.3	12.6	37.1	- 4.4	33.3	27.9	9.2	13.6	5.3	69	104.6	25.5	0.000	0.8	mP : sP : ssP sP
23	...	30.288	42.1	33.2	8.9	38.3	- 3.5	35.5	31.7	6.6	10.3	2.7	77	60.2	25.0	0.000	0.0	sP : mP
24	...	30.100	40.8	30.6	10.2	34.9	- 7.2	33.1	30.2	4.7	9.2	3.5	82	75.1	19.0	0.000	0.0	
25	Greatest Declination N.	29.757	38.5	28.8	9.7	33.3	- 9.1	31.5	28.1	5.2	10.8	1.8	81	67.9	23.0	0.023	0.0	mP : vP, ssN : ssP, ssN
26	...	29.778	38.6	26.4	12.2	31.8	- 11.1	28.1	19.2	12.6	17.3	0.6	58	65.0	22.2	0.004	0.0	ssP : ssP : ssP
27	First Quarter	29.554	39.2	26.4	12.8	32.0	- 11.3	28.7	21.1	10.9	20.2	0.8	62	91.4	21.0	0.000	0.2	ssP
28	...	29.577	39.7	25.5	14.2	31.5	- 12.2	28.9	22.5	9.0	14.6	0.0	68	105.8	19.7	0.000	0.8	ssP : vP, wN : mP
29	...	29.600	43.2	24.2	19.0	34.4	- 9.7	30.7	24.4	10.0	16.3	0.6	66	96.0	20.3	0.005	1.2	wP, vN : vP, wP : mP
30	...	29.112	47.5	37.1	10.4	42.9	- 1.7	40.8	38.3	4.6	10.1	1.4	84	70.9	31.8	0.409	3.8	
31	...	29.081	51.0	40.6	10.4	45.3	+ 0.3	43.6	41.6	3.7	7.3	1.1	87	107.6	34.4	0.210	0.0	wP, wN : vN, wP : mP
Means	...	29.599	45.0	33.8	11.2	39.3	- 2.4	37.2	34.1	5.3	10.0	1.5	81.8	81.0	28.5	2.170	0.5	...
Number of Column for Reference.	I	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 50 years' observations, 1841-1890. 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 29.599, being 0.154 lower than the average for the 50 years, 1841-1890.

TEMPERATURE OF THE AIR.

The highest in the month was 54.1 on March 5; the lowest in the month was 24.2 on March 29; and the range was 29.9. The mean of all the highest daily readings in the month was 45.0, being 4.7 lower than the average for the 50 years, 1841-1890. The mean of all the lowest daily readings in the month was 33.8, being 1.2 lower than the average for the 50 years, 1841-1890. The mean of the daily ranges was 11.2, being 3.5 less than the average for the 50 years, 1841-1890. The mean for the month was 39.3, being 2.4 lower than the average for the 50 years, 1841-1890.

MONTH and DAY, 1901.	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.	Least.	Mean of 24 Hourly Measures.	Movement of the Air.	A.M.	P.M.	
Mar. 1	hours. 5'5	hours. 10'8	SSE : S : SW	SW	lbs. 10'9	lbs. 0'0	lbs. 1'25	miles. 486	9, r, w : 10, hy.-r : 9	9, cu, oc.-slt.-r, l.t : 8, lu.-ha : li.-cl
2	4'9	10'9	SW : SSW : SSE	SSW	8'8	0'0	1'36	469	o : p.-cl : 9, r, w	1, cu.-s, li.-cl, w : li.-cl, w, lu.-ha : 10, slt.-r
3	5'4	10'9	SW : WSW	WSW : W : WNW	6'3	0'0	0'93	445	p.-cl : 5, cu, cu.-s, w	9, oc.-shs, hl, w : o
4	0'5	11'0	WSW : SW : SSW	WSW : SW	4'3	0'0	0'42	374	p.-cl : p.-cl : 10, fq.-r	10 : 10, w
5	1'2	11'1	SW	SW : WSW : W	27'5	0'0	2'58	703	9, oc.-shs, w : 10, w : 10, fq.-r, w	p.-cl, oc.-r, hl, w : o, w : li.-cl, w, lu.-ha
6	1'1	11'1	SW : SSW	WSW : W	15'0	0'0	2'00	629	p.-cl, w : p.-cl, w : 10, fq.-r, w	9, fq.-r, hl : li.-cl : p.-cl
7	2'4	11'2	WSW : SW	W : SW : N	5'6	0'0	0'71	406	p.-cl : 10 : 10, oc.-r	v, shs.-r, t : v, oc.-slt.-r : 10, hy.-sh
8	0'0	11'3	N : NNE : NE	NE : NNE	11'0	0'0	1'40	517	10, w : 10, sc, oc.-r	10, fq.-r, t, w : 10, oc.-slt.-r, w
9	0'8	11'3	NNE	NNE : NE : SE	2'3	0'0	0'17	281	10 : 10	10
10	3'3	11'4	SE : NE : ESE	E : ENE	0'8	0'0	0'04	153	p.-cl, ho.-fr : 6, cu, ci.-cu, th.-cl	p.-cl : o, ho.-fr
11	1'9	11'5	NE : NNE : N	N : NNW	1'6	0'0	0'08	214	p.-cl, ho.-fr : th.-cl : 10	7, ci.-cu, th.-cl : 10 : p.-cl
12	0'0	11'5	NNW : N : SW	NNW : N : NE	0'4	0'0	0'01	125	10 : 10, f : 10, f, glm	10, f : o, ho.-fr
13	0'0	11'6	NE : ENE : NNE	ENE : E	3'8	0'0	0'29	268	o, f, ho.-fr : 10, m.-r : 10, oc.-m.-r	10 : 10
14	0'1	11'7	ENE : NE	ENE : E : NE	4'0	0'0	0'40	330	p.-cl, f : 10	10 : 10, fq.-m.-r : 10
15	0'0	11'8	NE : ENE	ENE : NE : E	2'5	0'0	0'21	306	10 : 10	10, fq.-r
16	0'1	11'8	NE : NNE : N	N : SSE	0'7	0'0	0'01	165	10, slt.-r : 10, slt.-r, glm	10 : 10
17	5'5	11'9	Calm : E	E : NE	1'6	0'0	0'13	219	9 : 10 : 5, cu, li.-cl, h	p.-cl : 10 : 10, oc.-th.-r
18	0'0	12'0	NE	NE	7'6	0'0	1'07	497	10 : 10 : 10, w	10, sc, w : 10, w
19	2'6	12'0	NE : NNE	NNE : N	7'7	0'0	1'42	535	p.-cl, w : 10, w : 10, slt.-sn, w	v, shs.-r, sn, w : 10, r, sn : 10, oc.-r, sn, sl
20	0'0	12'1	NE	NE	8'5	0'0	1'94	617	10, r, sl, w : 10, slt.-r, sl, w	10, r, sl, w : 10, w : 10, w
21	1'0	12'1	NE : ENE	E : ENE : NE	17'5	0'0	2'89	685	10, w : 10, st.-w : p.-cl, w	9, th.-cl, w, so.-ha : p.-cl, w
22	4'1	12'2	NNE	NE : NNE	4'7	0'0	0'61	392	p.-cl : p.-cl : 10	8, cu, ci.-cu, th.-cl : 10
23	0'0	12'3	NNE : N	N : NNE : NE	1'6	0'0	0'10	245	10 : 10	10 : p.-cl, ho.-fr
24	1'0	12'3	NE : NNE : N	NNE : SSW : WSW	0'6	0'0	0'00	151	p.-cl : 10 : 10	p.-cl, so.-ha : th.-cl, ho.-fr : th.-cl, f, ho.-fr
25	0'5	12'4	W : NE	NNE : N	5'0	0'0	0'42	331	f, ho.-fr : p.-cl : 10, r, sn	10, sn : p.-cl : o, ho.-fr
26	6'5	12'5	N : NNW	NNW : NW : SW	4'2	0'0	0'27	297	o, ho.-fr : 5, cu, th.-cl	p.-cl : vv, slt.-sn
27	5'7	12'5	WSW : NNW : W	NNW : N : NW	4'6	0'0	0'50	340	p.-cl, slt.-sn : 5, cu, ci.-cu, ci.-s	5, sn : li.-cl : o, ho.-fr
28	2'5	12'6	NW : WNW : NNW	NNE : W : WSW	4'6	0'0	0'42	316	o, ho.-fr : p.-cl : p.-cl, sn	p.-cl : th.-cl, sn : r, th.-cl, ho.-fr, lu.-ha
29	4'7	12'7	WSW : SW	SW : SSW	6'6	0'0	0'80	396	o, ho.-fr : th.-cl : p.-cl, so.-ha	9, slt.-sn : 10, oc.-slt.-r, lu.-ha, w : v, w
30	0'3	12'7	SSW	SW	18'0	0'0	3'50	732	9, sh.-r, w : 10, sc, r, st.-w : 10, c.-r	8, n, ci.-s, hy.-r, w : 6, ci.-cu, th.-cl : p.-cl
31	0'7	12'8	SW : SSW	SW	5'8	0'0	0'86	436	10, fq.-r, w : 10, r	p.-cl, shs.-r : 10, th.-cl : v, lu.-ha
Means	2'0	11'8	...	...	...	...	0'86	389		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean Temperature of Evaporation for the month was $37^{\circ}2$, being $2^{\circ}1$ lower than the mean Temperature of the Dew Point for the month was $34^{\circ}1$, being $2^{\circ}2$ lower than

The mean Degree of Humidity for the month was $81^{\circ}8$, being $0^{\circ}7$ greater than

The mean Elastic Force of Vapour for the month was $0^{\text{in}}\cdot196$, being $0^{\text{in}}\cdot018$ less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was $28^{\text{grs}}\cdot3$, being $0^{\text{grs}}\cdot2$ less than

The mean Weight of a Cubic Foot of Air for the month was 550 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 $8^{\circ}2$.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was $0^{\text{in}}\cdot170$. The maximum daily amount of Sunshine was $6^{\circ}5$ hours on March 26.

The highest reading of the Solar Radiation Thermometer was $107^{\circ}6$ on March 31; and the lowest reading of the Terrestrial Radiation Thermometer was $19^{\circ}0$ on March 24.

The mean daily distribution of Ozone for the 12 hours ending 9^h was $0^{\circ}5$; for the 6 hours ending 15^h was $0^{\circ}0$; and for the 6 hours ending 21^h was $0^{\circ}0$.

The Proportions of Wind referred to the cardinal points were N. 11, E. 8, S. 5, and W. 6. One day was calm.

The Greatest Pressure of the Wind in the month was $27\cdot5$ lbs. on the square foot on March 5. The mean daily Horizontal Movement of the Air for the month was 389 miles; the greatest daily value was 732 miles on March 30; and the least daily value was 125 miles on March 12.

Rain fell on 16 days in the month, amounting to $2^{\text{in}}\cdot170$, as measured by gauge No. 6 partly sunk below the ground; being $0^{\text{in}}\cdot709$ greater than the average fall for the 50 years, 1841-1890.

the average for the 50 years, 1841-1890.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

MONTH and DAY, 1901.	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.			No. 6, Rain collected in Gauge whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.	
			Of the Air.			Of Evapo- ration.	Of the Dew Point.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Deduced Mean Daily Value.	Mean.	Greatest.	Least.	Highest in Sun's Rays.	Lowest on the Grass.			
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.												
Apr. 1	...	in.	o	o	15'1	43'3	- 2'1	39'0	33'9	9'4	14'6	2'3	69	113'0	29'7	in.	o'001	wP : vP : sP
2	In Equator	29'462	52'2	37'1	15'1	43'3	+ 1'2	42'1	36'7	10'2	16'8	3'0	68	115'0	25'0	o'017	o'2	sP : mP : vP, mN
3	...	29'786	54'7	30'3	24'4	46'9	+ 5'1	49'3	47'4	3'7	8'4	o'0	87	102'2	42'8	o'356	o'8	wwP : wP : vP, vN
4	Full Apogee	29'526	58'0	44'6	13'4	51'1	+ 5'1											vN, wP : sP : sP
5	...	29'711	52'6	37'7	14'9	46'8	+ 0'6	42'7	38'1	8'7	18'1	1'0	72	109'4	29'4	o'247	o'0	mP : sP : sP
6	...	29'961	47'6	31'8	15'8	40'4	- 5'8	37'2	33'1	7'3	14'5	2'4	75	99'8	24'0	o'000	o'2	mP : vN, wP : wP
7	...	29'667	56'1	30'7	25'4	45'4	- 0'8	44'2	42'8	2'6	4'4	o'6	91	89'0	23'5	o'135	o'8	
8	...	29'527	60'6	49'3	11'3	52'6	+ 6'5	50'4	48'2	4'4	11'4	1'5	85	113'2	44'3	o'000	1'2	
9	...	29'428	56'7	43'8	12'9	50'3	+ 4'4	46'0	41'5	8'8	16'1	1'7	73	114'4	38'1	o'146	7'8	wwP, wN : wP, wwN : vP, ssN
10	...	29'481	57'1	42'4	14'7	48'1	+ 2'5	44'4	40'3	7'8	16'9	1'8	75	119'2	35'2	o'000	5'0	wP : wP : mP
11	...	29'333	52'6	38'3	14'3	45'4	- 0'1	43'6	41'5	3'9	8'6	1'3	87	97'8	32'5	o'242	o'0	ssN, wP : vP, ssN : mP
12	Last Quarter	29'324	52'9	40'2	12'7	45'8	+ 0'3	44'2	42'4	3'4	9'6	o'9	88	100'0	30'3	o'130	o'2	vP : vN, vP : mP
13	...	29'643	49'9	37'3	12'6	42'0	- 3'7	40'3	38'2	3'8	9'5	2'4	87	106'0	27'7	o'061	o'8	mP : ssN, wP : mP
14	...	29'733	49'0	35'4	13'6	42'2	- 3'8	41'0	39'6	2'6	9'4	o'0	90	68'3	24'9	o'126	o'5	mP : wP, wwN : wP
15	...	29'445	56'8	37'0	19'8	47'0	+ 0'6	43'4	39'3	7'7	3'4	75	99'0	32'0	o'042	1'7	vP, vN : vP, ssN	
16	In Equator	29'430	47'4	36'5	10'9	41'8	- 5'5	39'6	36'9	4'9	10'5	1'5	84	95'8	30'6	o'150	o'0	wP, sN : vP, vN : vP, ssN
17	...	30'003	53'0	36'2	16'8	43'0	- 4'7	39'4	35'1	7'9	16'2	1'9	74	101'3	28'0	o'000	o'0	mP : sP : vP
18	Perigee: New	30'098	60'0	40'8	19'2	48'3	+ 0'2	42'2	35'5	12'8	20'0	3'5	61	117'3	29'7	o'000	o'0	wP : vP : vP
19	...	30'018	63'4	39'0	24'4	52'2	+ 3'9	45'3	38'3	13'9	22'8	2'5	60	122'3	28'3	o'000	o'0	wP
20	...	29'863	66'9	40'6	26'3	56'2	+ 7'7	47'5	39'4	16'8	27'2	4'2	53	125'3	26'0	o'000	o'0	wP
21	...	29'749	71'3	43'4	27'9	59'3	+ 10'8	50'5	42'7	16'6	31'9	5'3	54	133'0	26'5	o'000	o'0	wP : wP : vP
22	Greatest Declination N.	29'691	73'6	46'6	27'0	60'1	+ 11'6	50'9	42'8	17'3	29'9	5'8	53	131'8	30'6	o'000	o'0	mP : wP : vP
23	...	29'752	76'6	45'4	31'2	60'9	+ 12'5	52'7	45'5	15'4	25'7	4'4	57	132'7	29'8	o'000	o'0	mP : wP : wP
24	...	29'828	69'0	44'5	24'5	56'3	+ 7'9	49'5	43'2	13'1	26'6	3'1	61	128'0	31'8	o'000	o'0	wP : wP, wN : wP
25	First Quarter	29'750	63'1	46'0	17'1	54'5	+ 6'1	48'6	42'9	11'6	19'0	3'2	65	124'7	34'1	o'000	1'0	... : vP
26	...	29'745	56'8	40'1	16'7	48'1	- 0'3	42'2	35'7	12'4	22'6	4'2	63	125'5	29'4	o'000	3'0	vP, ssN : vP, ssN : vP
27	...	29'716	52'9	37'1	15'8	43'3	- 5'2	40'1	36'3	7'0	15'4	2'3	76	121'0	28'1	o'017	o'0	mP : vP
28	...	29'779	56'7	36'6	20'1	44'7	- 3'9	40'8	36'3	8'4	17'4	0'5	72	122'1	28'8	o'000	o'0	mP : sP : mP
29	In Equator	29'729	57'9	33'4	24'5	46'5	- 2'3	42'3	37'6	8'9	16'7	0'7	72	115'0	20'8	o'000	o'0	vP : wP
30	...	29'814	65'0	38'7	26'3	49'9	+ 0'9	45'4	40'6	9'3	19'0	2'0	71	128'1	25'9	o'000	o'0	
Means	...	29'676	58'0	39'3	18'7	48'5	+ 1'4	44'2	39'6	8'9	16'8	2'3	72'5	112'7	30'0	1'807	o'8	...
Number of Column for Reference.	I	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 50 years' observations, 1841-1890. 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 29ⁱⁿ.676, being 0'065 lower than the average for the 50 years, 1841-1890.

The mean for the month was 48°5, being 1°4 higher than the average for the 50 years, 1841-1890.

The highest in the month was 76°6 on April 23; the lowest in the month was 30°3 on April 2; and the range was 46°3.

The mean of all the highest daily readings in the month was 58°0, being 0°8 higher than the average for the 50 years, 1841-1890.

The mean of all the lowest daily readings in the month was 39°3, being 0°4 higher than the average for the 50 years, 1841-1890.

The mean of the daily ranges was 18°7, being 0°4 greater than the average for the 50 years, 1841-1890.

MONTH and DAY, 1901.	Daily Duration of Sunshine. Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.								CLOUDS AND WEATHER.				
		OSLER'S.				ROBINSON'S.				A.M.		P.M.		
		General Direction.		Pressure on the Square Foot.		Greatest.	Least.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.					
		A.M.	P.M.											
Apr. 1	hours. hours.	SW : WSW	WSW : W : SW	lbs.	lbs.	lbs.	miles.	v	: 5, cu, th.-cl	6, cu, th.-cl, slt.-r, w: o				
2	7.7	12.9	SW : SSE : S	6.6	0.0	0.62	410	o, ho.-fr: o	: 5, cu, th.-cl, so.-ha	8, cu, th.-cl, so.-ha, w: 10, oc.-slt.-r				
3	1.2	13.0	S : SSW : SW	16.0	0.0	1.68	571	10, oc.-slt.-r, w	: 10, sc, w	p.-cl : 10, fq.-r : 10, c.-r, w				
4	5.8	13.1	SW : NW : WNW	20.1	0.0	2.07	603	10, hy.-r, w: 10	: 7, cu, li.-cl	6, cu, li.-cl, w: li.-cl : th.-cl, lu.-ha				
5	2.1	13.1	SW : E	0.5	0.0	0.01	171	p.-cl : 10	: 10	10, so.-ha : i	o, ho.-fr			
6	0.7	13.2	SE : S	8.3	0.0	0.85	392	o, ho.-fr : 10	: 10, sc, r	10 : 9, sc, w				
7	3.3	13.2	SW	6.1	0.0	0.80	418	10	: 10	li.-cl : 10, oc.-slt.-r : p.-cl				
8	10.8	13.3	SSW : SW	14.0	0.0	2.48	669	10, oc.-shs, w: li.-cl	: 7, cu, th.-cl, sc, sit.-sh, w	7, cu, th.-cl, w: 4, cu, s, th.-cl, sit.-r: v, fq.-shs, w				
9	9.9	13.4	SW : WSW	9.8	0.0	1.40	508	p.-cl, w : v	: 5, cu, th.-cl	6, cu, ci.-cu, th.-cl : th.-cl				
10	0.7	13.4	SSW : S	4.5	0.0	0.61	391	v, li.-shs : p.-cl	: 10, sc, c.-r	10, sc, so.-ha, r: p.-cl : li.-el				
11	2.0	13.5	SSW : S : SE	2.8	0.0	0.13	221	p.-cl, slt.-r: v	: 10, c.-r	v, fq.-shs : v, shs.-r, glm: 10, sh.-r				
12	2.3	13.6	NNW : N	7.6	0.0	0.53	290	p.-cl : 10	: 9, sc, eu, oc.-slt.-r	v, shs.-r, w: v, hy.-sh, gt.-glm, w: o				
13	0.0	13.6	WSW : SW	4.8	0.0	0.55	353	p.-cl, li.-shs	: 10, sc, fq.-r	10, sc, fq.-r : o				
14	1.2	13.7	SSW : S	4.2	0.0	0.63	370	p.-cl	: 10, fq.-r	p.-cl : p.-cl				
15	5.3	13.8	SW : WSW : W	10.0	0.0	1.43	535	v, li.-shs, w	: 7, cu, th.-cl, hy.-sh, w	v, n, hy.-shs, hl, w: p.-cl, hy.-sh: o				
16	2.3	13.8	SW : WNW : NW	NW : NNW : N	7.5	0.0	0.75	386	o	: 10, hy.-sh, w: v, fq.-shs, glm	9, oc.-sit.-r, hl, so.-ha: 10, hy.-sh, sn, w: o			
17	9.0	13.9	N	NW : SW	1.3	0.0	0.05	203	o, ho.-fr	: p.-cl : 7, cu, cu.-s, li.-cl, h	7, cu, li.-cl, h: 8, cu, li.-cl, m, f: li.-cl			
18	5.7	14.0	SW : WSW	WSW : SW : SSW	3.1	0.0	0.14	256	9	: p.-cl : 9, cu, ci.-cu, so.-ha	6, cu, ci.-cu, so.-ha : th.-cl : o			
19	12.4	14.0	SSW : SW	SSW : S : SE	1.6	0.0	0.08	208	o, d	: o	o : o, d			
20	12.7	14.1	ESE : SE	SSE : SE	3.5	0.0	0.36	236	o, f, d	: o	o : o			
21	13.1	14.1	SE : SSE	SSE : SE	3.3	0.0	0.22	214	o, h, d	: o	o : o			
22	11.5	14.2	SE : SSE : S	S : SE	3.2	0.0	0.22	230	o, h, d	: 1, ci.-s, li.-cl	z, ci.-s, th.-cl : 1, th.-cl			
23	10.9	14.2	SE : NE : SSW	SSW : ESE : Calm	1.4	0.0	0.03	121	o, h, m, d	: 3, ci.-s, th.-cl, so.-ha	3, ci.-s, ci.-s, li.-cl: p.-cl : o			
24	10.0	14.3	Calm : ENE	E	5.7	0.0	0.40	249	o, h, m, d	: o	3, ci.-s, ci.-s, th.-cl, so.-ha: th.-cl, lu.-ha			
25	12.1	14.4	ENE : E	E : ENE	9.1	0.0	0.87	376	li.-cl, d	: 2, li.-cl, h, so.-ha, w	1, th.-cl, w : o, w : o			
26	13.3	14.4	ENE	ENE : NE : NNE	13.6	0.0	1.53	518	o, w	: o : 5, cu, ci.-s, th.-cl, w	4, cu, th.-cl, w: p.-cl, w : p.-cl			
27	6.3	14.5	NNE : N	N : ENE	2.7	0.0	0.31	261	p.-cl, sh.-r: 9, li.-shs	: 8, cu, th.-cl	8, sit.-r, glm : p.-cl			
28	6.6	14.6	NNW : NNE : SW	SW : NE : SE	0.4	0.0	0.00	122	o	: o : 8, cu, li.-cl, h	p.-cl : o, h			
29	6.6	14.6	Calm : N	N : ENE : ESE	1.2	0.0	0.02	120	o, h, f, ho.-fr	: 5, cu, th.-cl, h	7 : p.-cl : o, m, sit.-f, hy.-d			
30	6.6	14.7	ESE : N	ESE : S	1.0	0.0	0.03	138	p.-cl, f, sit.-sh	: 8	6 : p.-cl : o			
Means	6.7	13.8	0.65	330			27	28		
Number of Column for Reference.	19	20	21	22	23	24	25	26						

The mean Temperature of Evaporation for the month was $44^{\circ}2$, being $0^{\circ}3$ higher than

The mean Temperature of the Dew Point for the month was $39^{\circ}6$, being $0^{\circ}6$ lower than

The mean Degree of Humidity for the month was $72^{\circ}5$, being $4^{\circ}1$ less than

The mean Elastic Force of Vapour for the month was 0.243 , being 0.006 less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was 287.8 , being 0.7 less than

The mean Weight of a Cubic Foot of Air for the month was 541 grains, being 2 grains less than

The mean amount of Cloud for the month (a clear sky being represented by o, and an overcast sky by 10) was 5.6 .

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.487 . The maximum daily amount of Sunshine was 13.3 hours on April 26.

The highest reading of the Solar Radiation Thermometer was $133^{\circ}0$ on April 21; and the lowest reading of the Terrestrial Radiation Thermometer was $20^{\circ}8$ on April 29.

The mean daily distribution of Ozone for the 12 hours ending 9^{h} was 0.6 ; for the 6 hours ending 15^{h} was 0.1 ; and for the 6 hours ending 21^{h} was 0.1 .

The Proportions of Wind referred to the cardinal points were N. 5, E. 5, S. 11, and W. 8. One day was calm.

The Greatest Pressure of the Wind in the month was 20.1 lbs. on the square foot on April 4. The mean daily Horizontal Movement of the Air for the month was 330 miles; the greatest daily value was 669 miles on April 8; and the least daily value was 120 miles on April 29.

Rain fell on 13 days in the month, amounting to $1^{\text{in}}.807$, as measured by gauge No. 6 partly sunk below the ground; being 0.146 greater than the average fall for the 50 years, 1841-1890.

the average for the 50 years, 1841-1890.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

MONTH and DAY, 1901.	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.			Electricity.			
			Of the Air.				Of Evapo- ration.	Of the Dew Point.	Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	Of Radiation.	Rain collected in Gauge No. 6 whose receiving surface is 5 inches above the Ground.				
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.				Highest in Sun's Rays.	Lowest on the Grass.	Daily Amount of Ozone.			
May 1	...	in. 29.909	64.9	35.3	29.6	49.9	+ 0.7	45.7	41.3	8.6	19.2	0.5	73	139.8	23.3	mP : vP : mP		
2	Apogee	30.035	55.2	45.0	10.2	50.0	+ 0.6	47.7	45.3	4.7	6.6	0.6	84	71.2	37.3	mP : sP : mP		
3	Full	30.159	67.9	44.3	23.6	53.7	+ 4.0	47.8	42.0	11.7	24.7	0.0	65	139.8	36.0	mP : wP : vP		
4	...	30.138	59.2	39.8	19.4	49.4	- 0.6	45.6	41.6	7.8	14.8	0.9	75	128.6	27.4	mP		
5	...	29.834	61.2	42.4	18.8	49.3	- 1.0	45.8	42.1	7.2	17.1	2.9	76	130.3	26.8	... : wP		
6	Greatest Declination S.	29.396	52.1	40.2	11.9	46.9	- 3.7	44.2	41.2	5.7	9.4	0.0	81	76.4	26.1	mP : sP : mP		
7	...	29.136	56.8	41.9	14.9	47.4	- 3.4	43.4	38.9	8.5	16.3	0.2	73	123.8	37.0	ssN, mP : vP, ssN : vP, ssN		
8	...	29.284	51.8	40.2	11.6	44.3	- 6.7	42.7	40.8	3.5	9.6	0.2	88	107.1	34.6	vP, ssN : vP, ssN : sP		
9	...	29.626	50.8	42.2	8.6	46.0	- 5.2	44.8	43.5	2.5	6.1	0.0	92	60.2	38.4	mP, ssN : ssP, ssN : ssN, vP		
10	...	29.859	55.1	42.0	13.1	47.4	- 4.1	45.0	42.4	5.0	9.0	0.7	84	110.2	35.0	mP : mP : sP		
11	Last Quarter	30.029	59.4	39.3	20.1	50.7	- 1.0	47.2	43.5	7.2	12.9	0.2	77	108.5	33.0	wP : mP : mP		
12	...	30.222	62.0	41.5	20.5	50.6	- 1.4	47.6	44.5	6.1	18.6	0.7	80	125.6	31.2	wP		
13	In Equator	30.202	63.5	43.9	19.6	52.5	+ 0.2	48.4	44.2	8.3	15.4	2.9	74	131.0	38.2	wP : mP		
14	...	30.192	69.5	41.3	28.2	55.1	+ 2.5	49.5	44.1	11.0	18.5	1.3	67	141.0	35.0	wP : mP : vP		
15	...	30.155	67.3	42.1	25.2	53.5	+ 0.7	48.4	43.4	10.1	21.1	2.1	69	130.6	30.0	mP : wP		
16	...	30.029	60.1	43.4	16.7	50.9	- 2.2	46.0	40.9	10.0	14.4	4.8	70	134.0	35.6	mP : sP		
17	Perigee	30.043	54.2	40.9	13.3	47.3	- 6.0	44.6	41.6	5.7	10.8	1.5	81	85.2	33.5	... : ... : vP		
18	New	30.062	63.4	36.6	26.8	50.0	- 3.6	45.6	41.0	9.0	17.7	1.8	72	134.8	25.2	mP : sP : mP		
19	Greatest Declination N.	30.015	69.8	45.9	23.9	56.4	+ 2.5	51.1	46.2	10.2	17.5	1.7	68	115.6	38.7	wP		
20	...	30.131	65.2	43.6	21.6	53.4	- 0.8	49.4	45.4	8.0	15.8	1.3	74	133.7	32.9	wP		
21	...	30.190	64.9	43.0	21.9	54.4	- 0.2	49.4	44.5	9.9	18.2	1.1	69	131.2	34.8	mP : wP : mP		
22	...	30.152	65.9	45.7	20.2	55.6	+ 0.6	49.1	42.9	12.7	27.0	1.9	63	129.5	34.0	mP : wP : mP		
23	...	30.178	64.7	45.1	19.6	55.3	0.0	47.9	40.9	14.4	26.8	2.5	58	135.8	33.0	mP : wP : vP		
24	...	30.134	67.6	44.2	23.4	56.5	+ 0.9	49.1	42.2	14.3	29.0	2.2	58	136.0	34.4	mP : wP : vP		
25	First Quarter	29.974	69.4	46.3	23.1	56.2	+ 0.5	51.0	46.1	10.1	20.7	3.6	69	140.2	36.8	mP		
26	In Equator	29.774	62.1	46.1	16.0	53.1	- 2.8	50.6	48.1	5.0	8.5	2.1	83	109.0	35.7	wP : vP		
27	...	29.742	73.0	42.2	30.8	57.6	+ 1.6	53.1	49.0	8.6	24.3	0.7	73	144.0	32.0	mP : wP, wwN : wP		
28	...	29.771	76.0	46.2	29.8	62.6	+ 6.6	55.2	48.9	13.7	27.2	0.0	61	133.0	36.5	mP : wP : wP		
29	Apogee	29.647	83.2	51.3	31.9	68.7	+ 12.5	60.2	53.6	15.1	28.4	3.6	58	151.0	43.3	mP : wP		
30	...	29.550	69.0	57.2	11.8	61.7	+ 5.2	58.8	56.4	5.3	13.7	1.1	83	124.0	52.0	vP, ssN : wwP : wP		
31	...	29.593	68.7	51.5	17.2	59.8	+ 3.0	55.5	51.7	8.1	19.1	0.8	75	138.2	42.1	wP : mP		
Means	...	29.908	63.7	43.6	20.1	53.1	0.0	48.7	44.5	8.6	17.4	1.4	73.3	122.6	34.5	...		
Number of Column for Reference.	I	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 50 years' observations, 1841-1890. 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 29.908, being 0.122 higher than the average for the 50 years, 1841-1890.

The mean reading of the Barometer for the month was 29.908, being 0.122 higher than the average for the 50 years, 1841-1890.

The mean reading of the Barometer for the month was 29.908, being 0.122 higher than the average for the 50 years, 1841-1890.

The highest in the month was 83.2 on May 29; the lowest in the month was 35.3 on May 1; and the range was 47.9.

The mean of all the highest daily readings in the month was 63.7, being 0.4 lower than the average for the 50 years, 1841-1890.

The mean of all the lowest daily readings in the month was 43.6, being 0.1 lower than the average for the 50 years, 1841-1890.

The mean of the daily ranges was 20.1, being 0.3 less than the average for the 50 years, 1841-1890.

The mean for the month was 53.1, being the same as the average for the 50 years, 1841-1890.

MONTH and DAY, 1901.	Daily Duration of Sunshine. Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER				
		OSLER'S.			ROBINSON'S.				A.M.		P.M.		
		General Direction.		Pressure on the Square Foot.		Greatest.	Least.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.				
		A.M.	P.M.										
May	hours. hours.												
1	5.9	14.8	SSE : NE : ENE	ENE : NNE : N	2.1	0.0	0.07	200	o : o, f : 3	p.-cl, oc.-slt.-r : 10			
2	0.0	14.8	N	N : NE : E	1.0	0.0	0.01	131	10 : 10 : 10, oc.-slt.-r	10 : p.-cl, tk.-f, hy.-d			
3	8.1	14.9	NNE : N : NE	E : SE : NE	3.0	0.0	0.12	201	10, f : 7, cu, th.-cl	5, cu.-s, ci.-cu : o, d			
4	11.8	14.9	NNE : NE	N : NNE : NE	1.6	0.0	0.05	225	o, d : th.-cl	1, th.-cl : o : p.-cl			
5	5.6	15.0	NNE : SW	SW : SE	0.9	0.0	0.03	112	p.-cl : 10	p.-cl : th.-cl, hy.-d			
6	0.0	15.0	WSW : NNW : N	W : WSW : SW	0.5	0.0	0.01	174	p.-cl, hy.-d, f: 10 : 10	10, oc.-slt.-r : s, th.-cl : slt.-sh			
7	7.6	15.1	SSW : SW : WSW	W : WSW : S	3.9	0.0	0.23	281	9, li.-shs : p.-cl : 7, cu, th.-cl, oc.-slt.-r	v, shs.-r : 8, cu.-s, oc.-slt.-r : 10, r			
8	1.0	15.1	Variable : Calm	ESE : ENE : N	2.8	0.0	0.02	140	10, fq.-r : 10 : 10	10, sc, hy.-r, hl : p.-cl : p.-cl			
9	0.0	15.2	N	Variable : N	2.8	0.0	0.07	193	9, oc.-shs : 10, t	10, hy.-r, hl, t.-sm: 10, fq.-m.-r, f : 10, oc.-r			
10	2.0	15.2	N	N : NNW : S	2.1	0.0	0.02	200	10, oc.-slt.-r : 10, fq.-r	p.-cl : 10, f, hy.-d			
11	1.1	15.3	S : Variable	Variable : N	0.1	0.0	0.00	106	p.-cl : p.-cl, glm	10 : th.-cl, m			
12	12.3	15.4	Variable : NE : ENE	NE : ESE : E	2.6	0.0	0.14	205	o, m, d : 1, th.-cl	o : th.-cl			
13	10.0	15.4	NE	NE : ENE : E	2.8	0.0	0.38	351	p.-cl : 8 : 1	o : o, d			
14	13.6	15.5	NE : NNE	ENE : E : NE	2.8	0.0	0.21	293	o : o : 1, th.-cl	3, th.-cl : o : o, d			
15	14.1	15.5	NE : NNE : ENE	E : ESE : NE	2.2	0.0	0.16	268	o, d : o	1, th.-cl : p.-cl, d			
16	8.9	15.6	NE : NNE	N : NNE : NE	2.4	0.0	0.37	335	p.-cl, d : 10 : 8, cu, th.-cl	6, cu, th.-cl : th.-cl : o, d			
17	0.0	15.6	NE : NNE	NNE : SE : E	1.7	0.0	0.05	210	p.-cl, d : 10	10 : p.-cl			
18	10.8	15.7	ENE : NNE	NNE : SSW : SW	0.4	0.0	0.01	170	o, d : 4, cu, th.-cl	5, li.-cl : o			
19	8.7	15.7	SW : WSW : N	NNW : N : E	0.9	0.0	0.03	172	p.-cl : p.-cl, m	p.-cl : o : o			
20	8.8	15.7	E : ENE : NE	E : ESE : ENE	1.3	0.0	0.08	218	o, m, d : 10 : p.-cl	4, cu, th.-cl : 1, th.-cl : o, d			
21	10.5	15.8	NE : ENE	E : ENE	3.1	0.0	0.32	294	p.-cl : 10 : p.-cl	o : o, d			
22	14.0	15.8	NE : ENE : E	ENE : NE	4.7	0.0	0.76	377	o, hy.-d : o, w	o, w : o			
23	14.1	15.9	NE : ENE	ENE : NE	5.8	0.0	0.93	434	o, d : o	o : o			
24	14.3	15.9	NE : NNE : ENE	E : ENE	5.3	0.0	0.65	361	o, d : o : 1, th.-cl	o : o			
25	10.5	16.0	NE : NNE	N : NNE	5.2	0.0	0.67	386	o, d : o : li.-cl	2, ci.-cu, th.-cl : p.-cl, w : 10, m.-r, w			
26	0.7	16.0	N	SW : WSW	1.0	0.0	0.02	192	10 : 10	10 : p.-cl			
27	13.1	16.0	SW : WSW	SW : SSW	0.6	0.0	0.03	164	o, d : o : li.-cl	p.-cl : li.-cl			
28	8.8	16.1	SW	SW : SSE	0.1	0.0	0.00	102	p.-cl : 2, ci.-s, th.-cl, m, so.-ha	5, ci.-cu, ci.-s, li.-cl : 5, ci.-s, li.-cl, lu.-ha			
29	13.6	16.1	ENE : Variable	SW : SSW	1.8	0.0	0.13	188	p.-cl : 3, ci.-s, th.-cl	3, cu, th.-cl : th.-cl : 1, t, sh.-r			
30	1.3	16.2	SSW : SSE	SSW : SW	4.0	0.0	0.51	281	9, 1, t, hy.-r : 10 : 10, oc.-slt.-r	10, oc.-slt.-r : 10, sc, oc.-slt.-r, w			
31	5.9	16.2	SSW : SW	WSW : SW : SSW	4.3	0.0	0.76	379	10, slt.-r : 10 : 9, cu, cl, cu, th.-cl, w	6, cu, ci.-s : li.-cl			
Means	7.6	15.5	0.22	237					
Number of Column for Reference.	19	20	21	22	23	24	25	26	27			28	

The mean Temperature of Evaporation for the month was $48^{\circ}7$, being $0^{\circ}5$ lower than

The mean Temperature of the Dew Point for the month was $44^{\circ}5$, being $0^{\circ}8$ lower than

The mean Degree of Humidity for the month was $73^{\circ}3$, being $1^{\circ}7$ less than

The mean Elastic Force of Vapour for the month was 0.194 , being 0.009 less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was 3.93 , being 0.01 less than

The mean Weight of a Cubic Foot of Air for the month was 540 grains, being 2 grains greater than

The mean amount of Cloud for the month (a clear sky being represented by o, and an overcast sky by 10) was 4.9.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.493. The maximum daily amount of Sunshine was 14.3 hours on May 24.

The highest reading of the Solar Radiation Thermometer was $151^{\circ}0$ on May 29; and the lowest reading of the Terrestrial Radiation Thermometer was $23^{\circ}3$ on May 1.

The mean daily distribution of Ozone for the 12 hours ending 9^h was 0.2; for the 6 hours ending 15^h was 0.0; and for the 6 hours ending 21^h was 0.1.

The Proportions of Wind referred to the cardinal points were N. 10, E. 11, S. 5, and W. 3. Two days were calm.

The Greatest Pressure of the Wind in the month was 5.8 lbs. on the square foot on May 23. The mean daily Horizontal Movement of the Air for the month was 237 miles; the greatest daily value was 434 miles on May 23; and the least daily value was 102 miles on May 28.

Rain fell on 5 days in the month, amounting to 1in.793, as measured by gauge No. 6 partly sunk below the ground; being 0in.210 less than the average fall for the 50 years, 1841-1890.

} the average for the 50 years, 1841-1890.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

MONTH and DAY, 1901.	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.			No. 6, Rain collected in Gauge whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.				
			Of the Air.				Of Evapo- ration.	Of the Dew Point.	Of Radiation.											
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).							
June 1	...	in.	69.5	48.2	21.3	58.3	+ 1.1	54.0	50.1	8.2	17.8	0.0	74	143°	37.9	in.	wP : ... : mP			
2	Full Greatest Declination S.	29.696	69.3	51.8	17.5	59.8	+ 2.1	55.2	51.1	8.7	17.3	0.6	73	138°	45.2	0.041	wP			
3		29.751	69.3	49.8	18.1	57.9	- 0.1	54.5	51.5	6.4	14.0	0.2	80	139°	43.1	0.000	wP : wP : vP, vN			
4	...	29.923	67.9	49.8	18.1	57.9	- 0.1	54.5	51.5	7.3	18.4	0.0	77	137.7	41.1	0.000	mP : vP			
5	...	29.947	70.6	48.9	21.7	57.4	- 0.8	53.6	50.1	14.2	24.5	0.0	60	148.5	39.6	0.000	mP : mP : ssP			
6	...	29.952	75.9	48.6	27.3	61.0	+ 2.7	53.4	46.8	9.1	18.4	5.2	73	144.0	40.0	0.000	· mP : mP : wP			
7	...	30.048	70.9	50.2	20.7	61.5	+ 3.2	56.6	52.4	9.1	18.4	5.2	73	144.0	40.0	0.000	mP : wP			
8	...	30.118	65.6	45.5	20.1	55.6	- 2.6	50.9	46.5	9.1	18.4	1.3	71	138.8	35.6	0.000	mP : wP			
9	Last Quarter : In Equator	29.956	69.2	45.5	23.7	56.9	- 1.3	51.9	47.3	9.6	19.6	1.3	70	142.5	34.0	0.000	mP : wP : vP, ssN			
10	...	29.738	79.7	44.3	35.4	63.9	+ 5.7	55.1	47.8	16.1	31.3	0.8	56	144.0	31.6	0.000	vP			
11	...	29.779	70.9	51.7	19.2	60.2	+ 2.0	52.5	45.7	14.5	24.3	5.6	59	137.8	44.7	0.000	mP : vP			
12	...	29.818	69.1	47.5	21.6	58.3	- 0.1	50.5	43.5	14.8	25.9	3.8	58	135.0	40.5	0.000	mP : vP, vN : vP, ssN			
13	...	29.644	65.7	47.9	17.8	54.9	- 3.7	50.4	46.1	8.8	19.3	3.0	72	128.0	42.9	0.067	sP			
14	...	29.439	58.3	42.7	15.6	50.9	- 7.9	46.2	41.3	9.6	16.6	4.2	71	122.3	37.1	0.010	sP : vP : wP			
15	Perigee	29.537	65.9	48.5	17.4	55.2	- 3.7	49.7	44.4	10.8	22.1	1.3	68	137.3	41.5	0.020	ssN, vP : sP : sP			
16	Greatest Dec. N. : New	29.825	63.9	46.1	17.8	53.7	- 5.3	48.1	42.6	11.1	19.4	2.9	66	128.4	35.9	0.050	sP : sP : vP			
17	...	29.846	61.5	48.8	12.7	56.1	- 2.9	49.9	44.1	12.0	16.1	6.2	64	131.8	35.9	0.009	mP : vP, vN : vP			
18	...	29.845	62.7	48.2	14.5	54.4	- 4.7	48.4	42.6	11.8	20.1	5.8	64	129.4	40.0	0.000	sP : sP : ssP			
19	...	29.869	63.4	45.4	18.0	52.7	- 6.5	46.2	39.7	13.0	20.0	5.2	62	137.0	34.3	0.000	sP			
20	...	30.029	69.0	42.8	26.2	54.6	- 4.9	49.6	44.8	9.8	23.4	0.0	69	132.8	27.8	0.067	sP : vP : wP			
21	...	29.960	64.0	50.2	13.8	57.0	- 2.9	55.8	54.7	2.3	5.5	0.6	92	110.2	49.0	0.001	wP : mP : vP			
22	In Equator First Quarter	29.890	79.0	58.7	20.3	65.3	+ 5.0	59.6	54.9	10.4	19.9	0.0	70	148.1	51.0	0.000	wwP : wP : mP			
23		29.715	74.9	56.3	18.6	65.1	+ 4.4	61.4	58.3	6.8	14.1	0.2	79	141.0	53.5	0.346	vP, vN : wP : mP			
24	...	29.688	69.9	53.1	16.8	62.4	+ 1.4	55.8	50.1	12.3	16.7	4.9	64	128.8	48.0	0.000	wwP, vN : wP			
25	...	30.222	71.3	50.2	21.1	59.8	- 1.5	53.6	48.1	11.7	19.3	2.8	66	127.9	39.8	0.000	mP : sP : sP			
26	Apogee	30.213	73.6	48.0	25.6	61.7	+ 0.3	55.4	50.0	11.7	22.5	2.2	66	125.5	36.8	0.000	vP			
27	...	30.128	71.9	51.3	20.6	60.1	- 1.3	54.5	49.6	10.5	23.0	0.0	68	143.2	38.0	0.000	wP : mP : vP			
28	...	29.998	72.6	48.5	24.1	60.9	- 0.4	56.4	52.5	8.4	22.3	0.0	74	145.8	38.0	0.000	mP : mP : ...			
29	...	29.964	74.6	56.8	17.8	64.0	+ 2.8	57.0	51.2	12.8	24.0	1.7	63	142.0	49.4	0.000	... : wwN, wP : wP			
30	Greatest Declination S.	29.819	69.9	54.0	15.9	61.0	- 0.2	58.3	56.0	5.0	12.4	0.0	84	129.2	52.0	0.901	vP, ssN : wP : vP, vN			
Means	...	29.879	69.3	49.3	20.0	58.6	- 0.8	53.2	48.4	10.3	19.5	2.0	69.3	135.4	40.9	1.491	0.5			
Number of Column for Reference.	I	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 50 years' observations, 1841-1890. 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 29ⁱⁿ.879, being 0ⁱⁿ.068 higher than the average for the 50 years, 1841-1890.

TEMPERATURE OF THE AIR.

The highest in the month was 79°.7 on June 9; the lowest in the month was 42°.7 on June 13; and the range was 37°.0. The mean of all the highest daily readings in the month was 69°.3, being 1°.6 lower than the average for the 50 years, 1841-1890. The mean of all the lowest daily readings in the month was 49°.3, being 0°.6 lower than the average for the 50 years, 1841-1890. The mean of the daily ranges was 20°.0, being 1°.0 less than the average for the 50 years, 1841-1890. The mean for the month was 58°.6, being 0°.8 lower than the average for the 50 years, 1841-1890.

MONTH and DAY, 1901.	Daily Duration of Sunshine. hours.	Sun above Horizon. hours.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.					
			OSLER'S.			ROBINSON'S.			A.M.			P.M.			
			General Direction.		Pressure on the Square Foot.		Greatest.	Least.	Mean of 24 Hours.	Horizontal Movement of the Air.	A.M.		P.M.		
			A.M.	P.M.											
June 1	7.8	16.2	S : SSW : SW	SSW : SW	lbs. 2.3	lbs. 0.0	lbs. 0.13	miles. 243			o, hy.-d : li.-cl	: 8, cu, cl.-cu, cl.-s	10	: 10, fq.-r : 10	
2	8.8	16.3	SSW : SW	SW	6.6	0.0	0.70	372			p.-cl : 7, cu, th.-cl, w		p.-cl, w : p.-cl	: 0	
3	2.6	16.3	SW	SW : WSW	0.1	0.0	0.00	167			p.-cl : 9		9, cu, th.-cl, slt.-r : p.-cl, shs.-r	: p.-cl, m, hy.-d	
4	8.1	16.3	SW : WSW	SW	1.9	0.0	0.05	217			p.-cl, f, d : 10, f	: 5, cu, th.-cl, m	3, cu, th.-cl : 4, ci.-s, th.-cl : 1, th.-cl, d		
5	6.9	16.4	WSW	WSW : NNW	0.3	0.0	0.00	180			p.-cl : 7, ci.-s, th.-cl		6, ci, ci.-cu, ci.-s : p.-cl		
6	4.0	16.4	WSW : NE	NE : ESE : E	1.7	0.0	0.06	231			9 : 9, cu, ci.-cu		10 : 1, ci.-s, d		
7	9.7	16.4	NE : NNE : ENE	ENE : E	2.0	0.0	0.22	294			o, d : o	: 8, cu, cl.-cu, cl.-s, so.-ha	7, ci.-cu, ci.-s, th.-cl : p.-cl, m		
8	12.2	16.4	ENE : NE : E	E : ESE	2.0	0.0	0.17	234			p.-cl, d : p.-cl	: 1, th.-cl	1, li.-cl : 1		
9	11.7	16.4	ESE : Calm : SSW	SSW : SW	1.2	0.0	0.05	153			o, d : o		th.-cl, so.-ha : 10, oc.-slt.-r		
10	12.6	16.5	N : NNW	W : WNW	2.9	0.0	0.27	288			9 : p.-cl	: 4, cu, th.-cl	5, cu, th.-cl : li.-cl		
11	13.0	16.5	WSW : W	WNW : NW : W	5.6	0.0	0.75	412			p.-cl : 6, cu, ci.-s, th.-cl, w		2, ci.-cu, th.-cl, w : 1, th.-el		
12	1.7	16.5	WSW : W	W : WSW : NW	4.8	0.0	0.36	332			o : 10 : 9, sh.-r, w		9, sh.-r : 10, fq.-r : 10, sc, fq.-th.-r, w		
13	6.0	16.5	WNW : W	W : WSW	11.5	0.0	1.22	516			p.-cl, oc.-shs : o	: 9, sh.-r, w	10 w : 10, oc.-slt.-r : 10, li.-shs		
14	9.1	16.5	WSW : N	N : NNE : NE	5.1	0.0	0.39	324			p.-cl, li.-shs : p.-cl	: 7, cu, ci.-cu, oe.-slt.-r, w : th.-cl, h	7, cu, ci.-cu, oe.-slt.-r, w : th.-cl, h		
15	9.6	16.5	N	N : NNE : SSW	2.3	0.0	0.10	210			p.-cl, d : 9, cu, ci.-cu		9 : p.-cl : 5, cu, th.-cl, h, d		
16	3.5	16.5	N : NNW : NW	NNW : NW : W	2.5	0.0	0.15	238			p.-cl : 8, cu, th.-cl, slt.-sh, gln		8, cu, th.-cl, sh.-r : p.-cl : 1		
17	6.0	16.5	NW : W	WNW : NW	5.3	0.0	0.93	441			o : 10 : 8, cu, th.-cl		8, cu, th.-cl : p.-cl : 0, w		
18	8.1	16.6	WNW : NNW : N	N	5.0	0.0	1.04	423			p.-cl : 6, cu, th.-cl		7, cu, th.-cl : p.-cl : 0		
19	5.9	16.6	NNW : WSW : S	SSW : SW	2.3	0.0	0.10	196			o, d : 8, h, th.-cl		9, so.-ha : 10, fq.-th.-r		
20	0.0	16.6	S : SSW	SSW : SW	1.8	0.0	0.19	286			10 : 10 : 10, oc.-slt.-r		10, oc.-slt.-r : 10		
21	6.4	16.6	SW	SW : SSW	1.0	0.0	0.06	205			p.-cl : 6, cu, ci.-cu, ci.-s, so.-ha		4, cu, ci.-cu, ci : 4, ci, ci.-cu		
22	6.5	16.6	SW : ESE	ESE : S : SSW	1.3	0.0	0.04	156			10, r, t : 10, hy.-r : 8, cu, cl.-cu, cl.-s, th.-cl		6, th.-cl, slt.-sh : p.-cl		
23	8.3	16.6	SW	WSW : W	12.5	0.0	1.69	519			p.-cl, st.-w : 6, cu, th.-cl, oc.-slt.-r, st.-w		p.-cl, oc.-slt.-r, w : 0		
24	4.3	16.6	WSW : W : NW	NW : NNW : N	2.2	0.0	0.11	238			o : p.-cl : 8, cu, th.-cl, t		8 : p.-cl		
25	8.4	16.6	N : NNW	N : NE : ESE	1.1	0.0	0.04	168			p.-cl, d : 6, cu, th.-cl		8, cu, ci.-cu, li.-cl : p.-cl : 0, h, d		
26	10.8	16.6	ESE : Calm : N	N : NE : E	1.0	0.0	0.04	140			li.-cl, h, m, d : h, m	: li.-cl	2, ci.-cu, th.-cl : 0		
27	14.3	16.5	E	E : ESE	2.0	0.0	0.18	210			o, d : o		o : o		
28	9.5	16.5	E : ENE	E : ENE	3.0	0.0	0.40	275			li.-cl, h, hy.-d : 4, ci.-s, th.-cl, so.-ha		6, ci.-s, th.-cl, so.-ha : 10, th.-cl		
29	13.9	16.5	ENE : E	E : ENE	5.2	0.0	0.96	409			p.-cl : 1, ci, ci.-s, li.-cl, w		3, ci.-s, th.-cl, so.-ha : 5, ci.-s, th.-cl, so.-ha : p.-cl, l, t		
30	2.2	16.5	NNE : E : ENE	E : ENE	7.4	0.0	0.66	331			10, t.-sm, hy.-r : 10, oc.-slt.-r, w : 6, cu, th.-cl		p.-cl, oc.-r : 10, oc.-r : 10, hy.-r		
Means	7.7	16.5	0.37	280						28	
Number of Column for Reference.	19	20	21	22	23	24	25	26							

The mean Temperature of Evaporation for the month was $53^{\circ}2$, being $1^{\circ}8$ lower than

The mean Temperature of the Dew Point for the month was $48^{\circ}4$, being $2^{\circ}7$ lower than

The mean Degree of Humidity for the month was $69^{\circ}3$, being $4^{\circ}7$ less than

The mean Elastic Force of Vapour for the month was 0.0340 , being 0.035 less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was $3^{27.8}$, being 0.04 less than

The mean Weight of a Cubic Foot of Air for the month was 533 grains, being 2 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 5.9.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.469. The maximum daily amount of Sunshine was 14.3 hours on June 27.

The highest reading of the Solar Radiation Thermometer was $148^{\circ}5$ on June 5; and the lowest reading of the Terrestrial Radiation Thermometer was $27^{\circ}8$ on June 19.

The mean daily distribution of Ozone for the 12 hours ending 9^h was 0.4; for the 6 hours ending 15^h was 0.0; and for the 6 hours ending 21^h was 0.1.

The Proportions of Wind referred to the cardinal points were N. 7, E. 7, S. 6, and W. 9. One day was calm.

The Greatest Pressure of the Wind in the month was 12.5 lbs. on the square foot on June 23. The mean daily Horizontal Movement of the Air for the month was 280 miles; the greatest daily value was 519 miles on June 23; and the least daily value was 140 miles on June 26.

Rain fell on 9 days in the month, amounting to 1ⁱⁿ.491, as measured by gauge No. 6 partly sunk below the ground; being 0ⁱⁿ.531 less than the average fall for the 50 years, 1841-1890.

} the average for the 50 years, 1841-1890.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

MONTH and DAY, 1901.	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.			Electricity.		
			Of the Air.				Of Evapo- ration.	Of the Dew Point.	Degree of Humidity (Saturation = 100).			Of Radiation.						
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.			Mean.	Greatest.	Least.	Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6 whose receiving surface is 5 inches above the Ground.				
July	Full	in.	°	°	°	°	°	°	°	°	°	°	°	°	in.	wwN, wP : wP : mP wP : vP, vN wP : wP : mP		
		29.568	70.3	54.4	15.9	61.9	+ 0.6	59.2	56.9	5.0	12.8	0.0	84	111.3	48.2	0.036	4.0	mP : sP : vP wP : vP : mP wP
		29.488	71.3	54.5	16.8	60.4	- 1.0	57.9	55.7	4.7	13.7	0.0	85	132.0	48.3	0.112	0.2	
	...	29.601	71.9	55.0	16.9	62.5	+ 0.8	57.6	53.4	9.1	18.5	0.4	72	137.8	50.2	0.000	2.8	mP : sP : vP wP : vP : mP wP
		29.867	78.9	56.2	22.7	65.7	+ 3.8	59.9	55.2	10.5	23.3	1.5	70	132.6	48.5	0.000	2.0	
		29.941	83.9	59.9	24.0	70.9	+ 8.8	62.3	55.7	15.2	26.3	1.7	59	137.9	50.6	0.000	0.0	
	...	29.967	71.0	59.0	12.0	63.9	+ 1.7	61.3	59.1	4.8	14.6	2.5	85	117.2	52.5	0.000	0.0	mP : sP : vP wP : vP : mP wP
		30.074	67.8	51.0	16.8	61.1	- 1.0	57.4	54.2	6.9	13.7	1.1	79	118.4	41.0	0.000	0.0	
		30.028	74.0	47.6	26.4	60.5	- 1.5	55.6	51.3	9.2	19.2	0.0	71	148.0	36.9	0.000	0.0	
	Last Quarter	29.911	77.5	46.2	31.3	61.5	- 0.5	56.5	52.2	9.3	24.1	0.6	72	136.0	32.8	0.000	0.0	mP : mP : wP
		29.915	80.7	49.2	31.5	63.8	+ 1.7	58.3	53.7	10.1	25.2	0.0	70	146.0	48.1	0.000	0.0	
		29.934	84.5	56.1	28.4	68.8	+ 6.5	61.8	56.4	12.4	28.6	0.6	64	150.0	49.5	0.000	0.0	
	Perigee	29.915	86.1	56.7	29.4	70.6	+ 8.0	63.9	58.8	11.8	25.2	1.1	66	145.5	44.9	0.000	0.0	mP : wP wP : vP
		29.936	69.8	58.3	11.5	62.9	- 0.0	58.4	54.6	8.3	14.8	3.2	75	121.2	52.3	0.000	0.0	
		29.871	69.6	52.7	16.9	60.8	- 2.3	56.8	53.4	7.4	14.0	0.9	77	131.1	45.7	0.000	0.0	
	New	29.880	78.4	52.9	25.5	66.0	+ 2.8	58.7	52.8	13.2	23.6	0.4	63	138.5	42.3	0.000	0.0	wP : vP, ssN : wP mP : wP : wP, wwN wP : vP : sP
		30.015	83.9	51.7	32.2	68.8	+ 5.6	60.1	53.3	15.5	27.4	2.4	57	147.0	44.9	0.000	0.0	
		30.091	82.9	52.3	30.6	69.0	+ 5.9	62.2	56.9	12.1	23.5	3.4	65	139.5	41.7	0.000	0.0	
	...	30.051	84.2	58.7	25.5	71.8	+ 8.8	63.3	56.9	14.9	28.9	3.1	60	148.9	50.1	0.000	0.0	mP : wP : mP mP wP : wP : vP
		29.954	87.9	54.0	33.9	71.1	+ 8.1	64.3	59.1	12.0	28.7	0.8	66	154.2	42.8	0.000	0.0	
		29.926	84.0	58.3	25.7	70.8	+ 7.8	63.5	57.9	12.9	31.8	0.6	64	150.1	48.3	0.000	0.0	
	In Equator	29.712	87.0	57.6	29.4	72.0	+ 9.0	65.2	60.1	11.9	28.7	0.2	66	156.0	45.3	0.000	0.0	mP : wP : vP, wN wP wwP: vP, vN : wwP
		29.669	76.4	58.8	17.6	66.0	+ 3.1	59.3	53.8	12.2	21.8	4.8	65	106.9	55.0	0.000	0.0	
		29.662	67.1	54.7	12.4	60.1	- 2.7	56.8	53.9	6.2	10.3	2.5	80	90.0	49.0	0.009	0.0	
	First Quarter	29.419	68.1	53.5	14.6	60.2	- 2.4	57.9	55.9	4.3	9.5	0.6	86	144.3	46.5	0.129	0.5	wP : ssP, ssN : vN, vP wP : wwP, wwN vP, vN
		29.410	70.9	52.2	18.7	59.7	- 2.7	56.7	54.1	5.6	13.1	0.0	83	143.0	44.3	0.045	1.5	
		29.492	64.0	51.8	12.2	58.6	- 3.7	56.9	55.4	3.2	8.2	0.0	89	87.7	44.0	0.035	0.0	
	Greatest Declination S.	29.578	68.1	53.1	15.0	58.6	- 3.7	57.1	55.8	2.8	12.4	0.0	90	122.8	46.0	1.078	4.0	wP : vP, ssN : wP wP : wP : vP, wN wP : mP : wP
		29.691	71.5	49.2	22.3	60.0	- 2.3	57.5	55.3	4.7	17.1	0.0	85	139.0	41.0	0.280	0.0	
		29.885	76.0	51.2	24.8	64.4	+ 2.1	59.5	55.4	9.0	19.4	0.0	73	134.9	43.3	0.000	0.0	
	...	30.043	77.6	54.1	23.5	66.9	+ 4.6	60.9	56.2	10.7	19.2	0.0	69	124.4	47.7	0.000	0.0	wP : mP : wP
		30.043	80.0	57.7	22.3	68.0	+ 5.7	63.4	59.8	8.2	19.2	0.8	75	133.3	49.8	0.000	0.0	
		29.824	76.3	54.1	22.2	64.8	+ 2.3	59.7	55.6	9.2	19.9	1.1	73.1	133.1	46.2	1.724	0.5	
Means	...	29.824	76.3	54.1	22.2	64.8	+ 2.3	59.7	55.6	9.2	19.9	1.1	73.1	133.1	46.2	1.724	0.5	...
Number of Column for Reference.	I	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 50 years' observations, 1841-1890. 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 in. 824, being 0 in. 031 higher than the average for the 50 years, 1841-1890.

TEMPERATURE OF THE AIR.

The highest in the month was 87°.9 on July 19; the lowest in the month was 46°.2 on July 9; and the range was 41°.7.

The mean of all the highest daily readings in the month was 76°.3, being 2°.3 higher than the average for the 50 years, 1841-1890.

The mean of all the lowest daily readings in the month was 54°.1, being 1°.0 higher than the average for the 50 years, 1841-1890.

The mean of the daily ranges was 22°.2, being 1°.3 greater than the average for the 50 years, 1841-1890.

The mean for the month was 64°.8, being 2°.3 higher than the average for the 50 years, 1841-1890.

MONTH and DAY, 1901.	Daily Duration of Sunshine. Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.			
		OSLER'S.			ROBIN- SON'S.		Horizontal Movement of the Air.		A.M.		P.M.	
		General Direction.		Pressure on the Square Foot.								
		A.M.	P.M.									
July	hours, hours.											
1	3'3	16'5	E : SW : SSW	SW : SSW : S	lbs.	lbs.	lbs.	miles.	10, oc-slt-r	10	: p-cl, d	
2	2'5	16'5	SSE : ENE : E	E : SSE : SE	0'6	0'0	0'04	172	p-cl : p-cl	10, sh-r	: 10, r : 10	
3	12'2	16'5	E : ENE	ENE : E : ESE	4'8	0'0	0'23	197	p-cl : 6, cu, ci, ci-s	5, ci, ci-s, ci-cu, so-ha	: p-cl, m, d	
4	11'3	16'4	NNE : N	N : NNW : SW	3'0	0'0	0'25	242				
5	12'2	16'4	SW : WSW : W	W : WSW	0'7	0'0	0'03	183	10 : p-cl	2, ci-cu, th-cl, h	: o, h	
6	2'4	16'4	SW : NNW : N	N : NNE : NE	1'3	0'0	0'07	215	o, h : 1, th-cl, h	7, cu, ci-cu	: 5, ci, ci-cu	3, ci-cu, th-cl
7	4'6	16'4	NE : ENE	E : ESE	1'6	0'0	0'15	245	h : th-cl, h	8, cu, cl-cu, th-cl	10 : 10	
8	12'4	16'4	ESE : E : ENE	E : ESE	1'2	0'0	0'06	229				
9	12'3	16'3	E : ENE : NE	E : ESE	1'7	0'0	0'03	150	10 : 10, m	p-cl	: o	
10	11'7	16'3	ESE : NE	NE : ENE : E	1'2	0'0	0'02	139	p-cl, m, d : o	4, ci-cu, ci-s	: o	
11	10'8	16'3	E : NE	E : ESE : SE	1'0	0'0	0'00	126	o, d : p-cl	o, h	: o	
12	7'9	16'2	Calm : SW	N : NNE : NE	2'6	0'0	0'10	159	p-cl, tk-f, hy-d : f	z, cu, th-cl	: o	
13	0'5	16'2	NNE : NE : ENE	NE	3'3	0'0	0'28	293	9 : p-cl, f, m, h	1, ci-cu, th-cl	: 1, ci-cu, th-cl	
14	2'8	16'2	N : NNE : NE	NNE : Calm : SE	1'0	0'0	0'04	167	o, m : o	1, ci-cu, th-cl	9 : 7, m	p-cl, l
15	10'5	16'1	SE : SW	WSW : W : WNW	1'5	0'0	0'05	192	p-cl, l : p-cl	10 : p-cl	: p-cl	
16	14'2	16'1	WSW : Variable	SSW : SW	1'2	0'0	0'06	164	o, d : o	z, cu, th-cl	: z, cu-s, th-cl	
17	9'1	16'1	SW : WSW	Variable	1'3	0'0	0'00	144	o, d : 7, ci, ci-cu, ci-s	8 : 6, cu-s, cl-cu, th-cl	: li-cl	
18	13'9	16'0	Calm : SSE : ESE	E : ESE	1'2	0'0	0'06	164	o : 2, ci-cu, ci-s	1, li-cl	: o	
19	11'0	16'0	ESE : ENE	E : ESE	2'9	0'0	0'09	159	o, h, d : 3, ci-s, th-cl	4, ci, ci-s	: z, ci, ci-s	o, m
20	14'0	16'0	E : ESE	ESE	2'0	0'0	0'13	190	o, m : o	o	: o	
21	9'2	15'9	ESE : E	SSE : SSW : WSW	2'9	0'0	0'16	214	o, m : p-cl, f	2, ci-s, th-cl	: 1, l	
22	1'8	15'9	WSW : NW	W : WNW : WSW	2'0	0'0	0'19	292	p-cl : 10	10 : 6	: p-cl	
23	0'0	15'8	W : WSW	WSW : SW : SSW	0'7	0'0	0'01	204	p-cl : 10 : 10, fq-th-r	10 : 6, cu-s, th-cl		
24	2'8	15'8	S : SSE : SE	SE : S : SSW	1'8	0'0	0'05	187	p-cl, slt-r : 10, fq-r	10, fq-r	: p-cl	li-cl
25	2'8	15'7	SSW : SW	WSW : WNW : Calm	0'5	0'0	0'00	113	p-cl : 6, cu, ci-cu, th-cl	10, fq-r, l, t	: p-cl, slt-r	p-cl, f, d
26	0'0	15'7	Calm : SW : WSW	WSW : SW : SSW	0'1	0'0	0'00	119	p-cl, f : 9	10, oc-slt-r, t	: 10, slt-r	
27	1'8	15'6	SSW : SSE	S : SSE	0'5	0'0	0'02	129	10, c-hy-r : 10, hy-r, t	8, oc-slt-r	: 8, cu, n	li-cl
28	5'7	15'6	Variable : Calm : SSE	SE : NNE	1'6	0'0	0'02	99	p-cl, f : p-cl	6	: li-cl	
29	12'1	15'5	Variable : NNE : NE	NNE : SSE : SW	1'2	0'0	0'02	115	o, m, d : 2, cu, th-cl, h	3, cu, ci-cu, th-cl	: 5, t	
30	6'0	15'5	SW : WSW : NNE	NE : SE : N	0'2	0'0	0'00	109	o, m, d : 6, th-cl, h	6, ci-cu, th-cl, h	: p-cl	: o, h
31	9'4	15'4	N	N : E	2'5	0'0	0'12	181	h, d : p-cl	3	6, cu, th-cl	: p-cl, d
Means	7'5	16'1	...	...	...	...	0'08	175				
Number of Column for Reference.	19	20	21	22	23	24	25	26	27		28	

The mean Temperature of Evaporation for the month was $59^{\circ}7$, being $1^{\circ}9$ higher than

The mean Temperature of the Dew Point for the month was $55^{\circ}6$, being $1^{\circ}7$ higher than

The mean Degree of Humidity for the month was $73^{\circ}1$, being $0^{\circ}7$ less than

The mean Elastic Force of Vapour for the month was $0^{\text{in}}443$, being $0^{\text{in}}027$ greater than

The mean Weight of Vapour in a Cubic Foot of Air for the month was $45^{\text{grs}}9$ being $0^{\text{grs}}3$ greater than

The mean Weight of a Cubic Foot of Air for the month was 526 grains, being 1 grain less than

The mean amount of Cloud for the month (a clear sky being represented by 0, and an overcast sky by 10) was 5'3.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0'465. The maximum daily amount of Sunshine was 14'2 hours on July 16.

The highest reading of the Solar Radiation Thermometer was $156^{\circ}0$ on July 21; and the lowest reading of the Terrestrial Radiation Thermometer was $32^{\circ}8$ on July 9.

The mean daily distribution of Ozone for the 12 hours ending 9^h was 0'1; for the 6 hours ending 15^h was 0'1; and for the 6 hours ending 21^h was 0'3.

The Proportions of Wind referred to the cardinal points were N. 5, E. 11, S. 6, and W. 6. Three days were calm.

The Greatest Pressure of the Wind in the month was 4'8 lbs. on the square foot on July 2. The mean daily Horizontal Movement of the Air for the month was 175 miles; the greatest daily value was 293 miles on July 13; and the least daily value was 99 miles on July 28.

Rain fell on 8 days in the month, amounting to $1^{\text{in}}724$, as measured by gauge No. 6 partly sunk below the ground; being $0^{\text{in}}746$ less than the average fall for the 50 years, 1841-1890.

} the average for the 50 years, 1841-1890.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

MONTH and DAY, 1901.	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		Electricity.		
			Of the Air.				Of Evapo- ration.	Of the Dew Point.	Degree of Humidity (Saturation = 100).			Of Radiation.						
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Mean of 24 Hourly Values.	Dedu- ced Mean Daily Value.	Mean.	Greatest.	Least.	Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.			
Aug.	In Equator	in.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	wP : mP : mP mP : mP : vP wP	
		29.947	75.3	57.6	17.7	66.3	+ 4.1	62.1	58.7	7.6	16.2	1.9	77	133.6	49.3	0.000	0.0	
		30.026	74.5	59.3	15.2	66.3	+ 4.2	60.9	56.6	9.7	16.1	3.8	71	124.1	51.8	0.067	0.0	
	Perigee	30.087	75.5	55.2	20.3	64.0	+ 1.9	58.9	54.6	9.4	18.5	1.5	72	131.0	47.4	0.34	0.0	
		29.856	72.4	56.1	16.3	62.6	+ 0.4	58.1	54.3	8.3	14.4	2.8	79	128.8	48.0	0.008	6.0	
		29.882	68.2	53.8	14.4	60.1	- 2.2	54.1	48.8	11.3	18.2	4.4	66	122.8	42.7	0.000	0.2	
		29.675	74.5	52.2	22.3	61.2	- 1.2	56.7	52.8	8.4	17.0	2.5	75	122.8	51.0	0.072	0.8	
	Last Quarter	29.831	77.6	53.3	24.3	64.4	+ 1.9	57.6	52.0	12.4	21.4	3.6	64	133.0	46.2	0.000	0.0	
		29.882	78.5	60.5	18.0	67.1	+ 4.6	61.9	57.7	9.4	16.3	3.6	72	143.7	51.5	0.000	0.0	
		29.808	84.2	54.4	29.8	69.3	+ 6.8	62.4	57.0	12.3	24.7	1.5	64	143.0	45.8	0.000	0.0	
	Greatest Declination N.	29.557	82.3	57.0	25.3	68.2	+ 5.7	63.0	58.9	9.3	19.0	2.9	72	137.1	45.3	0.000	2.0	
		29.775	72.9	47.6	25.3	61.1	- 1.4	54.3	48.4	12.7	25.0	2.1	63	140.0	36.7	0.001	1.2	
		29.753	69.2	50.3	18.9	59.1	- 3.4	55.2	51.7	7.4	16.9	2.2	77	134.8	37.5	0.038	3.8	
	New	29.891	73.9	51.2	22.7	61.4	- 1.0	56.4	52.1	9.3	20.9	1.4	72	142.9	38.7	0.000	3.8	
		29.848	74.3	57.1	17.2	62.7	+ 0.4	59.2	56.2	6.5	17.6	0.9	80	138.9	53.8	0.337	5.2	
		29.693	71.3	57.3	14.0	62.9	+ 0.8	58.8	55.3	7.6	17.5	0.8	76	127.5	48.5	0.118	3.0	
	In Equator	29.961	70.2	53.2	17.0	60.2	- 1.8	54.4	49.3	10.9	21.8	2.8	67	131.1	44.6	0.000	0.0	
		30.025	73.7	48.1	25.6	61.5	- 0.3	55.7	50.7	10.8	22.1	0.4	69	127.6	39.1	0.000	0.0	
		29.960	81.9	53.9	28.0	67.5	+ 5.9	59.8	53.7	13.8	27.4	4.2	61	139.5	43.4	0.000	0.0	
	Apogee	30.088	80.9	54.8	26.1	67.7	+ 6.3	61.3	56.2	11.5	21.2	1.5	66	135.9	44.2	0.000	0.0	
		30.232	71.9	53.0	18.9	61.8	+ 0.5	55.3	49.7	12.1	23.2	3.0	65	125.1	46.7	0.000	1.0	
		30.218	73.1	53.3	19.8	62.7	+ 1.6	56.9	52.0	10.7	18.7	3.0	69	140.6	46.1	0.000	0.0	
	First Quarter	30.171	74.9	44.5	30.4	61.7	+ 0.7	56.4	51.9	9.8	21.4	1.4	70	142.9	37.5	0.000	0.0	
		30.084	77.9	45.2	32.7	63.4	+ 2.5	57.3	52.2	11.2	24.8	0.8	67	134.0	36.4	0.000	0.0	
		29.977	75.4	49.1	26.3	62.4	+ 1.6	59.2	56.5	5.9	14.6	0.4	81	128.4	39.0	0.000	mP : wP : wwp	
	Greatest Declination S.	29.654	83.1	54.3	28.8	68.2	+ 7.4	61.2	55.7	12.5	29.9	0.0	64	138.5	43.2	0.000	0.0	
		29.324	63.3	50.5	12.8	56.4	- 4.4	53.2	50.2	6.2	13.9	1.5	80	122.3	46.5	0.574	vP, ssN	
		29.607	64.6	47.4	17.2	53.8	- 6.9	49.7	45.7	8.1	17.9	0.2	74	133.3	41.8	0.435	mP : mP : vP, vN	
	Full	29.698	63.5	47.0	16.5	53.9	- 6.7	48.2	42.6	11.3	19.4	2.6	66	124.0	40.7	0.000	mP : sP : eP	
		29.893	65.8	49.5	16.3	56.3	- 4.0	50.9	45.9	10.4	17.3	4.2	68	118.2	40.2	0.000	mP : vP	
		29.898	70.6	55.2	15.4	60.9	+ 0.8	56.8	53.3	7.6	15.5	0.0	76	132.9	46.7	0.000	wwP : wP : mP	
	In Equator	29.846	68.8	56.5	12.3	61.4	+ 1.5	58.1	55.3	6.1	12.2	2.3	81	118.1	50.9	0.349	wP	
		29.876	73.7	52.9	20.8	62.5	+ 0.8	57.2	52.8	9.7	19.4	2.1	71.1	132.1	44.6	2.033	0.9	
Means	...	29.876	73.7	52.9	20.8	62.5	+ 0.8	57.2	52.8	9.7	19.4	2.1	71.1	132.1	44.6	2.033	0.9	
		I	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 50 years' observations, 1841-1890. 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 results on August 30 and 31 for Air and Evaporation temperatures are derived from eye-observations on account of failure of the photographic registers.

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 29.876, being 0.094 higher than the average for the 50 years, 1841-1890.

TEMPERATURE OF THE AIR.

The highest in the month was 84.2° on August 9; the lowest in the month was 44.5° on August 22; and the range was 39.7°.

The mean of all the highest daily readings in the month was 73.7°, being 0.9° higher than the average for the 50 years, 1841-1890.

The mean of all the lowest daily readings in the month was 52.9°, being 0.1° lower than the average for the 50 years, 1841-1890.

The mean of the daily ranges was 20.8°, being 1.0° greater than the average for the 50 years, 1841-1890.

The mean for the month was 62.5°, being 0.8° higher than the average for the 50 years, 1841-1890.

MONTH and DAY, 1901.	Daily Duration of Sunshine, hours. Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.				
		OSLER'S.			ROBIN- SON'S.		A.M.				P.M.		
		General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.	A.M.		P.M.				
		A.M.	P.M.	Greatest, lbs.	Least, lbs.		Mean of Hourly Measures,						
Aug. 1	4·1	15·4	NE : N	N	2·1	0·0	0·09	194	p.-cl	: 9, cu, ci.-cu, th.-cl	6, cu, th.-cl	: p.-el, d	
2	7·2	15·3	NNW : N	N : ESE : ENE	1·6	0·0	0·09	218	p.-cl	: 8, cu	8, cu, ci.-cu	: v, hy.-sh	
3	4·7	15·3	E : Calm : WSW	WSW : SW	1·0	0·0	0·02	148	p.-cl, r	: 9, th.-cl, h, so.-ha	8, cu, ci.-cu, th.-cl	: 8, cu.-s, ci.-cu, th.-cl	
4	0·9	15·2	SW : WSW	W : WSW	2·7	0·0	0·20	276	9	: 9	10, oe.-slt.-r	: 7, cu, ci.-s : p.-el	
5	0·7	15·2	NNW : WSW : NW	W : WSW : SW	1·5	0·0	0·09	216	9	: 10	p.-cl	: p.-el	
6	4·8	15·1	SW : SSW	W : NW	6·3	0·0	0·75	368	p.-cl	: 10, r : 10, fq.-m.-r	8, cu, th.-cl	: 6, cu, th.-cl : p.-cl, w	
7	12·6	15·1	NW : W	W : WSW	4·7	0·0	0·55	349	o	: 4, cu, ci.-cu, th.-cl	3, ci.-cu, li.-cl	: p.-cl	
8	6·1	15·0	WSW	W : SW	2·0	0·0	0·19	280	p.-cl	: 5, cu, ci.-cu, li.-cl	8, cu, ci.-cu, th.-cl	: 6, th.-cl : o, d	
9	13·1	15·0	SW : SSW	S : SE : E	0·7	0·0	0·03	154	o, slt.-f	: 1, li.-cl : 1, ci.-s	1, ci.-s, th.-cl	: th.-cl	
10	10·8	14·9	E : S	SSW : SW : WSW	6·6	0·0	0·62	289	th.-cl	: p.-cl : 5, cl.-cu, cl.-s, th.-cl	6, ci.-cu, th.-cl, w	: th.-cl	
11	14·1	14·8	SW : SSW	SSW : SW : SSE	3·2	0·0	0·34	262	o	: o : 4, cu, li.-cl	4, cu.-s, ci.-s	: p.-cl, shs.-r, l	
12	5·3	14·8	S : SSE : SSW	SW : SSW	5·8	0·0	0·57	310	o, l, d	: 9, eu, hy.-sh	10	: p.-cl : p.-cl	
13	7·2	14·7	SSW : WSW	SW : SSW	2·1	0·0	0·09	228	1, d	: 9, cu, li.-cl : 6, cl.-cu, cl.-s, th.-cl	10	: 6, ci.-s, th.-cl : 1, d	
14	1·3	14·7	S : SSW	SSW : SSE : SE	2·8	0·0	0·19	195	p.-cl	: 9, eu, ci.-cu, th.-cl	10, e.-r	: 10, e.-r : 10, hy.-r	
15	5·2	14·6	SSE : SW : W	NW : NNW	3·6	0·0	0·28	255	10, r	: 10 : v, oc.-r	v, hy.-sh, hl	: p.-cl : o	
16	8·9	14·5	WNW	NW : WNW : WSW	1·7	0·0	0·08	221	o, d	: li.-cl : 8, cu, ci.-cu	6, cu, th.-cl	: p.-cl : 1, ci.-s, th.-cl	
17	7·3	14·5	WSW : SSE : SSW	SSW : SSE : SE	1·1	0·0	0·03	156	o, d	: o : p.-cl, so.-ha	10	: p.-cl : li.-cl	
18	11·3	14·4	SE : E	SE : ESE	0·8	0·0	0·05	140	p.-cl	: p.-cl : o	o	: o	
19	9·2	14·3	NE	NNE : ENE : NE	2·8	0·0	0·25	242	o, h, m, d	: 3, cu, ci.-s, th.-el, so.-ha	6, cu, th.-cl, so.-ha	: p.-cl : p.-cl	
20	13·0	14·3	NE	ENE : ESE : E	3·5	0·0	0·38	319	p.-cl	: o : 2, cu, ci.-s	o	: o : p.-cl	
21	11·6	14·3	ENE	ESE : E	2·0	0·0	0·15	212	p.-cl	: 5, ci, ci.-s	o	: o	
22	11·8	14·2	E : ENE	E : ESE	0·9	0·0	0·04	150	o, d	: f, d : 3, ci.-cu, th.-cl	o	: o	
23	10·6	14·1	ESE : ENE	NE : E : ESE	0·5	0·0	0·01	111	o, m, d	: p.-cl, f : o	o	: o, hy.-d	
24	6·9	14·1	ESE : NE	E	1·0	0·0	0·05	141	tk.-f	: 10, f : 1, li.-cl, h	1, li.-cl	: o, h, hy.-d	
25	10·6	14·0	ENE : ESE	SSE : SW	1·9	0·0	0·06	172	o, hy.-d	: tk.-f : o	4, ci.-s	: p.-cl : p.-cl, li.-shs	
26	4·6	13·9	WSW : W	W : WNW	1·5	0·0	1·74	536	10, hy.-r	: 10, w : 8, hy.-r, l, t, w	10, fq.-r, w	: p.-cl, w	
27	5·7	13·9	WSW	WSW : NNE	4·6	0·0	0·79	412	o, hy.-d	: li.-cl : 8, cu, ci.-s, ci.-s	8	: 10, c.-hy.-r : 10, r	
28	10·3	13·8	NNW : W : WNW	WNW : W : WSW	5·5	0·0	0·71	389	p.-cl	: o : 5, cu, ci.-cu, th.-cl, w	6, cu, th.-cl, slt.-sh	: p.-el	
29	3·6	13·8	WSW : WNW	NW : SW	2·5	0·0	0·09	274	p.-cl	: 9	7, cu, ci.-s, th.-cl, so.-ha	: p.-cl, d	
30	3·2	13·7	SW	WSW	3·6	0·0	0·49	362	p.-cl	: 7, cu, ci, th.-cl	7	: p.-cl : li.-cl, lu.-ha	
31	1·2	13·6	WSW	WNW : NNW : NE	1·3	0·0	0·08	245	p.-cl	: p.-cl : 9, cl.-cu, ci.-s, th.-cl	10	: 10, r : 10	
Means	7·4	14·5	...	...	...	...	0·29	252				
Number of Column for Reference.	19	20	21	22	23	24	25	26	27			28	

The mean Temperature of Evaporation for the month was $57^{\circ}2$, being $0^{\circ}4$ lower than

The mean Temperature of the Dew Point for the month was $52^{\circ}8$, being $1^{\circ}4$ lower than

The mean Degree of Humidity for the month was $71^{\circ}1$, being $5^{\circ}7$ less than

The mean Elastic Force of Vapour for the month was $0^{\text{in}}\cdot400$, being $0^{\text{in}}\cdot021$ less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was $45^{\text{gr}}\cdot4$, being $0^{\text{gr}}\cdot3$ less than

The mean Weight of a Cubic Foot of Air for the month was 529 grains, being 1 grain greater than

The mean amount of Cloud for the month (a clear sky being represented by o, and an overcast sky by 10) was 5·5.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was $0^{\circ}506$. The maximum daily amount of Sunshine was 14·1 hours on August 11.

The highest reading of the Solar Radiation Thermometer was $143^{\circ}7$ on August 8; and the lowest reading of the Terrestrial Radiation Thermometer was $36^{\circ}4$ on August 23.

The mean daily distribution of Ozone for the 12 hours ending 9^h was 0·4; for the 6 hours ending 15^h was 0·2; and for the 6 hours ending 21^h was 0·3.

The Proportions of Wind referred to the cardinal points were N. 6, E. 6, S. 8, and W. 11.

The Greatest Pressure of the Wind in the month was 11·5 lbs. on the square foot on August 26. The mean daily Horizontal Movement of the Air for the month was 252 miles; the greatest daily value was 536 miles on August 26; and the least daily value was 111 miles on August 23.

Rain fell on 10 days in the month, amounting to $2^{\text{in}}\cdot033$, as measured by gauge No. 6 partly sunk below the ground; being $0^{\text{in}}\cdot317$ less than the average fall for the 50 years, 1841-1890.

} the average for the 50 years, 1841-1890.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

MONTH and DAY, 1901.	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 Evapo- ration.	Of the Dew Point.	Degree of Humidity (Saturation = 100).			Of Radiation.							
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.			Mean.	Greatest.	Least.	Highest in Sun's Rays.	Lowest on the Grass.						
Sept. 1	Perigee	in.	65°	51°3	13°7	57°0	- 2°7	50°9	45°3	11°7	20°0	3°0	65	132°2	42°0	0°000	0°0	wP		
2	...	29°917	65°0	51°3	13°7	57°0	- 2°7	50°9	45°3	11°6	16°7	3°6	65	117°0	35°2	0°000	0°0	wP : mP : mP		
3	...	29°966	61°8	45°9	15°9	54°7	- 5°0	48°8	43°1	10°7	18°8	4°6	67	126°0	50°1	0°000	1°0	mP		
4	...	29°900	64°7	52°7	12°0	57°1	- 2°5	51°5	46°4	11°9	21°8	3°8	64	123°2	40°0	0°000	0°0	wP : vN, wP : mP		
5	Last Quarter	29°809	64°5	49°5	15°0	57°3	- 2°1	51°1	45°4	10°3	17°8	4°4	68	137°3	35°0	0°000	0°0	mP : wP : wP		
6	Greatest Declination N.	29°706	64°5	48°2	16°3	55°7	- 3°6	50°4	45°4	9°5	18°9	2°2	70	128°7	28°5	0°000	0°0	wP		
7	...	29°704	65°9	41°8	24°1	54°4	- 4°7	49°6	44°9	9°5	18°9	2°2	70	128°7	28°5	0°000	0°0	wP : vN, wP : mP		
8	...	29°772	69°5	45°3	24°2	58°5	- 0°4	53°2	48°4	10°1	19°3	1°5	69	126°7	35°6	0°000	0°0	wP		
9	...	29°725	76°9	55°5	21°4	63°0	+ 4°3	61°3	59°9	3°1	15°8	1°0	90	139°2	46°5	0°196	0°0	wP : wP : wP, ssN		
10	...	29°744	71°5	56°0	15°5	62°5	+ 4°0	59°4	56°7	5°8	12°4	0°8	81	126°1	45°0	0°009	0°0	wwP : wP : wP		
11	...	29°803	71°5	53°6	17°9	60°6	+ 2°3	58°5	56°7	3°9	14°9	0°0	87	116°0	42°4	0°000	0°0	wwP : wP, vN : wP		
12	New: In Equator	29°851	61°0	51°6	9°4	55°8	- 2°3	53°6	51°5	4°3	7°6	3°0	85	89°0	44°0	0°040	0°0	... : wWp		
13	...	29°837	64°1	53°2	10°9	58°0	0°0	55°6	53°4	4°6	10°1	1°0	85	99°3	43°8	0°000	0°0	wWp : wP : wP		
14	...	29°789	65°1	53°3	11°8	58°1	+ 0°2	55°3	52°8	5°3	12°6	0°5	83	98°1	43°7	0°000	0°0	... : wP		
15	...	29°632	67°1	51°1	16°0	57°9	+ 0°1	52°5	47°6	10°3	18°2	1°6	69	131°6	44°4	0°000	0°2	wP : mP : mP		
16	...	29°653	64°1	51°6	12°5	56°8	- 0°9	52°5	48°5	8°3	14°2	2°2	74	116°1	47°4	0°000	0°8	wP : mP		
17	Apogee	29°611	65°8	39°6	26°2	53°6	- 3°9	50°4	47°2	6°4	16°0	0°0	79	124°3	30°2	0°570	1°0	wP : wP : wP, vN		
18	...	29°320	66°5	53°0	13°5	59°5	+ 2°2	58°5	57°6	1°9	5°4	0°0	94	102°0	48°0	0°276	4°0	... : wP : mN, wP		
19	...	29°827	64°9	47°0	17°9	55°4	- 1°5	49°8	44°5	10°9	18°0	4°0	67	116°2	38°0	0°000	0°0	wP : vP : wP		
20	Greatest Declination S.	29°745	63°4	43°6	19°8	54°4	- 2°1	50°9	47°5	6°9	15°2	3°1	77	113°0	34°2	0°000	4°7	wP : wP : mP		
21	First Quarter	29°382	67°4	52°9	14°5	61°4	+ 5°3	58°1	55°3	6°1	11°2	0°6	81	100°3	45°7	0°253	5°3	... : wP, vN : vP, vN		
22	...	29°324	67°0	54°5	12°5	60°3	+ 4°6	58°6	57°1	3°2	9°0	0°4	90	107°8	44°4	0°004	2°7	wwP : wP : wP		
23	...	29°406	68°5	53°1	15°4	60°4	+ 5°0	56°9	53°9	6°5	19°1	0°0	79	124°7	45°6	0°003	2°3	wwP : wWp : wP		
24	...	29°423	69°0	53°5	15°5	60°3	+ 5°1	58°2	56°3	4°0	11°7	1°0	87	111°9	46°0	0°000	0°0	wP		
25	...	29°668	67°0	52°1	14°9	59°6	+ 4°5	57°3	55°3	4°3	9°7	0°8	86	101°2	40°2	0°000	0°0	wP : ... : ...		
26	...	29°726	70°9	50°3	20°6	59°3	+ 4°3	56°8	54°6	4°7	13°9	0°8	85	111°6	41°9	0°000	0°0	... : mP		
27	In Equator	29°920	65°8	45°0	20°8	55°8	+ 0°9	52°2	48°8	7°0	16°9	0°4	78	106°0	38°1	0°000	0°0	wP		
28	Full Perigee	30°115	68°9	43°7	25°2	56°6	+ 1°7	53°1	49°9	6°7	14°6	1°7	78	117°1	36°4	0°000	2°0	wwP : wP		
29	Perigee	30°117	67°7	56°0	11°7	59°9	+ 5°1	57°3	55°1	4°8	10°8	1°3	84	118°3	49°5	0°000	4°0	wP : wwP		
30	...	30°051	73°5	46°6	26°9	59°9	+ 5°3	55°2	51°1	8°8	21°8	0°6	73	122°3	34°2	0°000	0°0	wwP		
Means	...	29°747	67°2	50°0	17°1	58°0	+ 0°9	54°5	51°2	6°9	14°8	1°6	78°3	116°4	41°1	1°351	0°9	...		
Number of Column for Reference.	I	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 50 years' observations, 1841-1890. 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 results on September 1, 2, 6 to 17, 24 and 25, for Air and Evaporation Temperatures are derived from eye-observations on account of temporary interruption of the photographic registers.

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 29ⁱⁿ.747, being 0ⁱⁿ.059 lower than the average for the 50 years, 1841-1890.

TEMPERATURE OF THE AIR.

The highest in the month was 76°.9 on September 8; the lowest in the month was 39°.6 on September 16; and the range was 37°.3.

The mean of all the highest daily readings in the month was 67°.2, being 0°.1 lower than the average for the 50 years, 1841-1890.

The mean of all the lowest daily readings in the month was 50°.0, being 0°.9 higher than the average for the 50 years, 1841-1890.

The mean of the daily ranges was 17°.1, being 1°.1 less than the average for the 50 years, 1841-1890.

The mean for the month was 58°.0, being 0°.9 higher than the average for the 50 years, 1841-1890.

MONTH and DAY, 1901.	Daily Duration of Sunshine. Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.						
		OSLER'S.			ROBIN- SON'S.			A.M.			P.M.				
		General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.	A.M.		P.M.						
		A.M.	P.M.	Greatest.	Least.	Mean of 24 Hours Measures.									
Sept.	hours.	hours.													
1	9·4	13·6	NE	ENE : ESE : E	1·2	0·0	0·05	199	p.-cl	: 3, ci.-cu, ci.-s, th.-cl	5, cu.-s, th.-cl	: li.-cl, d			
2	4·2	13·5	NE : ENE	ENE : ESE	2·2	0·0	0·10	255	o, hy.-d : p.-cl	: 8, cl.-s, th.-cl, so.-ha	10	: 10			
3	5·4	13·4	NE : ENE	ENE	4·3	0·0	0·51	349	9 : 10	: 8, cu, ci.-cu	7, cu, cl.-cu, cl.-s	: 8	: p.-cl		
4	9·1	13·4	NE : ENE	ENE : NE	14·2	0·0	1·06	434	p.-cl	: 5, cu, ci.-cu, th.-cl, w	3, ci.-cu, th.-cl, st.-w	: p.-cl			
5	7·7	13·3	NNE : ENE	ENE : ESE	6·9	0·0	0·58	316	p.-cl	: 9, cu, cl.-cu, cl.-s, th.-cl	6, cu, th.-cl	: p.-cl	: o		
6	9·4	13·2	ESE : ENE	ESE	1·5	0·0	0·05	162	o, d : o, slt.-m : 4, cu, ci.-cu, cl.-s, th.-cl	8, cu, ci.-cu, th.-cl	: p.-cl				
7	7·1	13·2	E : SE	SE : E	1·5	0·0	0·06	169	p.-cl, d : p.-cl, slt.-m	: 6, cu, cl.-cu, th.-cl	3, s, th.-cl, so.-ha	: li.-cl			
8	2·8	13·1	ESE : SE : SSE	SSW : S : SE	2·0	0·0	0·05	188	p.-cl	: 10, oc.-slt.-r	p.-cl	: 10, fq.-r	: 10, hy.-r		
9	4·6	13·1	SW	SW	2·0	0·0	0·06	228	10, oc.-slt.-r : p.-cl	: 7, cu, cl.-cu, th.-cl	7, cu, th.-cl	: o, hy.-d			
10	2·8	13·0	WSW	WSW : W : NNW	0·6	0·0	0·01	179	10, f : 10, f	: p.-cl, slt.-f	8, cl.-cu, cl.-s, th.-cl	: 5, ci.-cu, s, th.-cl	: li.-cl		
11	0·5	12·9	NNW : WSW : WNW	WNW : NNW	1·4	0·0	0·07	223	p.-cl, d : p.-cl	: 10, oc.-slt.-r	10, fq.-th.-r	: p.-cl	: o, d		
12	0·2	12·9	NNW : N : NNE	N : NNW	1·3	0·0	0·03	195	p.-cl : 10	: 10	10	: p.-cl	: o, f, hy.-d		
13	0·0	12·8	NNW : NNE : N	N : NNW : NNE	1·0	0·0	0·03	225	p.-cl	: 10	10	: 10			
14	6·1	12·7	NNW : NNE	N : NNW	2·0	0·0	0·05	203	p.-cl, m	: 8, cu, ci.-cu, th.-cl	8, cu, th.-cl	: p.-cl	: o, h		
15	4·8	12·7	NNW	NNW	2·4	0·0	0·13	256	p.-cl, d : p.-cl	: 7, cu, cl.-cu, th.-cl	p.-cl	: o, m, d			
16	3·8	12·6	NW : S : SE	SSE : ESE	3·4	0·0	0·04	169	o, f, hy.-d : f	: 5, cl.-cu, cl.-s, th.-cl	7, cu, cl.-cu, th.-cl	: 10, hy.-r	: 10, c.-hy.-r		
17	0·1	12·5	SSE : SE	SSW : SW : WSW	6·0	0·0	0·38	368	10, sh.-r : 10, hy.-shs	: 10, sc, fq.-r	9, li.-sc	: 10, hy.-sh	: 10		
18	7·6	12·5	WNW : WSW	SW : S	3·6	0·0	0·14	281	10 : 10	: 8, cu, th.-cl, m	th.-cl, m	: o	: o, hy.-d		
19	2·7	12·4	SSE	S : SE	3·4	0·0	0·13	283	o, hy.-d : li.-cl	: 10	9, cu, th.-cl	: th.-cl	: li.-cl, d		
20	0·7	12·3	ESE : SSE : SSW	S : SSE	9·2	0·0	0·72	381	p.-cl : p.-cl	: 9, li.-sc, w	10, hy.-shs, w	: 10, fq.-r			
21	0·1	12·3	ESE : SE	SSE	2·4	0·0	0·06	201	10 : 10		10	: 10, shs.-r	: li.-cl, d		
22	8·9	12·2	SE : E	SE : E	2·0	0·0	0·04	188	o, d : li.-cl	: 5, cu, ci.-cu, cl.-s, so.-ha	6	: p.-cl	: li.-cl		
23	0·7	12·1	E : SE	SSE : ESE	0·7	0·0	0·02	171	9, m : 10	: 10	9	: p.-cl	: li.-cl, hy.-d		
24	0·3	12·1	SE	SE : E	0·0	0·0	0·00	121	1, hy.-d : li.-cl	: 9, th.-cl, so.-ha	10, th.-cl, so.-ha	: p.-cl	: 10, th.-cl, d, f		
25	1·2	12·0	Calm	SSE : S	0·0	0·0	0·00	98	p.-cl, f, d	: 9	10	: p.-cl	: o, d		
26	6·3	12·0	SSW : NNW	NW : WSW : SSW	0·2	0·0	0·01	150	p.-cl, f, d	: 5, cu, th.-cl, m	o, m		: o, d		
27	3·7	11·9	S : SSE : SSW	SSW : S	1·8	0·0	0·07	263	o, d : li.-cl	: 4, ci, ci.-s	p.-cl		: p.-cl, d		
28	0·2	11·8	S	SSW : S	1·1	0·0	0·05	225	p.-cl, d	: 9	9	: p.-cl, d			
29	9·1	11·8	S : Calm	S : SE : E	0·6	0·0	0·00	86	p.-cl, tk.-f	: o, tk.-f	o		: o, hy.-d		
30	2·2	11·7	Calm : Variable	ESE : SSE	0·0	0·0	0·00	70	o, f : tk.-f	: 5, cu, cl.-cu, th.-cl	10	: p.-cl	: 1, li.-cl, slt.-f		
Means	4·1	12·6	...	...	...	...	0·15	221						
Number of Column for Reference.	19	20	21	22	23	24	25	26		27		28			

The mean Temperature of Evaporation for the month was 54°·5, being 0°·3 higher than the mean Temperature of the Dew Point for the month was 51°·2, being 0°·2 lower than the mean Degree of Humidity for the month was 78·3, being 2·5 less than the mean Elastic Force of Vapour for the month was 0in·377, being 0in·002 less than the mean Weight of Vapour in a Cubic Foot of Air for the month was 4grs·2, being the same as the mean Weight of a Cubic Foot of Air for the month was 531 grains, being 2 grains less than the mean amount of Cloud for the month (a clear sky being represented by o, and an overcast sky by 10) was 6·5.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·321. The maximum daily amount of Sunshine was 9·4 hours on September 1 and 6.

The highest reading of the Solar Radiation Thermometer was 139°·2 on September 8; and the lowest reading of the Terrestrial Radiation Thermometer was 28°·5 on September 6.

The mean daily distribution of Ozone for the 12 hours ending 9^h was 0·4; for the 6 hours ending 15^h was 0·5; and for the 6 hours ending 21^h was 0·0.

The Proportions of Wind referred to the cardinal points were N. 6, E. 10, S. 10, and W. 2. Two days were calm.

The Greatest Pressure of the Wind in the month was 14·2 lbs. on the square foot on September 4. The mean daily Horizontal Movement of the Air for the month was 221 miles; the greatest daily value was 434 miles on September 4; and the least daily value was 70 miles on September 30.

Rain fell on 6 days in the month, amounting to 1in·351, as measured by gauge No. 6 partly sunk below the ground; being 0in·900 less than the average fall for the 50 years, 1841-1890.

} the average for the 50 years, 1841-1890.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

(I)

MONTH and DAY, 1901.	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 Evapo- ration.	Of the Dew Point.	Degree of Humidity (Saturation = 100).			Of Radiation.										
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean.	Greatest.	Least.	Highest in Sun's Kays.	Lowest on the Grass.								
Oct.	Greatest Declination N.	in.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	in.	... : wP : vP, vN wwP, vN : wP wwP : wP			
	1	29°821	75°3	50°1	25°2	62°1	+ 8°0	58°7	55°8	6°3	16°8	0°6	80	133°8	40°0	0°074	0°0	...	... : wP : vP, vN wwP, vN : wP wwP : wP	
	2	29°681	66°8	57°4	9°4	60°8	+ 7°0	59°8	59°0	1°8	5°0	0°6	94	88°9	52°0	0°653	0°0	...	... : wP : vP, vN wwP, vN : wP wwP : wP	
	3	29°843	67°9	51°0	16°9	58°5	+ 5°0	55°2	52°2	6°3	12°8	0°2	80	112°2	44°0	0°000	0°0	...	... : wP : vP, vN wwP, vN : wP wwP : wP	
	4	Last Quarter	29°828	56°9	48°8	8°1	53°0	- 0°2	52°0	51°0	2°0	7°2	0°4	93	61°1	42°3	0°514	0°0	wP : ...			
	5	...	29°705	57°5	41°2	16°3	50°2	- 2°8	47°7	45°1	5°1	11°4	0°7	83	104°2	30°2	0°008	0°0	... : wwP			
	6	...	29°222	59°1	44°1	15°0	50°2	- 2°5	47°2	44°0	6°2	11°4	1°4	80	82°9	38°0	0°163	0°0	wwP : wwP, mN : wP			
	7	...	29°469	51°7	40°7	11°0	46°3	- 6°2	42°3	37°8	8°5	13°0	3°7	73	84°4	33°9	0°003	0°0	wwP : wP : mP			
	8	...	29°460	59°1	41°8	17°3	50°5	- 1°6	49°8	49°1	1°4	5°5	0°0	95	69°9	37°2	0°027	0°0	wP : wP : mP			
	9	...	29°566	58°7	45°8	12°9	52°6	+ 0°9	47°4	42°2	10°4	13°5	4°6	68	86°0	40°0	0°000	1°0	wwP : vP : mP			
	10	In Equator	30°014	59°7	37°2	22°5	50°2	- 1°1	47°0	43°6	6°6	11°4	1°3	79	99°6	31°0	0°000	0°0	vP : mP			
	11	...	30°006	54°5	49°3	5°2	51°6	+ 0°6	50°4	49°2	2°4	4°6	0°6	92	68°1	43°4	0°000	0°0	wP : wP : mP			
	12	New	29°943	62°3	46°5	15°8	53°5	+ 2°9	51°6	49°8	3°7	12°3	1°0	87	108°0	38°0	0°000	0°0	wP			
	13	...	29°947	58°1	42°9	15°2	50°4	+ 0°1	47°1	43°6	6°8	12°7	0°2	78	98°2	33°7	0°000	0°0	wP			
	14	...	29°787	58°4	41°8	16°6	49°7	- 0°4	46°8	43°7	6°0	14°1	2°5	80	95°1	33°3	0°000	0°0	wP			
	15	Apogee	29°637	59°2	36°5	22°7	49°2	- 0°7	46°5	43°6	5°6	12°4	1°1	81	100°1	27°3	0°000	0°0	wP : mP : mP			
	16	Greatest Declination S.	29°414	58°4	49°2	9°2	53°4	+ 3°6	52°7	52°0	1°4	3°8	0°2	95	87°0	40°1	0°536	0°5	wP, wN : vP, vN : wwP			
	17		29°313	61°7	48°2	13°5	55°0	+ 5°4	52°3	49°7	5°3	10°8	1°4	83	110°0	38°7	0°004	2°7	wwP : wwP : wP, wWwN			
	18		29°262	57°4	46°1	11°3	54°2	+ 4°7	52°9	51°6	2°6	4°8	1°0	91	74°2	38°2	0°556	4°3	wwP : wwP : vN, wP			
	19	...	29°496	60°1	42°3	17°8	50°5	+ 1°2	47°6	44°6	5°9	14°3	0°9	81	103°8	35°7	0°001	1°5	wwP : wP : ssN, mP			
	20	First Quarter	29°684	56°9	36°2	20°7	44°6	- 4°4	43°1	41°4	3°2	12°8	0°7	89	102°0	29°1	0°000	0°7	mP wN, vP : mP			
	21	...	29°599	53°1	33°6	19°5	43°8	- 5°0	42°7	41°4	2°4	7°4	0°0	91	73°6	28°8	0°001	1°6				
	22	...	29°673	53°9	39°1	14°8	45°8	- 2°7	44°8	43°7	2°1	6°6	0°4	93	79°5	30°9	0°008	0°7	mP : wP : mP			
	23	...	29°884	53°3	40°0	13°3	45°7	- 2°5	44°0	42°0	3°7	10°4	0°7	87	84°7	32°0	0°004	0°0	wP, wwN : mP : mP			
	24	In Equator	29°932	53°7	36°5	17°2	47°6	- 0°3	46°1	44°4	3°2	8°6	1°4	90	68°2	27°7	0°024	0°0	mP : wP : wP			
	25	...	29°881	51°6	37°3	14°3	44°4	- 3°2	42°7	40°7	3°7	9°7	1°3	87	71°0	28°7	0°000	0°0	wP : vP : sP			
	26	...	30°021	52°5	32°1	20°4	40°6	- 6°8	39°3	37°7	2°9	10°8	0°0	90	89°0	25°0	0°000	0°0	mP vP : wP : wP			
	27	Full	30°178	56°8	29°9	26°9	43°8	- 3°5	41°2	38°2	5°6	13°0	0°0	80	93°6	27°6	0°000	0°0				
	28	Perigee	30°000	60°0	46°9	13°1	52°9	+ 5°7	49°8	46°8	6°1	11°2	2°3	80	102°4	41°7	0°000	0°2	wwP : wP			
	29	Greatest Declination N.	29°886	56°1	51°0	5°1	52°8	+ 5°8	51°1	49°4	3°4	7°2	1°2	89	68°1	44°5	0°000	0°8	wwP : wP : mP			
	30		30°042	56°1	46°6	9°5	50°9	+ 3°9	46°9	42°7	8°2	12°5	3°8	75	104°0	38°2	0°021	3°2				
	31	...	30°103	55°0	46°2	8°8	49°6	+ 2°8	44°5	39°0	10°6	18°4	5°0	67	92°0	37°9	0°000	2°8	wP : mP			
Means	...	29°752	58°1	43°1	15°0	50°5	+ 0°4	48°1	45°6	4°8	10°5	1°3	84°2	90°2	35°8	2°597	0°6	...				
Number of Column for Reference.	I	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 50 years' observations, 1841-1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 10) 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 results on October 4, 8, 9 and 30 for Air and Evaporation Temperatures are derived from eye-observations on account of failure of the photographic registers.

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°752, being 0°36 higher than the average for the 50 years, 1841-1890.

TEMPERATURE OF THE AIR.

The highest in the month was 75°3 on October 1; the lowest in the month was 29°9 on October 27; and the range was 45°4.

The mean of all the highest daily readings in the month was 58°1, being 0°4 higher than the average for the 50 years, 1841-1890.

The mean of all the lowest daily readings in the month was 43°1, being 0°2 lower than the average for the 50 years, 1841-1890.

The mean of the daily ranges was 15°0, being 0°6 greater than the average for the 50 years, 1841-1890.

The mean for the month was 50°5, being 0°4 higher than the average for the 50 years, 1841-1890.

MONTH and DAY, 1901.	Daily Duration of Sunshine. Sun above Horizon,	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.		
		OSLER'S.			ROBIN- SON'S.			A.M.		P.M.	
		General Direction.		Pressure on the Square Foot.		Greatest. Least. Mean of 24 Hourly Measures.	Horizontal Movement of the Air.				
		A.M.	P.M.								
Oct. 1	hours. hours.	6.9 11.6	Calm : ESE : SE	S : SE : E	lbs. lbs. lbs.	3.8 0.0 0.10	166 miles.				
2	0.0	11.6	E	NNW : Variable	0.2 0.0 0.00	89	v, li.-cl, tk.-f : li.-cl, f : 7, cu, cl.-cu, cl.-s, so.-ha	7, cu, ci.-cu, ci.-s : p.-cl, shs.-r			
3	6.5	11.5	SW	SW : SSW	0.8 0.0 0.02	188	9, shs.-r : 10, fq.-r	10 : 10, slt.-f			
4	0.0	11.4	S : Calm	NNW : NW	1.6 0.0 0.11	231	p.-cl, slt.-f : 8, h	5, cu, ci.-cu, ci.-s : 1, d			
5	3.1	11.4	NW : SSW	SSW : SW : WSW	5.2 0.0 0.56	339					
6	1.6	11.3	WSW : SW : SSW	WNW : W : WSW	26.0 0.0 2.10	585					
7	5.0	11.2	WSW : W	W : WSW	7.5 0.0 1.23	494					
8	0.1	11.1	WSW : SW : SSW	S : SSW : SW	9.8 0.0 0.58	385					
9	2.8	11.1	SW : WSW : W	NW : NNW : N	18.2 0.0 1.88	515					
10	6.5	11.0	Variable : S	SW : SSW	0.8 0.0 0.03	161					
11	0.0	11.0	SSW : SW : N	N : ENE : NNE	0.6 0.0 0.00	143					
12	4.3	10.9	NNE : E	ESE	0.1 0.0 0.00	99					
13	2.9	10.8	E : Calm	NE : E : ENE	0.1 0.0 0.00	99					
14	3.2	10.8	Variable : Calm : NE	E : ESE	0.1 0.0 0.00	107					
15	6.3	10.7	Calm : NE	NE : ENE	0.2 0.0 0.00	100					
16	0.1	10.6	NE : Calm	SE : ESE : SSE	3.8 0.0 0.13	145					
17	5.4	10.6	S : SSE	SSW : S	6.2 0.0 0.46	307					
18	0.4	10.5	S : SSE : SE	S : SSW : SW	6.6 0.0 0.52	315					
19	7.7	10.5	S : SSW : SW	SW : SSW : S	0.8 0.0 0.01	202					
20	6.9	10.4	S : SSW : Calm	SSW : SSE	0.1 0.0 0.00	132					
21	0.2	10.3	Calm : Variable	SE	0.0 0.0 0.00	70					
22	0.2	10.2	Variable : ESE	SE : NE : S	0.4 0.0 0.00	118					
23	2.8	10.2	SE : S : SW	SW : SSW	1.1 0.0 0.02	175					
24	0.0	10.1	SSW : S : SSE	S : SW	3.7 0.0 0.38	303					
25	0.2	10.1	SW : SSW	SW : WSW : S	0.6 0.0 0.01	171					
26	2.5	10.0	SW : Variable	N : S	0.3 0.0 0.00	104					
27	6.6	10.0	SSW : SE	SSW : S	2.0 0.0 0.15	224					
28	6.1	9.9	S : SSW	SSW	3.7 0.0 0.57	388					
29	0.0	9.8	SSW : S	NE : NNE : N	3.2 0.0 0.03	154					
30	3.5	9.8	N : NNE : NE	NE : NNE	12.0 0.0 1.05	459					
31	8.4	9.7	NE	NE	16.7 0.0 2.25	596					
Means	3.2	10.6	...	...	...	0.39	244			
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28	

The mean Temperature of Evaporation for the month was $48^{\circ}1$, being $0^{\circ}1$ higher than

The mean Temperature of the Dew Point for the month was $45^{\circ}6$, being $0^{\circ}3$ lower than

The mean Degree of Humidity for the month was 84.2 , being 1.4 less than

The mean Elastic Force of Vapour for the month was $0^{in}.306$, being $0^{in}.003$ less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was $3^{grs}.5$, being the same as

The mean Weight of a Cubic Foot of Air for the month was 540 grains, being 1 grain 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 0.304 . The maximum daily amount of Sunshine was 8.4 hours on October 31.

The highest reading of the Solar Radiation Thermometer was $133^{\circ}8$ on October 1; and the lowest reading of the Terrestrial Radiation Thermometer was $25^{\circ}0$ on October 26.

The mean daily distribution of Ozone for the 12 hours ending 9^h was 0.4 ; for the 6 hours ending 15^h was 0.2 ; and for the 6 hours ending 21^h was 0.0 .

The Proportions of Wind referred to the cardinal points were N. 4, E. 6, S. 12, and W. 6. Three days were calm.

The Greatest Pressure of the Wind in the month was 26.0 lbs. on the square foot on October 6. The mean daily Horizontal Movement of the Air for the month was 244 miles; the greatest daily value was 596 miles on October 31; and the least daily value was 70 miles on October 21.

Rain fell on 11 days in the month amounting to $2^{in}.597$, as measured by gauge No. 6 partly sunk below the ground; being $0^{in}.214$ less than the average fall for the 50 years, $1841-1890$.

the average for the 50 years, 1841-1890.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

MONTH and DAY, 1890.	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 Evapo- ration.	Of the Dew Point.	Of Radiation.											
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Mean of 24 Hourly Values.	Dedu- ced Mean Daily Value.	Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	Highest in Sun's Rays.	Lowest on the Grass.						
Nov. 1	...	in.	30°124	51°0	42°0	9°0	46°6	- 0°1	43°2	39°4	7°2	12°0	4°0	77	91°9	32°0	0°000	0°0	wP : wP : mP		
2	...	30°203	52°2	35°8	16°4	44°0	- 2°5	40°2	35°7	8°3	14°4	0°7	72	89°9	24°8	0°000	0°0	mP : mP : sP			
3	Last Quarter	30°205	50°9	28°9	22°0	38°4	- 7°9	37°6	36°5	1°9	9°4	0°0	94	82°1	20°8	0°000	0°0	vP : mP			
4	...	30°191	48°8	28°2	20°6	36°2	- 9°9	35°6	34°7	1°5	8°0	0°0	95	53°1	20°3	0°000	0°0	vP : sP			
5	...	30°258	38°9	32°2	6°7	35°8	- 10°1	35°6	35°3	0°5	1°4	0°0	98	41°0	32°2	0°000	0°0	vP			
6	In Equator	30°151	40°8	30°2	10°6	34°9	- 10°6	34°7	34°4	0°5	4°6	0°0	98	64°0	29°4	0°000	0°0	wP : mP : sP			
7	...	30°106	46°0	30°4	15°6	39°4	- 5°7	39°2	38°9	0°5	1°1	0°0	98	49°1	29°3	0°000	0°0	mP			
8	...	30°040	50°8	44°0	6°8	47°2	+ 2°6	43°6	39°6	7°6	10°9	3°4	76	65°7	30°0	0°000	0°0	wP : mP			
9	...	30°010	48°9	42°5	6°4	46°0	+ 2°0	43°1	39°8	6°2	8°4	3°7	80	57°9	34°6	0°000	0°5	mP : sP			
10	...	29°903	52°0	45°5	6°5	49°1	+ 5°5	45°1	40°8	8°3	10°8	5°2	73	58°4	42°7	0°000	1°7	wP : mP			
11	New: Apogee	29°672	54°8	47°8	7°0	50°5	+ 7°3	46°5	42°3	8°2	11°4	3°6	75	69°0	41°2	0°000	2°8	wwN, wwP : wwP			
12	...	29°160	52°9	48°7	4°2	50°4	+ 7°5	47°8	45°1	5°3	9°6	2°3	82	57°0	43°8	0°044	4°0				
13	Greatest Declination S.	28°905	50°8	40°5	10°3	45°7	+ 2°9	43°2	40°3	5°4	10°6	1°3	82	54°4	33°2	0°172	3°0	... : wP : vP, sN			
14	...	29°198	40°7	33°0	7°7	37°5	- 5°1	35°4	32°5	5°0	12°2	2°2	83	72°8	24°0	0°175	0°0	vP, vN : sP			
15	...	29°478	38°7	26°5	12°2	32°5	- 10°0	30°6	26°6	5°9	8°5	2°5	78	57°3	18°0	0°000	0°0	mP : sP : sP			
16	...	29°870	31°3	21°2	10°1	26°7	- 15°7	26°3	24°4	2°3	5°7	0°0	90	36°1	16°2	0°000	0°0	vP : ssP : ssP			
17	...	30°233	39°9	20°6	19°3	31°8	- 10°5	30°4	27°1	4°7	8°7	1°8	81	57°9	12°2	0°000	0°0	sP : sP : mP			
18	...	30°155	47°9	34°1	13°8	42°0	- 0°2	39°2	35°7	6°3	9°7	4°1	79	67°2	26°2	0°000	0°0	wP : mP : mP			
19	First Quarter	29°951	52°5	47°8	4°7	50°7	+ 8°5	46°8	42°7	8°0	10°4	5°0	75	57°1	41°8	0°009	0°7	wP			
20	...	29°811	53°9	49°2	4°7	51°7	+ 9°6	47°8	43°9	7°8	9°2	5°0	75	60°1	42°5	0°000	2°3	wP : mP : mP			
21	In Equator	29°678	53°3	47°2	6°1	50°8	+ 8°7	48°4	45°9	4°9	6°4	2°8	84	60°8	40°1	0°075	0°0	wP			
22	...	29°822	48°0	35°0	13°0	40°9	- 1°3	39°9	38°7	2°2	4°6	1°5	92	49°0	25°0	0°160	0°0	wP : vP, vN : sP			
23	...	30°271	44°3	30°3	14°0	38°0	- 4°1	35°4	31°9	6°1	9°2	2°0	78	74°2	20°5	0°000	0°0	sP			
24	...	30°426	42°1	24°3	17°8	34°8	- 7°3	33°4	31°1	3°7	7°0	0°9	86	65°9	18°8	0°000	0°0	sP			
25	Perigee	30°432	41°8	30°4	11°4	35°2	- 6°8	32°9	29°3	5°9	9°9	2°0	78	57°2	17°8	0°000	0°0	sP : ssP			
26	Full Greatest Declination N.	30°310	43°9	32°7	11°2	39°5	- 2°4	38°3	36°7	2°8	6°2	0°0	90	53°3	24°2	0°023	0°0	vP, wN : sP : mP			
27	...	30°238	46°0	38°6	7°4	42°6	+ 1°0	41°4	40°0	2°6	7°0	0°7	90	53°5	33°2	0°009	0°5	... : wP : sP			
28	...	30°191	45°7	38°2	7°5	42°2	+ 0°9	39°2	35°5	6°7	11°7	4°0	78	65°9	29°1	0°000	2°5	mP : sP : sP			
29	...	30°319	43°8	32°2	11°6	38°4	- 2°6	35°8	32°3	6°1	9°2	2°3	79	49°1	24°3	0°000	0°0	sP			
30	...	30°267	46°7	39°6	7°1	43°5	+ 2°8	41°0	38°0	5°5	7°4	3°2	81	52°8	32°4	0°000	0°0	mP : sP : mP			
Means	...	29°986	46°6	35°9	10°7	41°4	- 1°8	39°3	36°5	4°9	8°5	2°1	83°2	60°8	28°7	0°667	0°6	...			
Number of Column for Reference.	I	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 50 years' observations, 1841-1890. 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 results on November 2, 8, 21 and 22 for Air and Evaporation Temperatures, and that for November 26 for the Barometer, are derived from eye-observations on account of failure of the photographic registers.

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°986 in., being 0°242 higher than the average for the 50 years, 1841-1890.

TEMPERATURE OF THE AIR.

The highest in the month was 54°8 on November 11; the lowest in the month was 20°6 on November 17; and the range was 34°2.

The mean of all the highest daily readings in the month was 46°6, being 2°2 lower than the average for the 50 years, 1841-1890.

The mean of all the lowest daily readings in the month was 35°9, being 1°7 lower than the average for the 50 years, 1841-1890.

The mean of the daily ranges was 10°7, being 0°6 less than the average for the 50 years, 1841-1890.

The mean for the month was 41°4, being 1°8 lower than the average for the 50 years, 1841-1890.

MONTH and DAY, 1901.	Daily Duration of Sunshine. Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.				
		OSLER'S.			ROBIN- SON'S.		A.M.				P.M.		
		General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.	A.M.			P.M.			
		A.M.	P.M.	Greatest.	Least.		Mean of 24 Hours.	Miles.					
Nov. 1	hours. hours.	NE : ENE	ENE	lbs.	lbs.	lbs.	miles.	398					
2	7.4	9.6	ENE : E	ENE	0.6	0.0	0.02	146	o, w : li.-cl, w : 5, cu, cl, cu, th, cl,	o, w	: o, d		
3	3.9	9.5	ENE	E : ENE : Calm	0.1	0.0	0.00	96	o, ho-fr : o, slt-f : o	o	: o, f, ho-fr		
4	2.2	9.4	Calm	ENE : NNW : NNE	0.1	0.0	0.00	63	tk, f, ho-fr : tk-f : o	o	: o, f, ho-fr		
5	0.0	9.4	NNE : NW	N : Variable : Calm	0.1	0.0	0.00	51	tk-f : tk-f : o, f	o	: tk-f : tk-f		
6	1.2	9.3	SSW	SSW : SW	0.1	0.0	0.00	148	f : tk-f : p-cl, tk-f	10, tk-f	: tk-f		
7	0.0	9.3	SW : SSW	SSW	0.1	0.0	0.00	138	9, f : 10, slt-f	10, glm, slt-f : 10, slt-f	: 10, slt-f		
8	0.0	9.2	SW : W	WNW : W : NW	1.9	0.0	0.09	224	10, slt-f : 10, slt-f : 10	10	: 9 : 10		
9	0.0	9.2	SW	SW : SSW	1.0	0.0	0.08	252	10 : 10	10	: 10		
10	0.0	9.1	SSW	SSW	3.0	0.0	0.35	351	10 : 10	10	: 10		
11	0.0	9.1	SSW	SSW : S	4.5	0.0	0.70	440	o : p-cl : 9	9, cu, n, cu-s	: p-cl		
12	0.0	9.0	S : SSE	SSE : S : SSW	14.1	0.0	2.43	652	10, slt-r : 10, w	10, sc, fq-slt-r, w	: 10, sc, w		
13	0.0	8.9	SSW : S	SSW : NW	12.0	0.0	1.39	471	li-cl, w : li-cl	10, fq-slt-r	: 10, oc-r		
14	1.3	8.9	NW	NW	10.8	0.0	1.21	366	10, r, w : p-cl	8, slt-sn : p-cl	: o, ho-fr		
15	4.1	8.9	NW : SSW	SSW : SSE	0.3	0.0	0.00	183	o, ho-fr : o	3, th-cl	: th-cl		
16	0.0	8.8	Variable : Calm	Variable : SSW	0.0	0.0	0.00	91	p-cl, f, ho-fr : tk-f, ho-fr	f	: f		
17	4.0	8.8	SSW	SSW	1.2	0.0	0.04	206	o, f, ho-fr : o, slt-f	o	: o, ho-fr		
18	0.8	8.7	SSW	SW : SSW	10.0	0.0	0.98	496	o, f, ho-fr : p-cl	p-cl	: 10, w		
19	0.0	8.7	SW	SW	13.5	0.0	3.06	787	10, w : 10, w : 10, sc, oc-r	10, sc, w	: 10, sc, w		
20	0.0	8.6	SW	SSW	10.7	0.0	1.80	616	10, w : 10, w : 10, sc	10, w	: p-cl, lu-ha, lu-co, w		
21	0.0	8.6	SSW : S	SSW : SW	4.2	0.0	1.00	473	v, w : p-cl, oc-r : 10, fq-th-r	10, fq-th-r	: p-cl		
22	0.0	8.5	SSW	NNE : N	3.4	0.0	0.23	271	9 : 10 : 10, glm, oc-r	10, sc, c-r : 10	: o		
23	5.5	8.5	N	N : NNW	0.8	0.0	0.02	174	p-cl, ho-fr : p-cl	o	: o, slt-f, ho-fr		
24	3.3	8.4	NW : Variable	NNE : N : NNW	0.1	0.0	0.00	106	p-cl, f, ho-fr : o, slt-f	o	: o, ho-fr, slt-f, lu-co		
25	2.7	8.4	NNW	NNW : N : NNE	0.1	0.0	0.00	119	o, f, ho-fr : o, slt-f	2, th-cl	: p-cl, ho-fr : 10, slt-f		
26	0.0	8.3	Variable : NNW	NNW	2.1	0.0	0.15	227	10, oc-r, sl : 10	8, cu, ci-cu, th-cl	: p-cl, slt-f		
27	0.0	8.3	N : NNW	NNW : NW	2.7	0.0	0.14	223	p-cl, slt-f, sh-r : 8, cu, ci-cu, th-cl	10	: 9, lu-co		
28	2.8	8.3	WSW : NW : NNW	NNW : WNW	5.2	0.0	0.78	376	p-cl : li-cl	7, cu, ci-cu, th-cl	: li-cl		
29	0.8	8.2	WNW : W : SW	SW : WSW	2.8	0.0	0.19	292	p-cl, ho-fr	6, cu, ci-cu, th-cl	: th-cl, slt-f		
30	0.0	8.2	SW : WSW	WSW : SW	1.7	0.0	0.29	355	10 : 10	10	: 10		
Means	1.5	8.9	...	...	...	...	0.53	293				
Number of Column for Reference.	19	20	21	22	23	24	25	26	27		28		

The mean Temperature of Evaporation for the month was $39^{\circ}3$, being $2^{\circ}3$ lower than the mean Temperature of the Dew Point for the month was $36^{\circ}5$, being $3^{\circ}2$ lower than

The mean Degree of Humidity for the month was $83^{\circ}2$, being $4^{\circ}3$ less than

The mean Elastic Force of Vapour for the month was $0.16^{\circ}216$, being $0.16^{\circ}028$ less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was $2.07^{\circ}5$, being $0.07^{\circ}3$ less than

The mean Weight of a Cubic Foot of Air for the month was 555 grains, being 7 grains greater than

The mean amount of Cloud for the month (a clear sky being represented by o, and an overcast sky by 10) was 6.3 .

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.175 . The maximum daily amount of Sunshine was 7.4 hours on November 2.

The highest reading of the Solar Radiation Thermometer was $91^{\circ}9$ on November 1; and the lowest reading of the Terrestrial Radiation Thermometer was $12^{\circ}2$ on November 17.

The mean daily distribution of Ozone for the 12 hours ending 9^h was 0.5; for the 6 hours ending 15^h was 0.0; and for the 6 hours ending 21^h was 0.1.

The Proportions of Wind referred to the cardinal points were N. 7, E. 3, S. 11, and W. 7. Two days were calm.

The Greatest Pressure of the Wind in the month was 14.1 lbs. on the square foot on November 12. The mean daily Horizontal Movement of the Air for the month was 293 miles; the greatest daily value was 787 miles on November 19; and the least daily value was 51 miles on November 5.

Rain fell on 8 days in the month, amounting to $0.16^{\circ}667$, as measured by gauge No. 6 partly sunk below the ground; being $1.16^{\circ}599$ less than the average fall for the 50 years, 1841-1890.

} the average for the 50 years, 1841-1890.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

MONTH and DAY, 1901.	Phases of the Moon.	BARO- METER.	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 Evapo- ration.	Of the Dew Point.	Mean. Greatest.	Least.	High in Sun's Rays.	Lowest on the Grass.							
		Mean of 24 Hourly Values (corrected to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Mean of 24 Hourly Values.	Dedu- ced Mean Daily Value.	Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).						
Dec. 1		in.	o	o	o	o	o	o	o	o	o	o	o	o	o	o	in.	wP : mP : mP	
2	Last Quarter	30°147	48°0	40°5	7°5	45°5	+ 4°9	42°7	39°5	6°0	7°1	2°9	80	62°2	34°2	0°000	0°0	wP : mP : wP	
3	In Equator	30°112	51°7	45°3	6°4	47°7	+ 7°1	45°3	42°7	5°0	7°1	1°1	84	73°8	35°9	0°000	0°2	wP : sP : sP	
4	...	30°099	48°4	37°0	11°4	44°4	+ 3°6	40°5	36°0	8°4	10°7	4°4	72	53°4	25°0	0°000	0°8	vP, vN : mP	
5	...	30°219	41°4	33°0	8°4	38°1	- 3°0	37°3	36°2	1°9	3°1	1°0	93	47°9	22°0	0°000	0°0	wP : mP : mP, ssN	
6	...	30°001	44°9	30°8	14°1	40°1	- 1°2	38°2	35°7	4°4	8°4	2°9	85	60°2	23°6	0°006*	0°0	mP : sP : mP	
7	...	30°009	49°0	34°3	14°7	42°5	+ 1°2	40°4	37°9	4°6	9°7	1°0	84	68°7	28°0	0°000	0°0	vP, vN : mP	
8	Apogee	29°854	55°2	49°0	6°2	52°5	+ 11°5	50°4	48°3	4°2	6°6	3°4	86	57°2	45°0	0°033	1°0	wwP : wP	
9	...	29°491	54°7	45°2	9°5	51°6	+ 11°0	50°2	48°8	2°8	6°9	2°0	90	57°0	39°0	0°152	5°0	... : wP, wwN : wP	
10	...	29°439	46°0	38°3	7°7	42°2	+ 1°9	39°5	36°2	6°0	11°2	2°5	80	70°6	30°5	0°149	2°0	vP, ssN : mP, ssN : mP	
11	New: Greatest Dec. S.	29°528	41°1	33°1	8°0	37°6	- 2°3	35°8	33°3	4°3	12°0	1°1	85	54°2	28°6	0°134	0°0	vP, ssN : sP	
12	...	29°513	41°8	32°9	8°9	36°9	- 2°9	35°4	33°3	3°6	7°6	2°3	87	55°0	27°2	0°000	0°5	mP : sP : sP	
13	...	29°154	46°0	31°4	14°6	40°0	+ 0°1	39°3	38°4	1°6	3°1	0°8	94	46°0	25°0	0°801	7°5	mP, vN : vN : ssN, wwP	
14	...	28°771	44°8	41°0	3°8	42°7	+ 2°6	42°1	41°4	1°3	2°9	0°4	95	51°8	32°0	0°128	0°0	wwP, wwN : wP, vN : wP, vN	
15	...	29°168	41°3	37°3	4°0	40°3	+ 0°1	38°8	36°9	3°4	5°7	1°5	88	46°0	33°0	0°007	1°5	wP : mP : mP, vN	
16	...	29°617	37°3	31°1	6°2	33°9	- 6°4	32°0	28°7	5°2	7°8	2°5	81	40°9	27°6	0°000	1°5	mP : sP	
17	...	29°481	40°5	28°2	12°3	33°5	- 6°7	31°9	29°0	4°5	9°0	0°8	83	53°2	19°5	0°000	0°0	mP : mP : sP	
18	In Equator: First Quarter	29°570	40°4	24°8	15°6	33°6	- 6°4	32°1	29°4	4°2	7°4	1°4	85	58°4	17°0	0°000	0°0	vP : sP : mP, mN	
19	...	29°186	40°8	33°0	7°8	36°6	- 3°1	34°8	32°2	4°4	6°9	0°7	85	62°1	26°0	0°074	0°0	vN, mP : sP	
20	...	29°244	39°9	29°6	10°3	34°5	- 4°8	32°2	28°3	6°2	10°1	1°2	77	51°2	20°2	0°000	0°0	sP : ssP : sP	
21	...	29°429	34°1	25°3	8°8	31°0	- 8°0	30°1	27°7	3°3	5°2	0°9	86	41°7	16°6	0°000	0°0	sP : ssP	
22	...	29°430	34°1	27°6	6°5	32°0	- 6°8	30°9	28°3	3°7	3°5	1°4	86	34°1	24°7	0°000	0°0	vP : sP	
23	...	29°311	35°7	27°1	8°6	32°0	- 6°6	31°1	29°0	3°0	2°3	0°0	88	47°3	23°1	0°000	0°0	vP : vP : vP, ssN	
24	Perigee: Greatest Dec. N.	29°438	41°1	26°2	14°9	33°3	- 5°1	32°1	29°8	3°5	7°5	0°5	87	50°6	25°0	0°161	0°2	wP, wN : mP : vP, vN	
25	Full	28°812	42°9	34°5	8°4	39°4	+ 1°1	38°1	36°4	3°0	5°9	0°7	90	56°1	30°2	0°620	1°0	mP : ssN, mP : mP	
26	...	28°667	40°2	31°5	8°7	37°4	- 0°9	35°9	33°8	3°6	4°1	0°8	87	48°8	24°9	0°029	0°8	wP : mP : mP	
27	...	29°031	42°1	33°8	8°3	37°3	- 1°1	35°9	34°0	3°3	4°8	1°2	88	70°2	20°3	0°000	0°2	mP : sP : sP	
28	...	29°388	38°0	28°7	9°3	34°1	- 4°3	32°9	30°8	3°3	4°6	0°0	87	52°8	19°8	0°000	0°8	vP : wP, vN : wP, vN	
29	...	29°284	48°5	29°4	19°1	39°7	+ 1°2	38°4	36°7	3°0	5°0	1°1	90	48°5	19°8	0°186	0°5	vN, wP : mP, sN : mP	
30	...	29°142	48°5	41°5	7°0	44°9	+ 6°3	42°9	40°6	4°3	7°1	1°1	86	70°7	35°6	0°168	2°5	wwP, wwN : wwP	
31	In Equator	29°485	55°4	42°7	12°7	50°9	+ 12°3	49°1	47°2	3°7	5°8	1°1	87	69°7	37°2	0°285	4°5	...	
Means	...	29°476	44°1	34°7	9°5	40°0	+ 0°3	38°3	36°0	3°9	6°6	1°4	86°0	55°4	27°8	3°033	1°2	...	
Number of Column for Reference.	I	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 50 years' observations, 1841-1890. 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 results on December 3 and 4 for Air and Evaporation Temperatures are derived from eye-observations on account of failure of the photographic registers.

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

* Rainfall (Column 16). The amount inserted for December 5 is principally derived from hoar frost.

The mean reading of the Barometer for the month was 29°476, being o°in. 315 lower than the average for the 50 years, 1841-1890.

TEMPERATURE OF THE AIR.

The highest in the month was 55°4 on December 30; the lowest in the month was 24°8 on December 17; and the range was 30°6.

The mean of all the highest daily readings in the month was 44°1, being o°1 higher than the average for the 50 years, 1841-1890.

The mean of all the lowest daily readings in the month was 34°7, being o°1 lower than the average for the 50 years, 1841-1890.

The mean of the daily ranges was 9°5, being o°3 greater than the average for the 50 years, 1841-1890.

The mean for the month was 40°0, being o°3 higher than the average for the 50 years, 1841-1890.

MONTH and DAY, 1901.	Daily Duration of Sunshine, Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.				
		OSLER'S.			ROBIN- SON'S.		A.M.				P.M.		
		General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.	A.M.			P.M.			
		A.M.	P.M.	Greatest.	Least.		Mean of 24 Hourly Measures,						
Dec. 1	hours. hours.												
2	0.0	8.1	SW	WSW : SW	3.0	0.0	0.33	349	p-cl, d : p-cl	: 8, cu, cl-cu, th-cl	10	: p-cl	
3	2.0	8.1	SW	SW	2.0	0.0	0.19	313	p-cl : li-cl	: 2, cu, th-cl	3, cu, ci-cu, th-cl	: 1, th-cl, d	
4	0.0	8.1	NNW	S : SSE	0.1	0.0	0.00	101	p-cl : 10	: 10	9, cu, ci-cu, th-cl	: 0, m	
5	0.0	8.0	SSE : SE	S : SSE	2.2	0.0	0.12	278	10 : 10, f	: 10, oc-m-r, glm	10, slt-f, glm	: 10, f : p-cl	
6	4.8	8.0	SW:WNW:SSW	SSW	5.2	0.0	0.35	323	0, ho-fr : 10	: 10	10 : p-cl	: 10, oc-slt-r	
7	0.0	8.0	SSW	SSW : SW : S	6.8	0.0	1.46	568	10 : o, ho-fr	: 1, ci-s, th-cl	2, ci-s, th-cl	: p-cl	
8	0.0	7.9	SSW	SW	15.7	0.0	3.06	755	10, w : 10, slt-r	: 10, sc, w	10, sc, w	: 10, oc-slt-r, w	
9	3.1	7.9	SW : SSW	SW	9.9	0.0	1.85	617	10, shs-r, g : 10, sc, oc-slt-r, g	: 10, sc, w	10, fq-r, w : p-cl, w	: 1, th-cl, w	
10	2.3	7.9	SSW : WSW : SW	WSW : SW	6.6	0.0	0.82	461	10, shs-r, w : p-cl, w	: 7, cu, cl-cu, cl-s, oc-slt-r, w	7, cu, cl-cu, slt-sn	: 0 : o	
11	0.6	7.9	SW : WSW	WSW : SW : SSW	4.1	0.0	0.49	399	10, sn, sl : o, w		4, cu, ci-cu, th-cl, so-ha	: o, ho-fr	
12	0.0	7.9	S : SE : E	SE : SSE	6.3	0.0	0.72	335	o, ho-fr : 10, sl, r	: 10, c-r, w	6, cu, cl-cu, th-cl	: p-cl : o, ho-fr	
13	0.0	7.8	E : NE : NNE	N	3.0	0.0	0.29	311	10, p-cl : 9	: 10, r	10, sc, fq-r, glm	: 10, slt-r	
14	0.0	7.8	N : NNW	NNW	6.9	0.0	1.92	549	10 : 10	: 10, w	10, oe-slt-r, w	: 10, w	
15	2.2	7.8	NNW	NNW : SSW	4.6	0.0	0.59	297	li-cl : p-cl	: 5, ci-s, th-cl	th-cl : 10	: 10, ho-fr	
16	1.1	7.8	S : SSE : ESE	SE : ESE	0.9	0.0	0.02	174	10, slt-sn : p-cl	: 8, cu, cl-cu, th-cl, slt-sn, prh	6, cu, s, ci-cu	: o, ho-fr	
17	4.5	7.8	ESE : SSE	S	2.9	0.0	0.20	266	o, ho-fr : 2, li-cl		3, cu, ci-cu, ci-s, li-cl	: 10, oc-slt-r	
18	4.3	7.8	SSW	SSW	3.7	0.0	0.18	288	9, r, sl : 4, cu, th-cl		v, li-cl	: 2, li-cl, ho-fr	
19	3.5	7.8	SSW	SSW : N : NNW	0.5	0.0	0.01	173	o, ho-fr : o, h, m	: 4, cu, cl-cu, th-cl, slt-f	4, th-cl, slt-f	: v, f, ho-fr : 10, f, slt-sn	
20	0.0	7.8	NW : SSW	NW : WNW	0.4	0.0	0.01	156	9, ho-fr : 10, f	: 10, f, glm	10, slt-f	: 10	
21	0.0	7.8	WNW : SW : S	SSW : Variable	0.2	0.0	0.00	130	10 : 10, glm		10	: 10	
22	0.0	7.8	NE : NNE	NE : N	0.0	0.0	0.00	84	10, f : 10		10	: 10, f	
23	1.0	7.8	Variable : S : SSE	SE : SSE	7.7	0.0	0.65	293	9, f : f	: o, slt-f, ho-fr	p-cl, so-ha : 10	: ro, oc-shs, sn, w	
24	0.5	7.8	S	S : NNE : NW	3.3	0.0	0.28	306	p-cl, ho-fr : 5		10, fq-slt-r : 10, c-r	: 10, fq-r	
25	1.0	7.8	SW : SSW : S	SSW	5.0	0.0	0.68	409	v, fq-shs : 10, fq-r, slt-f		p-cl : p-cl	: li-cl, ho-fr	
26	3.0	7.8	SW : SSW	SW : SSW	2.7	0.0	0.21	322	li-cl, ho-fr : 3, cu, th-cl		p-cl : o	: li-cl, ho-fr	
27	0.6	7.8	SSW	SW : SSW : SSE	0.4	0.0	0.00	205	li-cl, ho-fr : p-cl	: 8, cu, cl-cu, th-cl	p-cl : o, slt-f	: o, ho-fr	
28	0.0	7.8	SE	SE : SSE	6.0	0.0	0.77	384	p-cl : 10, fq-slt-r		10, sc, fq-slt-r, w	: 10, sc, r, w	
29	2.5	7.8	SW : SSW	SSW : SW	8.8	0.0	0.77	365	10, r, st-w : p-cl	: 4, cu, cl-cu, th-cl, so-ha	10, fq-r	: p-cl	
30	0.0	7.8	S : SSE : SSW	SW : SSW	14.1	0.0	2.16	622	p-cl : 10, hy-shs, w	: 10, sc, fq-slt-r, w	10, sc, oc-slt-r, w	: 10, sc, oc-slt-r, st-w	
31	0.5	7.8	SW : SSW	SSW	12.8	0.0	2.09	621	10, r, w : 10, sc, fq-slt-r		10, sc, w	: 10, sc, oc-slt-r, w	
Means	I.2	7.9	...	...	...	...	0.65	344				
Number of Column for Reference.	19	20	21	22	23	24	25	26	27			28	

The mean Temperature of Evaporation for the month was $38^{\circ}3$, being the same as the mean Temperature of the Dew Point for the month was $36^{\circ}0$, being $0^{\circ}5$ lower than the mean Degree of Humidity for the month was $86^{\circ}0$, being $2^{\circ}5$ less than the mean Elastic Force of Vapour for the month was 0.112 , being 0.004 less than the mean Weight of Vapour in a Cubic Foot of Air for the month was 2.055 , being the same as the mean Weight of a Cubic Foot of Air for the month was 547 grains, being 6 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 0.154. The maximum daily amount of Sunshine was 4.8 hours on December 6. The highest reading of the Solar Radiation Thermometer was $73^{\circ}8$ on December 2; and the lowest reading of the Terrestrial Radiation Thermometer was $16^{\circ}6$ on December 20. The mean daily distribution of Ozone for the 12 hours ending 9^h was 0.8; for the 6 hours ending 15^h was 0.3; and for the 6 hours ending 21^h was 0.1.

The Proportions of Wind referred to the cardinal points were N. 5, E. 3, S. 15, and W. 8.

The Greatest Pressure of the Wind in the month was 15.7 lbs. on the square foot on December 8. The mean daily Horizontal Movement of the Air for the month was 344 miles; the greatest daily value was 755 miles on December 8; and the least daily value was 84 miles on December 22.

Rain fell on 15 days in the month, amounting to $3^{in}033$, as measured by gauge No. 6 partly sunk below the ground; being $1^{in}263$ greater than the average fall for the 50 years, 1841-1890.

} the average for the 50 years, 1841-1890.

HIGHEST and LOWEST READINGS of the BAROMETER, reduced to 32° Fahrenheit, as extracted from the PHOTOGRAPHIC RECORDS.

MAXIMA.		MINIMA.		MAXIMA.		MINIMA.	
Greenwich Civil Time, 1901.	Reading.	Greenwich Civil Time, 1901.	Reading.	Greenwich Civil Time, 1901.	Reading.	Greenwich Civil Time, 1901.	Reading.
January	d h m	in.	d h m	in.	April	d h m	in.
	5. 10. 10	30°314	January	9. 15. 20	29°638	9. 10. 30	29°560
	13. 19. 0	30°330		16. 12. 20	29°657	10. 23. 10	29°420
	17. 21. 0	29°969		19. 17. 55	29°257	12. 22. 45	29°852
	23. 10. 10	30°464		25. 1. 0	29°833	14. 0. 5	29°706
	25. 10. 0	30°006		27. 16. 20	29°081	15. 9. 40	29°317
	28. 4. 55	29°412		28. 19. 30	29°224	18. 8. 10	30°129
	29. 20. 55	29°366		30. 15. 40	29°195	24. 7. 0	29°850
February	d h m	in.	d h m	in.	April	d h m	in.
	1. 11. 35	29°633	February	2. 7. 0	29°338	10. 13. 5	29°217
	2. 22. 10	29°463		5. 2. 0	29°019	11. 16. 35	29°247
	10. 12. 0	30°359		13. 5. 20	30°047	13. 16. 50	29°594
	14. 7. 30	30°367		14. 16. 45	30°271	15. 2. 50	29°231
	15. 18. 35	30°440		17. 5. 20	30°012	15. 17. 5	29°253
	18. 11. 30	30°247		19. 17. 5	30°039	22. 4. 30	29°674
	20. 23. 10	30°163		27. 7. 30	29°010	27. 4. 45	29°690
March	d h m	in.	d h m	in.	April	d h m	in.
	2. 4. 20	29°177	March	1. 9. 0	28°946	10. 16. 10	29°677
	4. 4. 45	29°663		2. 21. 0	28°963	11. 1. 15	30°191
	4. 20. 0	29°696		4. 12. 5	29°582	12. 22. 20	30°262
	5. 21. 25	29°687		5. 13. 45	29°347	18. 9. 20	30°095
	9. 21. 20	30°152		7. 16. 25	29°040	21. 9. 15	30°221
	13. 9. 5	29°934		11. 15. 20	29°670	23. 23. 30	30°215
	17. 0. 0	29°650		16. 6. 0	29°540	28. 10. 10	29°798
April	d h m	in.	d h m	in.	May	d h m	in.
	2. 7. 30	29°893	April	3. 7. 50	29°416	3. 9. 20	29°110
	3. 17. 30	29°664		4. 0. 0	29°400	12. 22. 20	29°979
	5. 0. 5	30°040		6. 17. 20	29°480	18. 15. 55	29°989
	7. 12. 5	29°561		8. 3. 0	29°372	19. 15. 55	30°129
	8. 13. 20	29°484		8. 22. 55	29°356	22. 17. 35	29°707
	d h m	in.	d h m	in.	June	d h m	in.
	3. 0. 40	30°146	May	3. 9. 20	30°191	26. 17. 45	29°488
July	d h m	in.	d h m	in.	June	d h m	in.
	7. 10. 15	30°095	June	7. 6. 50	30°166	9. 17. 10	29°662
	13. 9. 10	29°959		11. 21. 15	29°855	14. 2. 20	29°397
	17. 9. 30	30°114		16. 22. 20	29°891	18. 2. 20	29°776
	22. 12. 35	29°701		19. 7. 40	30°060	23. 3. 40	29°585
	27. 15. 25	29°491		25. 21. 35	30°258	July	d h m
	30. 15. 20	28°986		28. 10. 15	30°095	2. 9. 55	29°449
	d h m	in.	d h m	in.		9. 16. 35	29°854
August	d h m	in.	d h m	in.		14. 19. 45	29°814
	3. 0. 40	30°146	July	7. 10. 15	30°095	21. 18. 30	29°610
	5. 11. 0	29°915		13. 9. 10	29°959	24. 16. 5	29°329
	8. 23. 10	29°903		17. 9. 30	30°114	August	d h m
	11. 7. 45	29°800		22. 12. 35	29°701	1. 17. 5	29°903
	13. 21. 20	29°956		27. 15. 25	29°491	4. 14. 20	29°806
	d h m	in.	d h m	in.		6. 15. 20	29°557
	15. 3. 55	29°643		30. 23. 30	30°096	10. 10. 30	29°467

HIGHEST and LOWEST READINGS of the BAROMETER, reduced to 32° Fahrenheit, as extracted from the PHOTOGRAPHIC RECORDS—*concluded*.

MAXIMA.			MINIMA.			MAXIMA.			MINIMA.		
Greenwich Civil Time, 1901.	Reading.	Greenwich Civil Time, 1901.	Reading.	Greenwich Civil Time, 1901.	Reading.	Greenwich Civil Time, 1901.	Reading.	Greenwich Civil Time, 1901.	Reading.	Greenwich Civil Time, 1901.	Reading.
August	d h m	in.	d h m	in.	October	d h m	in.	October	d h m	in.	
	17. 7. 0	30°057	August	18. 15. 35		24. 1. 20	30°026		21. 14. 15	29°570	
	20. 9. 20	30°252	26. 12. 55	29°269		27. 8. 50	30°219		24. 18. 15	29°812	
	27. 11. 30	29°656	27. 22. 20	29°565		November	2. 10. 25	30°235	29. 5. 55	29°827	
September	29. 21. 0	29°952	31. 15. 0	29°814		5. 10. 30	30°289	November	4. 15. 30	30°168	
	1. 23. 45	29°990	September	5. 15. 40	29°667	17. 10. 45	30°272		13. 23. 0	28°853	
	7. 9. 45	29°799	9. 3. 30	29°706		25. 9. 55	30°470		21. 16. 20	29°607	
	11. 6. 20	29°881	14. 15. 45	29°570		29. 9. 50	30°343		28. 5. 45	30°108	
	15. 23. 0	29°693	17. 14. 10	29°184	December	4. 10. 20	30°265	December	3. 4. 10	30°065	
	18. 20. 35	29°940	21. 13. 45	29°293		6. 10. 20	30°082		5. 22. 0	29°869	
	22. 11. 0	29°430	23. 4. 50	29°330		10. 12. 0	29°599		9. 13. 40	29°394	
	27. 8. 35	30°146	October	2. 4. 55		11. 21. 55	29°614		11. 3. 40	29°409	
October	3. 9. 30	29°890	4. 4. 20	29°790		15. 10. 45	29°707		13. 6. 20	28°708	
	4. 21. 40	29°880	6. 12. 35	28°912		17. 9. 45	29°677		16. 5. 50	29°375	
	8. 1. 15	29°552	9. 2. 35	29°239		20. 21. 20	29°468		18. 15. 0	29°118	
	10. 9. 5	30°053	12. 16. 0	29°910		23. 10. 0	29°586		22. 6. 0	29°243	
	13. 9. 0	29°984	16. 22. 20	29°275		27. 21. 25	29°526		24. 22. 55	28°472	
	17. 21. 5	29°365	18. 15. 45	29°157		30. 3. 5	29°464		29. 1. 40	28°845	
	20. 9. 35	29°722				31. 10. 40	29°796		30. 6. 40	29°383	

The readings in the above table are accurate, but the times are occasionally liable to uncertainty, as the barometer will sometimes remain at its extreme reading without sensible change for a considerable interval of time. In such cases the time given is the middle of the stationary period.

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

The height of the barometer cistern above mean sea level is 159 feet: no correction has been applied to the readings to reduce to sea level.

HIGHEST and LOWEST READINGS of the BAROMETER in each Month for the YEAR 1901.
 [Extracted from the preceding Table.]

MONTH, 1901.	Readings of the Barometer.		Range.
	Highest.	Lowest.	
January	30·464	29·081	1·383
February	30·440	29·010	1·430
March	30·317	28·946	1·371
April	30·129	29·217	0·912
May	30·262	29·110	1·152
June	30·258	29·397	0·861
July	30·114	29·329	0·785
August	30·252	29·269	0·983
September	30·146	29·184	0·962
October	30·219	28·912	1·307
November	30·470	28·853	1·617
December	30·265	28·472	1·793

The highest reading in the year was 30ⁱⁿ.470 on November 25.

The range of reading in the year was 1ⁱⁿ.998.

The lowest reading in the year was 28ⁱⁿ.472 on December 24.

MONTHLY RESULTS of METEOROLOGICAL ELEMENTS for the YEAR 1901.

MONTH, 1901.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR.									Mean Temperature of Evaporation.	Mean Tempera- ture 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 50 Years.									
January	in. 29·866	54·1	21·0	33·1	43·2	33·5	9·7	38·8	+ 0·3	37·3	35·1	86·7						
February....	29·882	52·3	20·4	31·9	40·1	31·2	9·0	36·0	- 3·5	34·1	30·6	80·7						
March	29·599	54·1	24·2	29·9	45·0	33·8	11·2	39·3	- 2·4	37·2	34·1	81·8						
April.....	29·676	76·6	30·3	46·3	58·0	39·3	18·7	48·5	+ 1·4	44·2	39·6	72·5						
May	29·908	83·2	35·3	47·9	63·7	43·6	20·1	53·1	0·0	48·7	44·5	73·3						
June.....	29·879	79·7	42·7	37·0	69·3	49·3	20·0	58·6	- 0·8	53·2	48·4	69·3						
July	29·824	87·9	46·2	41·7	76·3	54·1	22·2	64·8	+ 2·3	59·7	55·6	73·1						
August	29·876	84·2	44·5	39·7	73·7	52·9	20·8	62·5	+ 0·8	57·2	52·8	71·1						
September...	29·747	76·9	39·6	37·3	67·2	50·0	17·1	58·0	+ 0·9	54·5	51·2	78·3						
October.....	29·752	75·3	29·9	45·4	58·1	43·1	15·0	50·5	+ 0·4	48·1	45·6	84·2						
November...	29·986	54·8	20·6	34·2	46·6	35·9	10·7	41·4	- 1·8	39·3	36·5	83·2						
December....	29·476	55·4	24·8	30·6	44·1	34·7	9·5	40·0	+ 0·3	38·3	36·0	86·0						
Means	29·789	Highest 87·9	Lowest 20·4	Annual Range 67·5	57·1	41·8	15·3	49·3	- 0·2	46·0	42·5	78·3						
MONTH, 1901.	Mean Elastic Force of Vapour.	Mean Weight of Vapour in a Cubic Foot of Air.	Mean Weight of a Cubic Foot of Ozone.	Mean Amount of Cloud. (0-10.)	RAIN.		WIND.								From Robin- son's Anemo- meter.			
					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 Hours of Prevalence of each Wind referred to different Points of Azimuth.											
N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Number of Calm or nearly Calm Hours.	Mean Daily Pressure on the Square Foot.	Mean Daily Horizontal Movement of the Air.								
January	in. 0·204	grs. 2·4	grs. 555	0·4	7·7	11	in. 0·762	h 30	h 46	h 128	h 97	h 90	h 151	h 146	h 13	h 43	lbs. 0·55	miles. 308
February....	0·171	2·0	559	0·1	8·1	11	0·865	182	85	47	16	59	133	80	59	11	0·20	259
March	0·196	2·3	550	0·5	8·2	16	2·170	137	207	67	8	51	152	73	34	15	0·86	389
April.....	0·243	2·8	541	0·8	5·6	13	1·807	88	36	73	88	108	213	65	25	24	0·65	330
May	0·294	3·3	540	0·3	4·9	5	1·793	140	200	132	21	54	118	32	11	36	0·22	237
June.....	0·340	3·8	533	0·5	5·9	9	1·491	116	56	123	22	45	172	115	59	12	0·37	280
July	0·443	4·9	526	0·5	5·3	8	1·724	72	92	167	77	73	108	78	15	62	0·08	175
August	0·400	4·4	529	0·9	5·5	10	2·033	48	73	103	55	78	186	137	63	1	0·29	252
September...	0·377	4·2	531	0·9	6·5	6	1·351	92	75	123	134	140	53	29	35	39	0·15	221
October.....	0·306	3·5	540	0·6	6·7	11	2·597	53	80	65	61	170	173	43	21	78	0·39	244
November...	0·216	2·5	555	0·6	6·3	8	0·667	97	40	36	7	152	210	33	101	44	0·53	293
December....	0·212	2·5	547	1·2	6·7	15	3·033	64	17	22	80	210	245	39	55	12	0·65	344
Sums.....	...	...	...	...	...	123	20·293	1119	1007	1086	666	1230	1914	870	491	377	...	...
Means	0·283	3·2	542	0·6	6·4	...	...	...	...	...	...	...	...	...	...	0·41	278	

The greatest recorded pressure of the wind on the square foot in the year was 34·4 lbs. on January 27.
The greatest recorded daily horizontal movement of the air in the year was 973 miles on January 27.
The least recorded daily horizontal movement of the air in the year was 51 miles on November 5.

MONTHLY MEAN READING of the BAROMETER at every HOUR of the DAY, as deduced from the PHOTOGRAPHIC RECORDS.

Hour, Greenwich Civil Time.	1901.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1 ^h	29.878	29.894	29.623	29.674	29.921	29.882	29.829	29.889	29.751	29.760	29.974	29.479	29.796
2	29.878	29.889	29.621	29.671	29.919	29.880	29.826	29.884	29.748	29.759	29.968	29.474	29.793
3	29.880	29.886	29.614	29.666	29.911	29.874	29.821	29.881	29.745	29.754	29.967	29.476	29.790
4	29.880	29.877	29.605	29.665	29.906	29.876	29.817	29.874	29.741	29.749	29.964	29.476	29.786
5	29.877	29.872	29.598	29.662	29.904	29.877	29.818	29.874	29.739	29.746	29.962	29.473	29.784
6	29.875	29.869	29.598	29.673	29.914	29.885	29.824	29.882	29.745	29.750	29.965	29.472	29.788
7	29.875	29.872	29.601	29.675	29.918	29.888	29.828	29.887	29.751	29.756	29.970	29.478	29.792
8	29.880	29.880	29.602	29.677	29.921	29.892	29.830	29.888	29.755	29.762	29.980	29.486	29.796
9	29.884	29.885	29.598	29.679	29.922	29.892	29.832	29.886	29.757	29.763	29.987	29.493	29.798
10	29.887	29.888	29.596	29.680	29.923	29.889	29.834	29.885	29.757	29.759	29.993	29.496	29.799
11	29.882	29.892	29.590	29.676	29.917	29.889	29.831	29.882	29.753	29.753	29.990	29.492	29.796
Noon	29.868	29.888	29.586	29.673	29.913	29.886	29.826	29.876	29.748	29.746	29.982	29.481	29.789
13 ^h	29.854	29.880	29.578	29.672	29.908	29.879	29.822	29.871	29.743	29.737	29.975	29.473	29.783
14	29.847	29.873	29.574	29.667	29.902	29.876	29.819	29.865	29.738	29.734	29.966	29.469	29.777
15	29.844	29.871	29.572	29.664	29.898	29.870	29.814	29.859	29.733	29.733	29.966	29.470	29.775
16	29.843	29.871	29.573	29.665	29.892	29.868	29.809	29.857	29.732	29.733	29.966	29.470	29.773
17	29.845	29.873	29.581	29.668	29.889	29.863	29.808	29.855	29.735	29.739	29.970	29.471	29.775
18	29.847	29.881	29.592	29.672	29.891	29.863	29.808	29.857	29.740	29.749	29.975	29.471	29.779
19	29.850	29.887	29.603	29.682	29.896	29.862	29.814	29.864	29.747	29.755	29.979	29.472	29.784
20	29.854	29.890	29.611	29.694	29.904	29.869	29.822	29.873	29.754	29.759	29.982	29.471	29.790
21	29.858	29.894	29.616	29.700	29.913	29.881	29.835	29.881	29.757	29.763	29.984	29.472	29.796
22	29.861	29.893	29.618	29.701	29.906	29.882	29.840	29.885	29.758	29.766	29.984	29.468	29.797
23	29.865	29.891	29.619	29.700	29.907	29.882	29.842	29.885	29.757	29.767	29.983	29.464	29.797
24	29.866	29.887	29.620	29.699	29.914	29.881	29.839	29.884	29.753	29.767	29.981	29.459	29.796
Means { 0 ^h -23 ^h .	29.866	29.882	29.599	29.676	29.908	29.879	29.824	29.876	29.747	29.752	29.975	29.476	29.788
Means { 1 ^h -24 ^h .	29.866	29.882	29.599	29.677	29.908	29.879	29.825	29.876	29.747	29.752	29.975	29.475	29.788
Number of Days employed. }	31	28	31	30	31	30	31	31	30	31	29	31	...

MONTHLY MEAN TEMPERATURE of the AIR at every HOUR of the DAY, as deduced from the PHOTOGRAPHIC RECORDS.

Hour, Greenwich Civil Time.	1901.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight	38°	34°	37°	44°	47°	53°	58°	58°	54°	47°	39°	39°	46°
1 ^h	37.8	34.2	37.2	43.6	46.6	52.7	58.2	57.4	54.0	47.2	39.1	39.0	45.6
2	37.7	34.2	37.0	43.3	46.2	52.1	57.6	56.8	53.8	46.6	38.9	38.7	45.2
3	37.5	34.2	36.8	43.0	45.7	51.4	56.9	56.0	53.6	46.3	38.7	38.3	44.9
4	37.1	34.3	36.5	42.5	45.5	51.1	56.3	55.3	53.7	46.1	38.5	38.2	44.6
5	37.0	34.3	36.6	42.3	45.6	51.4	56.4	54.9	53.7	45.8	38.2	38.2	44.5
6	36.9	34.3	36.5	42.9	46.7	52.6	57.8	55.6	53.7	45.7	38.2	38.0	44.9
7	36.8	34.1	36.9	44.8	48.9	55.0	60.4	57.7	54.7	46.1	38.0	38.2	46.0
8	36.7	34.2	37.8	47.6	51.9	57.6	64.1	61.1	56.9	47.3	38.6	38.2	47.7
9	37.1	34.9	38.9	50.1	54.7	60.0	66.9	64.3	58.6	49.4	39.2	38.6	49.4
10	38.5	36.1	40.1	51.9	57.3	62.3	69.2	66.6	60.7	51.5	40.3	39.6	51.2
11	39.8	37.2	41.2	53.1	58.9	64.2	71.0	68.1	62.7	54.2	41.7	40.7	52.7
Noon	40.9	38.2	42.2	54.1	60.5	65.4	72.4	69.4	64.1	56.0	43.0	42.0	54.0
13 ^h	41.6	39.0	43.3	55.2	61.1	66.3	73.1	70.5	65.3	56.6	44.1	42.6	54.9
14	41.8	39.0	43.4	55.6	61.4	66.6	73.1	71.0	65.7	56.9	44.9	42.7	55.2
15	41.6	38.9	43.1	55.4	61.2	66.5	73.4	70.6	64.9	56.3	44.7	42.1	54.9
16	41.0	38.4	42.6	54.6	60.4	65.5	73.1	69.4	63.0	55.1	44.0	41.4	54.0
17	40.3	37.8	41.7	53.4	59.5	64.2	71.5	68.1	61.5	53.4	43.3	41.0	53.0
18	39.7	37.3	40.6	51.9	57.7	62.6	69.6	66.2	59.7	51.8	42.4	40.6	51.7
19	39.3	36.7	39.7	49.7	55.3	60.9	67.2	64.1	57.7	50.8	41.8	40.3	50.3
20	39.0	36.1	39.0	47.9	52.8	58.7	64.6	62.1	56.2	49.9	41.2	40.0	49.0
21	38.6	35.7	38.7	46.6	51.2	56.7	62.2	60.4	55.1	49.0	40.6	39.8	47.9
22	38.5	35.2	38.1	45.7	49.7	55.3	60.8	59.3	54.3	48.4	40.3	39.6	47.1
23	38.2	34.9	37.6	45.0	48.7	54.3	59.8	58.6	53.8	48.0	40.2	39.6	46.6
24	37.8	34.6	37.4	44.2	47.7	53.6	58.9	57.8	53.7	47.5	40.0	39.8	46.1
Means { 0 ^h -23 ^h .	38.8	36.0	39.3	48.5	53.1	58.6	64.8	62.6	58.0	50.3	40.8	39.9	49.2
Means { 1 ^h -24 ^h .	38.8	36.0	39.3	48.5	53.1	58.6	64.8	62.6	58.0	50.3	40.8	39.9	49.2
Number of Days employed. }	31	28	31	30	31	30	31	29	14	27	26	29	...

MONTHLY MEAN TEMPERATURE of EVAPORATION at every HOUR of the DAY, as deduced from the PHOTOGRAPHIC RECORDS.

Hour, Greenwich Civil Time.	1901.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight	36°·8	32°·8	35°·9	42°·1	45°·6	50°·9	57°·2	55°·8	52°·4	46°·3	37°·7	37°·7	44°·3	
1 ^h	36°·5	32°·9	36°·0	41°·8	45°·2	50°·6	56°·9	55°·3	52°·4	45°·9	37°·4	37°·7	44°·1	
2	36°·3	32°·8	35°·8	41°·5	44°·9	50°·1	56°·5	54°·8	52°·2	45°·6	37°·3	37°·3	43°·8	
3	36°·1	32°·8	35°·8	41°·2	44°·7	50°·0	55°·9	54°·1	51°·8	45°·3	36°·9	37°·1	43°·5	
4	35°·9	32°·9	35°·6	40°·9	44°·5	49°·8	55°·6	53°·6	51°·9	45°·1	36°·9	37°·1	43°·3	
5	35°·8	33°·0	35°·5	40°·8	44°·5	50°·0	55°·7	53°·1	52°·0	44°·9	36°·6	36°·9	43°·2	
6	35°·8	33°·0	35°·6	41°·0	45°·4	50°·7	56°·5	53°·7	51°·8	44°·8	36°·6	36°·8	43°·5	
7	35°·7	32°·9	35°·8	42°·1	46°·7	52°·0	57°·9	55°·0	52°·5	44°·9	36°·5	36°·8	44°·1	
8	35°·6	32°·9	36°·5	43°·6	48°·4	53°·1	59°·7	56°·9	53°·8	46°·1	36°·9	36°·8	45°·0	
9	36°·0	33°·5	37°·3	44°·8	49°·8	54°·1	61°·2	58°·3	54°·7	47°·7	37°·4	37°·2	46°·0	
10	36°·9	34°·2	37°·8	45°·7	51°·1	55°·1	62°·0	59°·0	55°·7	49°·3	38°·2	37°·9	46°·9	
11	37°·9	34°·8	38°·4	46°·5	52°·1	55°·6	62°·8	59°·6	56°·4	50°·8	39°·3	38°·9	47°·8	
Noon	38°·8	35°·4	38°·9	47°·0	52°·6	55°·9	63°·0	59°·9	56°·7	51°·6	40°·3	39°·9	48°·3	
13 ^h	39°·2	35°·9	39°·6	47°·5	52°·5	56°·4	63°·1	60°·7	57°·5	51°·9	41°·1	40°·3	48°·8	
14	39°·5	35°·9	39°·7	48°·1	52°·7	56°·4	63°·2	60°·7	57°·7	51°·9	41°·4	40°·3	49°·0	
15	39°·5	35°·9	39°·5	47°·7	52°·8	56°·4	63°·2	60°·7	57°·2	51°·4	41°·5	40°·0	48°·8	
16	39°·1	35°·7	39°·2	47°·3	52°·4	56°·2	63°·0	60°·1	56°·5	50°·9	41°·1	39°·5	48°·4	
17	38°·6	35°·2	38°·5	46°·7	52°·0	55°·6	62°·4	59°·5	55°·8	50°·3	40°·7	39°·2	47°·9	
18	38°·2	34°·9	37°·8	46°·1	51°·1	55°·0	61°·6	58°·8	55°·3	49°·3	40°·1	38°·9	47°·3	
19	37°·8	34°·7	37°·3	45°·2	50°·0	54°·2	60°·7	58°·0	54°·5	48°·6	39°·5	38°·8	46°·6	
20	37°·6	34°·3	36°·9	44°·0	48°·9	53°·2	59°·8	57°·4	53°·8	48°·1	39°·1	38°·6	46°·0	
21	37°·4	34°·0	36°·7	43°·4	47°·9	52°·4	58°·9	56°·7	53°·3	47°·4	38°·7	38°·4	45°·4	
22	37°·1	33°·7	36°·4	43°·0	47°·0	51°·9	58°·3	56°·2	52°·7	46°·8	38°·5	38°·2	45°·0	
23	36°·9	33°·4	36°·1	42°·7	46°·5	51°·4	57·6	55°·9	52°·4	46°·7	38°·3	38°·3	44°·7	
24	36°·6	33°·2	36°·0	42°·2	45°·9	51°·1	57°·3	55°·5	52°·4	46°·2	38°·3	38°·4	44°·4	
Means	{ 0 ^h -23 ^h .	37°·3	34°·1	37°·2	44°·2	48°·7	53°·2	59°·7	57°·2	54°·2	48°·0	38°·7	38°·3	45°·9
	{ 1 ^h -24 ^h .	37°·3	34°·1	37°·2	44°·2	48°·7	53°·2	59°·7	57°·2	54°·2	48°·0	38°·7	38°·3	45°·9
Number of Days employed.	}	31	28	31	30	31	30	31	29	14	27	26	29	...

MONTHLY MEAN TEMPERATURE of the DEW POINT at every HOUR of the DAY, as deduced by GLAISHER'S TABLES from the corresponding AIR and EVAPORATION TEMPERATURES.

Hour, Greenwich Civil Time.	1901.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight	35°·1	30°·3	33°·8	39°·7	43°·6	48°·5	55°·8	53°·7	50°·7	44°·8	35°·5	35°·8	42°·3	
1 ^h	34°·8	30°·7	34°·3	39°·7	43°·7	48°·5	55°·7	53°·4	50°·8	44°·5	35°·2	36°·0	42°·3	
2	34°·4	30°·4	34°·1	39°·4	43°·5	48°·1	55°·5	53°·0	50°·6	44°·5	35°·1	35°·4	42°·0	
3	34°·2	30°·4	34°·5	39°·0	43°·6	48°·6	55°·0	52°·3	50°·1	44°·2	34°·5	35°·4	41°·8	
4	34°·2	30°·5	34°·4	39°·0	43°·4	48°·5	55°·0	52°·0	50°·2	44°·0	34°·7	35°·6	41°·8	
5	34°·1	30°·8	34°·0	39°·0	43°·2	48°·6	55°·1	51°·3	50°·3	43°·9	34°·4	35°·1	41°·6	
6	34°·3	30°·8	34°·3	38°·7	44°·0	48°·8	55°·3	51°·9	50°·0	43°·8	34·4	35°·1	41°·8	
7	34°·2	30°·8	34°·3	38°·9	44°·4	49°·1	55°·7	52·6	50°·4	43°·6	34·5	34°·9	42°·0	
8	34°·1	30°·7	34°·8	39°·2	44°·9	49°·0	56°·1	53°·2	50°·9	44°·8	34°·6	34°·9	42°·3	
9	34°·5	31°·2	35°·1	39°·2	45°·1	48°·9	56·6	53°·3	51°·2	45°·9	35°·1	35°·3	42°·6	
10	34°·7	31°·4	34°·8	39°·4	45°·4	48°·9	56·4	52·9	51°·4	47·1	35·5	35·7	42°·8	
11	35°·4	31°·5	34°·9	39°·9	46·1	48°·5	56·6	52·9	51°·0	47·5	36·3	36·6	43·1	
Noon	36°·2	31°·6	34°·9	40°·0	45°·7	48°·1	55°·9	52·5	50°·6	47·4	37·1	37·3	43·1	
13	36°·2	31°·8	35°·2	40°·1	45°·0	48°·4	55°·7	53·1	51°·1	47·5	37·6	37·5	43·3	
14	36°·6	31°·8	35°·3	41°·0	45°·1	48°·2	55°·9	52·9	51°·2	47·3	37·4	37·4	43·3	
15	36·9	32°·0	35°·2	40°·4	45°·5	48·3	55·7	53·1	50·8	46·8	37·8	37·4	43·3	
16	36·7	32°·1	35°·1	40°·2	45·4	48·6	55·5	52·9	51°·0	46·9	37·7	37·1	43·3	
17	36·4	31°·6	34°·6	40°·1	45·4	48·5	55·5	52·7	50·9	47·2	37·6	36·9	43·1	
18	36·2	31°·6	34°·3	40°·2	45·1	48·5	55·4	52·8	51°·4	46·8	37·3	36·8	43·0	
19	35·9	31°·8	34°·2	40°·4	45·0	48·4	55·5	52·9	51°·6	46·3	36·6	36·9	43·0	
20	35·8	31°·6	34°·2	39·7	45·0	48·3	55·8	53·4	51°·5	46·2	36·5	36·8	42·9	
21	35·8	31°·4	34°·0	39·8	44·5	48·4	56·1	53·5	51°·6	45·6	36·3	36·6	42·8	
22	35°·2	31°·4	34°·1	39·9	44·1	48·6	56·1	53·4	51°·1	45·1	36·2	36·4	42·6	
23	35°·1	31°·0	34°·1	40°·0	44·2	48·6	55·7	53·5	51°·0	45·3	35·9	36·6	42·6	
24	35°·0	30°·9	34°·1	39·8	43·9	48·7	55·9	53·4	51°·1	44·8	36·1	36·6	42·5	
Means	{ 0 ^h -23 ^h .	35°·3	31°·2	34°·5	39·7	44·6	48·5	55·7	52·9	50·9	45·7	36·0	36·2	42·6
	{ 1 ^h -24 ^h .	35°·3	31°·2	34°·5	39·7	44·6	48·5	55·7	52·9	50·9	45·7	36·0	36·3	42·6

HUMIDITY, SUNSHINE, AND READINGS OF THERMOMETERS IN A STEVENSON'S SCREEN
AND ON THE ROOF OF THE MAGNET HOUSE,

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.	1901.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight	89	85	87	84	88	84	90	85	88	90	86	88	87	
1 ^h	89	86	89	86	90	86	91	86	89	91	86	90	88	
2	88	85	89	86	91	86	93	87	89	93	87	89	89	
3	88	85	92	86	93	90	94	88	88	93	86	90	89	
4	89	86	92	88	93	91	95	89	88	93	87	90	90	
5	89	86	91	88	92	90	95	87	88	94	87	89	90	
6	91	86	92	85	91	87	92	88	87	94	87	89	89	
7	91	87	91	80	85	81	85	83	85	92	87	88	86	
8	91	86	89	74	77	73	75	76	80	92	87	88	82	
9	90	86	87	67	70	66	70	67	76	88	86	89	79	
10	87	83	82	63	64	61	63	62	71	85	83	86	74	
11	85	80	79	61	63	57	60	58	66	78	82	86	71	
Noon	84	77	76	59	58	53	56	55	61	73	80	84	68	
1 ³ ^h	82	76	73	57	56	53	54	54	60	71	77	83	66	
1 ⁴	83	76	73	58	56	52	55	52	59	70	74	82	66	
1 ⁵	84	77	74	57	57	52	54	54	60	70	76	84	67	
1 ⁶	85	78	75	58	58	54	54	55	65	74	78	86	68	
1 ⁷	87	79	77	61	59	57	57	58	69	79	80	86	71	
1 ⁸	88	80	79	64	63	60	60	63	74	83	83	87	74	
1 ⁹	88	83	81	71	68	63	66	67	81	85	83	88	77	
20	89	84	83	74	74	69	74	73	85	87	84	89	80	
21	90	84	84	78	78	74	80	78	88	89	85	89	83	
22	88	85	86	81	82	79	85	82	89	89	86	89	85	
23	89	85	87	83	85	81	87	83	90	91	85	90	86	
24	90	86	88	84	88	83	90	85	91	91	86	89	88	
Means	{ 0 ^h -23 ^h .	88	83	84	73	75	70	74	72	78	85	83	87	79
	{ 1 ^h -24 ^h .	88	83	84	73	75	70	74	72	78	85	83	87	79

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 1901.

Month, 1901.	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.	1 ³ ^h .	1 ⁴ ^h .	1 ⁵ ^h .	1 ⁶ ^h .	1 ⁷ ^h .	1 ⁸ ^h .	1 ⁹ ^h .	20 ^h .							
January.....	h	h	h	h	h	6·8	8·2	7·0	5·2	6·2	4·5	1·1	0·1	h	41·8	259·2	0·161	18°		
February.....	...	...	...	0·5	1·9	2·6	3·9	4·3	4·4	3·9	2·6	2·5	0·7	...	...	...	27·3	277·2	0·098	26
March.....	...	...	0·1	1·5	4·0	7·7	7·7	8·7	9·1	8·4	6·5	5·1	3·4	0·1	...	...	62·3	366·0	0·170	37
April.....	...	2·7	11·9	15·7	16·2	16·8	17·6	18·8	19·2	20·5	18·2	16·5	15·8	9·4	2·0	...	201·3	413·5	0·487	48			
May.....	0·4	8·7	12·6	14·7	14·8	19·5	19·7	20·0	19·0	17·3	17·9	19·9	19·5	17·6	13·6	1·9	237·1	481·4	0·493	57			
June.....	3·6	9·8	12·1	13·9	16·1	18·3	22·0	20·9	20·6	18·8	16·0	16·0	14·2	12·7	12·3	4·6	231·9	494·5	0·469	62			
July.....	0·8	9·4	13·8	17·7	18·3	18·4	18·6	16·6	16·5	15·9	17·1	18·6	17·4	15·7	13·7	2·7	231·2	497·7	0·465	60			
August.....	0·4	5·0	11·0	15·4	19·8	18·9	19·7	20·8	20·6	18·5	18·2	17·7	18·1	16·3	7·4	0·1	227·9	450·5	0·506	52			
September....	...	...	1·5	6·9	8·6	12·1	14·4	12·1	15·4	14·2	13·0	12·1	8·9	2·5	...	...	121·7	379·0	0·321	41
October.....	...	...	...	3·4	9·1	10·9	12·8	13·7	12·3	12·6	13·7	9·8	1·9	...	...	...	100·2	330·1	0·304	30
November....	...	...	...	...	0·3	2·3	4·7	6·6	9·3	10·2	8·6	4·2	0·2	...	...	...	46·4	265·7	0·175	20
December....	...	...	...	...	...	3·5	7·7	9·9	6·5	6·3	3·6	...	...	...	...	...	37·5	244·1	0·154	16
For the Year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1566·6	4458·9	0·351	...

The hours are reckoned from *apparent* midnight.

READINGS OF DRY-BULB THERMOMETERS placed in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS, and of those mounted in a louvre-boarded shed on the ROOF of the MAGNET HOUSE at an elevation of 20 feet above the GROUND; and EXCESS of the READINGS above those of the corresponding THERMOMETERS on the ORDINARY STAND in the MAGNETIC PAVILION ENCLOSURE, in the YEAR 1901.

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

[Observations of the maximum and minimum thermometers only have been made on Sundays, Good Friday, Christmas Day, and Public Holidays.]

JANUARY.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h		Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h
d	○	○	○	○	○	○	○	○	○	○	○	○	1	39°8	35°6	36°2	38°7	38°0	39°8	○	○	○	○	○	○
1	39°9	36°1	36°4	38°7	38°1	39°9	○○	+0°1	+0°1	+0°4	+0°2	○○	1	39°8	35°6	36°2	38°7	38°0	39°8	-0°1	-0°4	-0°1	+0°4	+0°1	-0°1
2	42°0	34°2	34°7	38°9	41°6	37°6	+1°1	-0°4	-0°1	+0°2	+1°6	+0°8	2	42°0	34°0	34°3	38°7	42°0	37°6	+1°1	-0°6	-0°5	0°0	+2°0	+0°8
3	39°6	34°7	36°8	38°9	38°7	38°6	+0°4	+0°4	+0°1	-0°1	-0°1	-0°1	3	39°3	34°1	36°8	38°9	38°6	38°6	+0°1	-0°2	+0°1	-0°1	-0°2	-0°1
4	41°3	32°3	37°6	39°4	39°0	32°3	+0°6	+1°6	+0°1	-0°3	+1°1	+1°6	4	41°1	29°9	37°5	40°0	39°2	31°3	+0°4	-0°8	0°0	+0°3	+1°3	+0°6
5	36°6	23°5	25°6	30°7	35°8	33°1	+0°5	-0°6	-0°4	+0°2	-0°2	-0°3	5	35°7	23°1	25°5	30°6	35°7	32°4	-0°4	-1°0	-0°5	+0°1	-0°3	-1°0
6	33°2	28°6	...	...	...	...	+0°1	-0°3	...	...	...	...	6	32°9	28°1	...	...	...	...	-0°2	-0°8	...	...	...	...
7	29°4	25°5	28°2	27°4	27°7	27°7	-0°8	0°0	-0°2	-0°1	0°0	-0°2	7	29°5	24°9	28°2	27°5	27°8	27°6	-0°7	-0°6	-0°2	0°0	+0°1	-0°3
8	32°4	23°4	28°2	30°3	30°8	28°0	+0°3	+0°1	-0°5	-0°5	+0°2	-0°1	8	32°3	21°7	28°0	31°0	30°5	29°8	+0°2	-1°6	-0°7	+0°2	-0°1	+1°7
9	41°0	23°1	31°0	36°5	40°9	40°3	-0°3	+2°1	0°0	-0°2	-0°2	+0°7	9	41°3	22°9	30°9	36°5	40°8	40°6	0°0	+1°9	-0°1	-0°2	-0°3	+1°0
10	48°7	36°4	41°1	46°9	46°9	37°5	-0°6	-0°1	+0°6	-0°8	+0°3	-0°2	10	50°1	36°6	41°3	48°4	47°3	37°2	+0°8	+0°1	+0°8	+0°7	+0°7	-0°5
11	44°9	36°6	39°9	43°8	44°9	40°7	-0°2	-0°2	+0°5	-0°1	+0°2	+0°4	11	45°2	36°5	39°4	44°4	45°0	40°8	+0°1	-0°3	0°0	+0°5	+0°3	+0°5
12	42°0	38°0	38°6	39°1	40°2	40°3	-0°1	-0°2	-0°1	+0°2	-0°3	-0°2	12	41°4	37°7	38°5	39°1	40°2	40°3	-0°7	-0°5	-0°2	+0°2	-0°3	-0°2
13	42°2	39°4	...	...	...	...	-0°3	-0°1	...	...	...	...	13	42°2	38°8	...	...	...	...	-0°3	-0°7	...	...	...	...
14	44°9	30°5	31°6	42°2	43°6	34°5	+0°1	+1°2	+0°4	-0°2	+0°1	+0°6	14	45°5	28°1	31°3	42°9	43°2	33°1	+0°7	-1°2	+0°1	+0°5	-0°3	-0°8
15	39°0	29°3	30°4	36°6	36°6	32°0	+0°1	+1°4	+0°5	-1°5	-0°4	+0°3	15	38°7	26°7	29°5	37°1	36°2	31°1	-0°2	-1°2	-0°4	-1°0	-0°8	-0°6
16	46°2	30°4	34°9	43°0	43°3	45°9	+0°3	+1°2	-0°8	0°0	+0°3	+0°2	16	46°6	28°3	35°0	43°9	44°0	46°2	+0°7	-0°9	-0°7	+0°9	+1°0	+0°5
17	48°1	41°4	45°7	47°1	48°1	41°4	-0°1	+1°3	-0°1	+0°1	-0°1	+1°3	17	48°8	40°9	46°0	48°0	48°8	40°9	+0°6	+0°8	+0°2	+1°0	+0°6	+0°8
18	48°0	38°1	41°9	44°9	47°9	42°8	+0°1	+1°7	+0°8	+0°3	+0°2	+0°9	18	48°0	38°0	42°2	45°3	47°9	43°0	+0°1	+1°6	+1°1	+0°7	+0°2	+1°1
19	48°6	42°1	42°9	44°6	47°9	44°0	+0°4	+0°7	0°0	+0°2	+0°2	-0°1	19	48°4	41°2	43°0	44°5	47°9	44°0	+0°2	-0°2	+0°1	+0°1	+0°2	-0°1
20	48°0	37°9	...	...	...	...	+0°1	-0°2	...	...	...	...	20	47°7	36°8	...	...	...	...	-0°2	-1°3	...	...	...	...
21	52°6	46°6	48°9	51°6	51°6	50°4	+0°2	-0°2	+0°2	-0°1	-0°1	-0°2	21	52°3	47°0	49°1	51°7	51°6	50°4	-0°1	+0°2	+0°4	0°0	-0°1	-0°2
22	50°8	47°3	48°0	48°8	49°9	48°4	+0°3	-0°2	-0°1	-0°2	+0°2	-0°1	22	50°4	47°2	48°0	48°8	49°9	48°2	-0°1	-0°3	-0°1	-0°2	+0°2	-0°3
23	48°9	35°1	35°2	43°9	43°9	38°9	+0°1	+2°4	+2°3	-0°8	+0°1	+0°2	23	48°6	33°9	36°4	44°4	42°9	38°6	-0°2	+1°2	+3°5	-0°3	0°0	-0°1
24	47°2	35°7	41°7	43°5	45°5	46°9	0°0	+0°7	+0°1	0°0	-0°2	-0°3	24	46°9	34°3	41°5	43°4	45°8	46°9	-0°3	-0°7	-0°1	-0°1	+0°1	-0°3
25	47°5	37°3	39°4	45°6	46°9	43°7	+0°3	-0°2	+0°1	-0°5	+0°1	0°0	25	47°1	36°1	39°5	46°0	47°0	43°6	-0°1	-1°4	+0°2	-0°1	+0°2	-0°1
26	48°2	36°0	38°0	42°1	43°7	47°9	+0°3	-0°3	-0°2	-0°2	-0°2	0°0	26	48°2	35°0	37°9	42°1	43°8	47°8	+0°3	-1°3	-0°3	-0°2	-0°1	-0°1
27	54°1	43°4	...	...	...	...	0°0	+0°2	...	...	...	...	27	54°2	42°8	...	...	...	...	+0°1	-0°4	...	...	...	...
28	45°0	35°1	36°2	39°8	38°3	36°5	+0°9	-0°1	+0°5	+0°3	+0°3	-0°2	28	45°0	34°0	36°1	39°8	38°3	36°6	+0°9	-1°2	+0°4	+0°3	+0°3	-0°1
29	39°2	29°4	31°6	36°3	37°8	34°1	+1°0	-0°1	-0°7	+0°4	+0°5	+0°1	29	38°5	28°0	32°0	36°0	37°6	33°7	+0°3	-1°5	-0°3	+0°1	+0°3	-0°3
30	40°0	32°5	33°4	37°3	38°7	34°9	+0°5	0°0	-0°4	+0°5	-0°1	+0°1	30	39°5	31°9	33°8	37°0	38°9	35°1	0°0	-0°6	0°0	+0°2	+0°1	+0°3
31	37°3	29°9	31°1	35°9	36°4	31°9	+0°4	-0°5	-0°4	0°0	-0°1	-0°2	31	36°9	28°8	31°0	36°1	36°4	31°5	0°0	-1°6	-0°5	+0°2	-0°1	-0°6
Means	43°4	34°5	36°6	40°5	41°6	38°9	+0°2	+0°4	+0°1	-0°1	+0°1	+0°2	Means	43°4	33°6	36°6	40°8	41°7	38°8	+0°1	-0°5	+0°1	+0°2	+0°2	+0°1

READINGS of DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN and on the Roof of the MAGNET HOUSE—*continued.*

FEBRUARY.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.							Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.							Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.							Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						
	Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h		Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h			Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h		Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h	
1	39.4	29.8	31.6	35.7	38.4	32.7	+0.6	-0.2	-0.1	0.0	0.0	+1.1	d	39.4	28.8	31.6	35.7	38.4	32.2	+0.6	-1.2	-0.1	0.0	0.0	+0.6				
2	42.2	31.3	-0.6	+0.8	2	43.0	30.4	+0.2	-0.1			
3	39.5	33.4	+0.9	-0.3	3	39.1	32.9	+0.5	-0.8			
4	37.3	25.6	27.1	32.8	35.6	32.9	+0.8	+1.8	+0.2	-0.2	-0.1	+0.1	4	35.7	23.7	26.8	33.0	35.6	33.0	-0.8	-0.1	-0.1	0.0	-0.1	+0.2				
5	35.0	31.3	31.7	33.0	34.5	33.7	+0.1	+0.1	+0.5	0.0	-0.3	-0.1	5	34.8	30.4	31.1	33.0	34.6	33.7	-0.1	-0.8	-0.1	0.0	-0.2	-0.1				
6	37.7	30.9	34.9	37.7	36.9	33.9	-0.2	+0.4	-0.4	+0.4	-0.5	+0.1	6	37.4	29.6	35.0	37.0	37.0	33.8	-0.5	-0.9	-0.3	-0.3	-0.4	0.0				
7	38.7	31.1	31.9	36.5	37.1	32.9	+1.1	0.0	+0.8	+0.3	+0.2	+1.6	7	38.0	30.1	31.2	36.0	37.1	33.0	+0.4	-1.0	+0.1	-0.2	+0.2	+1.7				
8	40.3	29.1	33.9	39.0	39.6	37.1	-0.2	+1.6	-0.1	0.0	-0.1	+0.6	8	41.2	29.0	34.3	39.8	40.0	37.2	+0.7	+1.5	+0.3	+0.8	+0.3	+0.7				
9	41.6	35.8	36.9	40.1	41.0	39.6	+0.1	-0.3	-0.1	+0.4	+0.2	-0.3	9	41.7	35.2	37.0	40.1	41.0	39.6	+0.2	-0.9	0.0	+0.4	+0.2	-0.3				
10	41.1	37.0	...	...	...	...	-0.3	+0.4	...	...	...	...	10	41.1	36.2	...	...	...	...	-0.3	-0.4	...	...	...	...
11	40.0	31.5	35.9	36.3	38.1	31.8	+0.2	+0.6	+0.1	+0.2	-0.3	+0.5	11	40.0	30.2	35.8	36.7	38.0	31.8	+0.2	-0.7	0.0	+0.6	-0.4	+0.5				
12	38.0	26.0	29.0	36.6	36.8	33.4	+1.0	-1.1	-0.2	+1.6	+0.1	+0.3	12	36.9	25.9	28.9	36.6	36.5	33.1	-0.1	-1.2	-0.3	+1.6	-0.2	0.0				
13	35.0	27.8	32.7	34.3	33.9	28.1	-0.9	+0.2	-0.1	+0.1	-0.6	+0.5	13	36.1	26.9	32.7	34.4	34.2	27.2	+0.2	-0.7	-0.1	+0.2	-0.3	-0.4				
14	33.5	21.4	23.4	31.7	32.9	30.5	-0.2	+1.0	-0.4	+0.7	+0.1	-0.4	14	33.5	19.0	23.0	30.8	33.0	30.1	-0.2	-1.4	-0.8	-0.2	+0.2	-0.8				
15	35.2	25.8	29.5	34.0	33.2	26.5	+0.5	+1.4	-0.7	+0.4	+0.3	+1.8	15	34.8	23.5	29.3	33.6	33.0	25.0	+0.1	-0.9	-0.9	0.0	+0.1	+0.3				
16	41.7	25.1	31.9	39.5	38.9	40.2	-0.2	+1.8	-0.9	-0.5	-0.2	+0.3	16	41.7	23.3	32.0	40.0	38.7	40.4	-0.2	0.0	-0.8	0.0	-0.4	+0.5				
17	40.4	32.6	...	...	...	...	+0.5	+0.1	...	...	...	...	17	40.4	31.0	...	...	...	...	+0.5	-1.5	...	...	...	...
18	36.2	30.7	33.4	34.9	35.9	34.7	-0.8	-0.1	-0.3	0.0	0.0	+1.0	18	37.4	29.9	33.8	35.6	36.2	34.7	+0.4	-0.9	+0.1	+0.7	+0.3	+1.0				
19	35.5	30.4	32.3	33.0	32.7	32.8	+1.4	-0.2	-0.1	+0.2	0.0	-0.2	19	35.5	29.9	32.3	33.0	32.5	32.9	+1.4	-0.7	-0.1	+0.2	-0.2	-0.1				
20	36.1	28.3	31.7	33.7	33.2	28.7	-0.3	-0.3	-0.5	+0.7	-0.1	0.0	20	36.0	26.0	32.0	34.8	34.2	27.6	-0.4	-2.6	-0.2	+1.8	+0.9	-1.1				
21	35.3	25.5	29.9	33.9	33.8	35.3	-0.6	-0.6	-0.1	+0.1	+0.8	-0.4	21	36.4	24.9	30.3	33.7	33.8	35.7	+0.5	-1.2	+0.3	-0.1	+0.8	0.0				
22	43.3	35.2	37.7	41.2	42.2	40.8	-0.8	0.0	-0.5	-0.5	-0.5	0.0	22	44.3	35.0	37.9	41.3	42.8	40.4	+0.2	-0.2	-0.3	-0.4	+0.1	-0.4				
23	45.6	37.0	39.9	43.6	45.3	39.1	-0.1	-0.3	-0.1	-0.8	-0.2	+0.1	23	45.5	36.5	40.0	43.8	45.3	39.2	-0.2	-0.8	0.0	-0.6	-0.2	+0.2				
24	45.2	38.3	...	...	...	...	-0.2	+0.2	...	...	...	...	24	45.3	37.7	...	...	...	...	-0.1	-0.4	...	...	...	...
25	47.9	38.4	40.1	46.3	47.0	42.1	+0.2	-0.4	-0.5	-0.1	-0.3	+0.1	25	47.7	38.0	40.2	47.0	47.1	42.0	0.0	-0.8	-0.4	+0.6	-0.2	0.0				
26	44.8	39.5	42.3	43.9	43.2	43.9	-0.2	+1.0	0.0	-0.5	-0.3	+0.6	26	45.4	38.5	42.8	44.4	43.6	43.8	+0.4	0.0	+0.5	0.0	+0.1	+0.5				
27	47.7	42.8	43.7	45.6	46.8	43.9	+0.2	-0.4	-0.7	-0.2	+0.1	0.0	27	47.4	42.4	44.1	45.3	46.9	43.6	-0.1	-0.8	-0.3	-0.5	+0.2	-0.3				
28	52.9	39.7	43.0	47.3	50.6	44.1	+0.6	+0.5	-0.9	-0.1	+0.7	-0.1	28	52.5	38.9	43.8	47.0	50.6	43.6	+0.2	-0.3	-0.1	-0.4	+0.7	-0.6				
Means	40.3	31.8	34.1	37.9	38.6	35.6	+0.1	+0.3	-0.2	+0.1	0.0	+0.3	Means	40.3	30.8	34.2	37.9	38.7	35.4	+0.1	-0.7	-0.2	+0.2	+0.1	+0.1				

READINGS OF DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN and on the ROOF of the MAGNET HOUSE—*continued*.

MARCH.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h	Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h		Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h	Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h
	d	o	o	o	o	o	o	o	o	o	o	o	d	o	o	o	o	o	o	o	o	o	o	o	o
1	52.5	38.4	45.9	51.4	50.2	43.0	-0.4	+0.5	-0.4	-0.6	+0.3	-0.1	1	52.6	37.8	46.1	51.3	50.1	42.6	-0.3	-0.1	-0.2	-0.7	+0.2	-0.5
2	53.2	37.0	42.8	48.8	52.6	46.7	+0.4	+0.5	-0.1	-1.1	+0.5	-0.2	2	53.2	35.9	43.0	49.3	52.3	46.3	+0.4	-0.6	+0.1	-0.6	+0.2	-0.6
3	49.1	38.3	...	...	...	...	+0.6	0.0	...	...	...	...	3	48.6	37.1	...	...	...	...	+0.1	-1.2	...	...	...	...
4	52.9	35.7	41.6	44.2	52.8	48.8	-0.3	-0.5	-0.1	-0.3	-0.1	+0.1	4	53.0	34.4	42.0	44.6	53.0	48.7	-0.2	-1.8	+0.3	+0.1	+0.1	0.0
5	54.8	39.6	49.2	51.2	44.3	39.9	+0.7	-0.1	-0.7	-0.4	-0.1	+0.2	5	54.4	38.7	49.3	51.2	44.2	39.6	+0.3	-1.0	-0.6	-0.4	-0.2	-0.1
6	45.8	39.1	45.5	40.2	41.6	40.0	-0.2	+0.8	+0.2	-0.5	-1.2	+0.1	6	46.6	37.8	45.5	40.3	41.5	39.9	+0.6	-0.5	+0.2	-0.4	-1.3	0.0
7	48.4	39.7	40.7	46.0	45.5	42.7	-0.1	-0.6	-0.3	-0.1	+0.2	+0.4	7	48.1	39.1	40.5	46.1	45.0	42.2	-0.4	-1.2	-0.5	0.0	-0.3	-0.1
8	43.4	36.5	40.2	42.6	41.7	40.3	+0.3	0.0	+0.3	-0.4	0.0	-0.3	8	42.9	35.0	39.0	41.7	40.7	39.9	-0.2	-1.5	-0.9	-1.3	-1.0	-0.7
9	43.7	35.6	38.1	41.0	42.1	40.1	-0.5	+0.2	+0.2	-0.2	-0.5	-0.4	9	43.3	34.9	38.1	41.2	42.7	40.0	-0.9	-0.5	+0.2	0.0	+0.1	-0.5
10	42.0	31.3	...	...	...	...	-0.9	+0.8	...	...	...	...	10	44.1	30.2	...	...	...	...	+1.2	-0.3	...	...	...	...
11	44.8	30.1	31.2	41.8	44.8	43.1	+0.3	-0.1	-0.1	-0.1	+0.4	+0.4	11	44.8	28.8	31.1	41.0	43.7	42.7	+0.3	-1.4	-0.2	-0.9	-0.7	0.0
12	51.5	39.0	40.9	46.0	51.2	43.3	-0.4	-0.1	+0.1	-0.4	-0.3	+0.7	12	51.6	38.8	41.0	46.2	51.3	43.9	-0.3	-0.3	+0.2	-0.2	-0.2	+1.3
13	43.3	30.4	36.4	40.3	41.0	37.9	+0.7	+1.4	0.0	-0.5	-0.3	+0.1	13	43.9	29.9	36.2	40.7	41.1	37.7	+1.3	+0.9	-0.2	-0.1	-0.2	-0.1
14	44.7	36.0	39.3	42.9	41.1	38.6	-1.1	0.0	-0.4	-0.4	-0.1	0.0	14	45.6	35.1	39.3	43.3	41.6	38.5	-0.2	-0.9	-0.4	0.0	+0.4	-0.1
15	41.9	37.1	39.1	40.8	41.6	39.1	-0.3	-0.2	+0.1	-0.2	-0.1	0.0	15	42.5	36.6	39.4	41.2	41.9	39.0	+0.3	-0.7	+0.4	+0.2	+0.2	-0.1
16	43.2	36.7	37.9	39.0	42.7	41.6	-0.2	-0.2	-0.4	-0.3	0.0	+0.7	16	42.8	35.9	37.6	39.0	42.7	41.2	-0.6	-1.0	-0.7	-0.3	0.0	+0.3
17	47.7	35.9	...	...	...	...	-1.2	+0.1	...	...	...	...	17	50.7	34.9	...	...	...	...	+1.8	-0.9	...	...	...	...
18	41.5	36.0	38.8	40.6	40.8	36.9	+0.3	+0.2	+0.2	-0.2	+0.1	0.0	18	41.3	35.2	38.9	41.0	40.9	36.8	+0.1	-0.6	+0.3	+0.2	+0.2	-0.1
19	42.7	34.4	37.8	40.3	38.6	34.9	-0.7	-0.1	-0.2	-0.1	+0.2	+0.2	19	42.4	33.2	37.4	40.0	38.2	33.9	-1.0	-1.3	-0.6	-0.4	-0.2	-0.8
20	40.2	34.1	37.8	38.2	39.2	37.9	+0.2	-0.1	+0.1	+0.2	-0.3	-0.3	20	39.9	33.0	36.9	37.1	38.1	37.9	-0.1	-1.2	-0.8	-0.9	-1.4	-0.3
21	41.6	35.9	37.9	41.6	40.1	36.5	-0.6	-0.1	-0.3	-0.2	+0.1	-0.2	21	42.6	34.8	38.0	42.2	40.8	36.3	+0.4	-1.2	-0.2	+0.4	+0.8	-0.4
22	42.5	31.4	36.9	39.6	41.5	37.9	-1.4	+0.1	-0.5	0.0	-1.2	0.0	22	44.2	30.1	37.3	40.0	42.3	37.8	+0.3	-1.2	-0.1	+0.4	-0.4	-0.1
23	41.3	35.6	38.1	39.9	41.3	38.1	-0.8	-1.2	-0.4	-0.1	-0.1	+0.1	23	41.6	35.1	38.1	40.0	41.2	38.0	-0.5	-1.7	-0.4	0.0	-0.2	0.0
24	40.8	31.8	...	...	...	...	0.0	+1.2	...	...	...	...	24	41.9	29.1	...	...	...	...	+1.1	-1.5	...	...	...	...
25	37.7	30.8	34.4	32.1	36.2	31.1	-0.8	+0.1	-0.1	+0.4	-0.4	+0.3	25	38.2	29.9	34.1	32.0	36.6	30.5	-0.3	-0.8	-0.4	+0.3	0.0	-0.3
26	38.0	26.4	32.2	36.0	38.0	30.9	-0.6	0.0	+0.5	+0.4	+0.4	+0.2	26	38.3	25.4	31.1	35.2	38.3	30.0	-0.3	-1.0	-0.6	-0.4	+0.7	-0.7
27	39.3	26.7	31.8	35.9	37.1	30.6	+0.1	+0.3	+0.2	-0.7	+0.5	+0.8	27	39.2	25.2	31.6	36.5	36.6	29.9	0.0	-1.2	0.0	-0.1	0.0	+0.1
28	39.0	25.9	31.5	34.6	36.9	31.8	-0.7	+0.4	-0.5	+0.1	+0.2	-0.2	28	38.8	24.2	31.7	34.0	36.4	31.4	-0.9	-1.3	-0.3	-0.5	-0.3	-0.6
29	43.8	24.6	33.6	40.0	40.8	37.9	+0.6	+0.4	-0.1	+0.1	+0.1	+0.3	29	43.5	23.2	33.6	40.0	41.3	38.0	+0.3	-1.0	-0.1	+0.1	+0.6	+0.4
30	48.2	37.5	41.0	44.6	46.6	45.0	+0.7	+0.4	0.0	-0.4	-0.1	+0.4	30	47.5	35.7	41.3	44.8	46.9	44.9	0.0	-1.4	+0.3	-0.2	+0.2	+0.3
31	50.3	42.4	...	...	...	...	-0.7	-0.3	...	...	...	...	31	50.6	42.1	...	...	...	...	-0.4	-0.6	...	...	...	...
Means	44.8	34.5	38.5	41.5	42.7	39.0	-0.2	+0.1	-0.1	-0.2	-0.1	+0.1	Means	45.1	33.5	38.4	41.5	42.7	38.8	+0.1	-0.9	-0.2	-0.2	-0.1	-0.1

READINGS OF DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN and on the ROOF of the MAGNET HOUSE—*continued.*

APRIL.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.							Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.							Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.							Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						
	Maxi-mum.	Mini-mum.	9 ^h	Noon.	15 ^h	21 ^h		Maxi-mum.	Mini-mum.	9 ^h	Noon.	15 ^h	21 ^h			Maxi-mum.	Mini-mum.	9 ^h	Noon.	15 ^h	21 ^h		Maxi-mum.	Mini-mum.	9 ^h	Noon.	15 ^h	21 ^h	
d 1	0	0	0	c	0	0	+0'2	-0'1	+0'1	+1'3	+0'6	-0'4	d 1	52'4	37'3	44'0	51'0	49'7	41'6	-0'1	-1'2	+0'2	-0'4	+0'1	-0'7				
2	54'2	33'0	45'6	52'3	52'9	52'7	-0'5	+2'7	-1'3	-1'0	-0'8	0'0	2	55'0	31'7	46'3	52'9	53'6	52'8	+0'3	+1'4	-0'6	-0'4	-0'1	+0'1				
3	57'5	44'1	51'9	54'3	54'6	44'4	-0'5	-0'5	0'0	+0'2	0'0	-0'2	3	57'7	43'7	51'9	54'5	54'7	44'4	-0'3	-0'9	0'0	+0'4	+0'1	-0'2				
4	52'7	42'0	43'7	47'8	50'5	42'1	+0'1	+0'3	-0'1	+0'3	+0'5	+0'4	4	52'5	41'0	43'7	47'0	50'0	41'7	-0'1	-0'7	-0'1	-0'5	0'0	0'0				
5	46'3	36'1	...	...	...	...	-1'3	+1'7	...	...	...	...	5	49'3	34'9	...	...	...	...	+1'7	+0'5	...	...	...	...
6	55'8	33'3	42'6	47'8	55'0	50'8	-0'3	+2'6	+0'1	-0'5	+0'2	+0'1	6	56'9	31'1	42'8	48'3	55'3	50'7	+0'8	+0'4	+0'3	0'0	+0'5	0'0				
7	60'9	49'0	...	...	...	...	+0'3	-0'3	...	...	...	...	7	60'8	49'2	...	...	...	...	+0'2	-0'1	...	...	...	...
8	56'4	45'4	...	...	...	...	-0'3	+0'2	...	...	...	...	8	56'6	44'3	...	...	...	...	-0'1	-0'9	...	...	...	...
9	57'0	42'5	50'1	55'9	54'2	44'5	-0'1	-0'2	+0'2	+0'3	-1'2	+0'5	9	57'3	41'8	50'3	56'1	54'6	44'0	+0'2	-0'9	+0'4	+0'5	-0'8	0'0				
10	52'1	39'1	46'2	46'9	49'2	45'2	-0'5	+0'8	-0'3	-0'6	+0'2	-0'1	10	51'7	37'8	46'4	47'7	49'1	44'8	-0'9	-0'5	-0'1	+0'2	+0'1	-0'5				
11	52'0	41'3	46'8	45'5	49'5	44'5	-0'9	+1'1	+0'1	-0'3	-0'3	+0'2	11	53'4	40'1	47'0	45'9	50'0	44'2	+0'5	-0'1	+0'3	+0'1	+0'2	-0'1				
12	49'5	38'6	43'0	45'9	44'4	40'0	-0'4	+0'3	+0'2	+0'3	+0'2	+0'5	12	49'3	36'8	43'0	46'0	44'0	38'8	-0'6	-1'5	+0'2	+0'4	-0'2	-0'7				
13	49'3	36'1	42'1	42'0	44'8	46'3	+0'3	+0'7	-0'2	-0'5	-0'4	+1'0	13	49'1	35'0	42'3	42'2	45'0	46'0	+0'1	-0'4	0'0	-0'3	-0'2	+0'7				
14	56'7	39'3	...	...	...	...	-0'1	+2'3	...	...	...	...	14	57'1	38'3	...	...	...	...	+0'3	+1'3	...	...	...	...
15	52'0	38'3	44'8	48'6	43'2	39'9	+0'3	+0'9	-0'1	+1'1	-0'3	0'0	15	51'3	36'8	45'0	48'0	43'1	39'3	-0'4	-0'6	+0'1	+0'5	-0'4	-0'6				
16	46'7	36'5	44'9	45'2	46'6	40'9	-0'7	0'0	0'0	-0'3	0'0	+0'3	16	46'6	35'1	44'4	44'1	46'6	39'7	-0'8	-1'4	-0'5	-1'4	0'0	-0'9				
17	53'9	36'0	44'3	50'2	53'9	46'0	+0'9	-0'2	-0'5	+1'6	+1'5	+4'7	17	53'8	34'8	43'1	48'3	53'1	45'7	+0'8	-1'4	-1'7	-0'3	+0'7	+4'4				
18	60'0	40'3	48'2	55'6	59'5	47'9	0'0	-0'5	-0'4	+0'8	+0'9	+0'9	18	60'9	39'9	49'0	55'8	59'6	47'6	+0'9	-0'9	+0'4	+1'0	+1'0	+0'6				
19	63'8	40'7	56'0	60'9	62'6	51'4	+0'4	+1'7	-0'5	-0'1	+0'2	+0'3	19	64'1	39'3	56'6	61'2	62'9	50'7	+0'7	+0'3	+0'1	+0'2	+0'5	-0'4				
20	66'3	41'5	60'8	64'7	65'2	55'1	-0'6	+0'9	+0'2	-0'4	-0'5	+0'7	20	67'1	39'5	60'9	64'0	66'0	54'1	+0'2	-1'1	+0'3	-1'1	+0'3	-0'3				
21	71'3	44'9	...	...	...	...	0'0	+1'5	...	...	...	...	21	72'2	43'3	...	...	...	...	+0'9	-0'1	...	...	...	...
22	72'8	49'3	66'1	70'4	72'1	58'8	-0'8	+2'7	+1'3	+0'4	+1'6	+3'5	22	73'7	48'2	65'2	70'1	72'9	58'2	+0'1	+1'6	+0'4	+0'1	+2'4	+2'9				
23	75'2	47'3	65'6	71'0	75'2	58'0	-1'4	+1'9	-0'8	-0'1	+1'5	+2'2	23	77'5	46'3	67'4	71'7	76'6	57'3	+0'9	+0'9	+1'0	+0'6	+2'9	+1'5				
24	68'8	47'4	61'3	68'8	64'9	51'8	-0'2	+2'9	+0'9	+2'0	+0'5	+0'4	24	70'3	45'5	61'7	68'9	65'9	51'0	+1'3	+1'0	+1'3	+2'1	+1'5	-0'4				
25	63'1	46'3	57'9	60'7	62'1	51'4	0'0	+0'3	0'0	+0'4	-0'3	+0'2	25	64'8	45'0	59'0	61'9	63'2	50'5	+1'7	-1'0	+1'1	+1'6	+0'8	-0'7				
26	55'4	41'2	53'1	54'4	53'8	41'6	-1'4	+0'2	+0'7	+0'5	+0'3	+0'3	26	56'9	40'0	53'5	55'6	54'1	41'1	+0'1	-1'0	+1'1	+1'7	+0'6	-0'2				
27	52'6	39'6	45'0	49'9	49'3	43'0	-0'3	+0'5	+0'8	+2'8	+0'3	+1'0	27	52'2	38'2	44'3	48'0	49'1	42'2	-0'7	-0'9	+0'1	+0'9	+0'1	+0'2				
28	55'4	37'2	...	...	...	...	-1'3	+0'6	...	...	...	...	28	57'7	35'2	...	...	...	...	+1'0	-1'4	...	...	...	...
29	58'0	35'5	50'9	56'2	56'8	46'1	+0'1	+2'1	+0'2	+1'4	+0'8	+1'2	29	58'2	35'7	49'7	54'1	56'4	45'0	+0'3	+2'3	-1'0	-0'7	+0'4	+0'1				
30	62'8	40'8	52'8	58'6	60'9	46'6	-2'2	+2'1	+0'7	-1'4	+1'2	+1'2	30	65'6	40'0	53'8	59'8	62'3	46'0	+0'6	+1'3	+1'7	-0'2	+2'6	+0'6				
Means	57'7	40'7	50'3	54'4	55'5	47'1	-0'4	+1'0	+0'1	+0'3	+0'3	+0'8	Means	58'4	39'5	50'5	54'2	55'7	46'5	+0'3	-0'2	+0'2	+0'2	+0'5	+0'2				

READINGS of DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN and on the ROOF of the MAGNET HOUSE—*continued*.

MAY.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.							Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.							Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.							Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.									
	Maximum.		Minimum.		9 ^h	Noon.	15 ^h	21 ^h	Maximum.		Minimum.		9 ^h	Noon.	15 ^h	21 ^h	Maximum.		Minimum.		9 ^h	Noon.	15 ^h	21 ^h	Maximum.		Minimum.		9 ^h	Noon.	15 ^h	21 ^h
d 1	63.4	38.1	55.2	62.3	56.9	47.8	-1.5	+2.8	+0.5	+0.2	+0.6	+0.3	1	65.6	36.3	55.8	62.6	58.0	47.3	+0.7	+1.0	+1.1	+0.5	+1.7	-0.2							
2	55.0	45.8	48.5	51.9	54.0	52.5	-0.2	+0.3	+0.3	-0.8	-0.3	+1.0	2	55.5	45.1	48.6	52.2	54.3	52.0	+0.3	-0.4	+0.4	-0.5	0.0	+0.5							
3	66.2	44.6	49.9	61.9	65.6	52.9	-1.7	+0.3	+0.8	-1.3	-0.1	+1.1	3	68.9	44.1	50.0	64.0	66.6	51.5	+1.0	-0.2	+0.9	+0.8	+0.9	-0.3							
4	59.5	41.0	49.4	57.1	59.3	47.0	+0.3	+1.2	+0.9	+0.5	+0.6	-0.4	4	59.3	39.6	48.9	55.7	58.8	45.2	+0.1	-0.2	+0.4	-0.9	+0.1	-2.2							
5	60.9	44.1	...	...	...	...	-0.3	+1.0	...	...	...	...	5	62.9	41.3	...	...	...	...	+1.7	-1.8	...	...	...	...			
6	51.7	41.5	45.8	49.5	51.6	48.3	-0.4	+1.3	+0.2	+0.4	-0.1	-0.1	6	51.9	40.8	45.7	50.3	51.9	48.0	-0.2	+0.6	+0.1	+1.2	+0.2	-0.4							
7	57.3	42.3	49.5	56.7	53.8	44.9	+0.5	-0.4	+0.8	+1.9	-0.7	+0.2	7	57.5	41.2	50.0	55.9	54.3	44.8	+0.7	-1.5	+1.3	+1.1	-0.2	+0.1							
8	51.1	40.1	43.9	51.1	44.9	45.0	-0.7	-0.1	-0.8	-0.2	+0.2	+0.3	8	54.1	39.7	46.0	52.8	44.9	44.6	+2.3	-0.5	+1.3	+1.5	+0.2	-0.1							
9	50.6	42.3	48.4	50.5	45.9	46.0	-0.2	+0.1	-0.4	+0.1	+0.1	+0.2	9	50.8	40.9	48.8	50.3	47.1	45.8	0.0	-1.3	0.0	-0.1	+1.3	0.0							
10	54.0	44.2	46.9	48.2	53.1	46.5	-1.1	0.0	+0.1	-1.0	+0.3	+2.2	10	54.5	43.3	46.9	49.2	54.5	45.8	-0.6	-0.9	+0.1	0.0	+1.7	+1.5							
11	58.1	35.7	54.0	57.1	56.0	52.3	-1.3	-3.6	-0.8	-0.2	0.0	+1.9	11	58.1	35.8	55.5	58.0	56.8	53.2	-1.3	-3.5	+0.7	+0.7	+0.8	+2.8							
12	61.8	42.3	...	...	...	...	-0.2	+0.8	...	...	...	...	12	62.8	42.0	...	...	...	...	+0.8	+0.5	...	...	...	...			
13	63.2	44.4	49.0	60.1	63.2	51.0	-0.3	+0.5	-0.5	-0.3	0.0	+0.1	13	65.0	42.9	49.9	60.8	65.0	50.2	+1.5	-1.0	+0.4	+0.4	+1.8	-0.7							
14	68.2	41.8	55.9	65.6	66.6	54.6	-1.3	+0.5	-0.8	-0.4	-1.1	+0.2	14	70.3	40.4	56.2	66.9	69.0	53.7	+0.8	-0.9	-0.5	+0.9	+1.3	-0.7							
15	67.2	42.4	58.2	66.0	65.5	49.2	-0.1	+0.3	+0.8	+1.5	-0.2	+0.5	15	69.4	41.2	58.0	66.2	67.2	48.3	+2.1	-0.9	+0.6	+1.7	+1.5	-0.4							
16	58.9	44.7	48.8	56.0	58.9	48.3	-1.2	+0.6	-0.5	-1.1	+0.9	0.0	16	58.0	43.6	48.0	55.1	57.6	48.8	-2.1	-0.5	-1.3	-2.0	-0.4	+0.5							
17	54.6	41.4	45.9	50.9	53.9	47.8	+0.4	+0.5	+0.2	0.0	+0.2	+0.4	17	56.6	39.8	46.0	51.0	54.3	47.5	+2.4	-1.1	+0.3	+0.1	+0.6	+0.1							
18	62.5	39.3	53.9	59.9	62.0	49.2	-0.9	+2.7	+2.9	+2.2	-0.5	+0.5	18	63.5	37.5	51.3	58.8	62.0	49.0	+0.1	+0.9	+0.3	+1.1	-0.5	+0.3							
19	69.0	45.8	...	...	...	...	-0.8	-0.1	...	...	...	...	19	69.5	45.1	...	...	...	...	-0.3	-0.8	...	...	...	...			
20	63.9	44.9	56.5	63.0	63.9	49.0	-1.3	+1.3	-1.4	+0.6	+1.1	+0.9	20	66.1	43.2	58.8	64.6	65.4	48.2	+0.9	-0.4	+0.9	+2.2	+2.6	+0.1							
21	64.4	43.3	54.6	64.4	62.8	53.8	-0.5	+0.3	-0.7	+0.6	+0.3	+0.1	21	66.0	42.1	55.4	64.8	64.9	53.0	+1.1	-0.9	+0.1	+1.0	+2.4	-0.7							
22	65.6	43.8	61.8	64.9	62.8	54.2	-0.3	-1.9	+0.5	+0.8	+0.1	+0.3	22	66.6	45.3	62.3	65.1	63.9	53.3	+0.7	-0.4	+1.0	+1.0	+1.2	-0.6							
23	64.4	45.7	61.5	64.3	64.4	52.6	-0.3	+0.6	+0.7	+0.2	0.0	+0.6	23	64.8	44.2	62.5	64.3	64.5	52.0	+0.1	-0.9	+1.7	+0.2	+0.1	0.0							
24	67.0	44.8	62.6	65.9	65.9	56.1	-0.6	+0.6	+0.3	+0.1	+0.1	+0.1	24	69.0	43.1	62.5	66.2	67.7	55.4	+1.4	-1.1	+0.2	+0.4	+1.9	-0.6							
25	69.4	47.0	62.4	68.4	65.9	52.0	0.0	+0.7	+1.3	+0.7	-0.8	+0.4	25	69.0	46.1	60.0	67.8	66.6	51.2	-0.4	-0.2	-1.1	+0.1	-0.1	-0.4							
26	59.4	48.9	...	...	...	...	-2.7	+0.6	...	...	...	...	26	62.2	47.9	...	...	...	...	+0.1	-0.4	...	...	...	...			
27	72.3	44.5	...	...	...	...	-0.7	+2.3	...	...	...	...	27	75.2	43.4	...	...	...	...	+2.2	+1.2	...	...	...	...			
28	75.0	48.2	66.9	74.2	73.8	61.0	-1.0	+2.0	+0.6	-0.1	-0.8	+1.5	28	78.0	47.2	69.0	76.7	76.1	61.0	+2.0	+1.0	+2.7	+2.4	+1.5	+1.5							
29	81.7	55.3	74.8	81.1	81.7	65.7	-1.5	+4.0	+0.5	-0.2	+1.2	+1.0	29	83.2	53.9	76.0	82.0	82.2	65.1	0.0	+2.6	+1.7	+0.7	+1.7	+0.4							
30	68.6	57.3	64.6	68.2	63.4	57.9	-0.4	+0.1	0.0	+0.3	-0.1	+0.1	30	69.5	56.9	66.3	69.5	64.0	57.8	+0.5	-0.3	+1.7	+1.6	+0.5	0.0							
31	68.0	56.8	59.9	64.4	68.0	56.8	-0.7	+0.6	+0.2	+0.6	+2.3	+0.4	31	69.6	55.3	60.3	66.0	67.1	55.9	+0.9	-0.9	+0.6	+2.2	+1.4	-0.5							
Means	63.0	44.6	55.0	60.9	60.9	51.6	-0.7	+0.6	+0.2	+0.2	+0.1	+0.5	Means	64.3	43.5	55.3	61.4	61.7	51.1	+0.6	-0.4	+0.6	+0.7	+0.9	0.0							

READINGS of DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN and on the ROOF of the MAGNET HOUSE—*continued.*

JUNE.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-	Mini-	9 ^h	Noon.	15 ^h	21 ^h	Maxi-	Mini-	9 ^h	Noon.	15 ^h	21 ^h		Maxi-	Mini-	9 ^h	Noon.	15 ^h	21 ^h	Maxi-	Mini-	9 ^h	Noon.	15 ^h	21 ^h
	mm.	mm.					mm.	mm.						mm.	mm.					mm.	mm.				
d 1	o	o	o	o	o	o	o	o	o	o	o	o	1	69.6	48.5	66.1	69.0	64.7	53.9	+0.1	+0.3	+0.6	+2.6	+1.0	-0.3
2	69.2	54.2	...	...	...	...	-0.1	+0.9	...	...	...	...	2	70.1	52.8	...	...	...	...	+0.8	-0.5	...	...	...	...
3	67.7	50.5	59.0	67.7	64.9	56.1	-0.2	+0.7	0.0	+0.5	+0.4	-0.2	3	68.9	49.3	60.2	68.9	65.8	55.0	+1.0	-0.5	+1.2	+1.7	+1.3	-1.3
4	71.0	49.3	53.8	66.9	67.3	56.9	+0.4	+0.4	+1.0	+1.5	+0.3	+0.3	4	72.7	48.3	55.1	67.0	69.1	56.1	+2.1	-0.6	+2.3	+1.6	+2.1	-0.5
5	75.2	50.1	61.9	70.8	74.9	64.9	-0.7	+1.5	-0.9	+3.1	+1.4	+2.1	5	78.5	47.8	63.5	72.0	76.9	64.5	+2.6	-0.8	+0.7	+4.3	+3.4	+1.7
6	71.1	55.8	62.8	66.6	68.8	55.9	+0.2	+0.2	+0.9	-0.1	+0.3	+0.3	6	71.7	54.3	62.1	67.6	69.0	55.0	+0.8	-1.3	+0.2	+0.9	+0.5	-0.6
7	66.9	46.7	60.6	64.5	62.2	52.2	+1.3	+1.2	+0.8	-0.2	+0.5	+0.2	7	66.3	45.0	62.0	64.5	64.1	51.8	+0.7	-0.5	+2.2	-0.2	+2.4	-0.2
8	69.6	46.3	62.0	67.9	69.4	55.9	+0.4	+0.8	+1.6	+1.5	+0.9	+1.2	8	71.5	44.8	62.2	66.0	70.0	55.0	+2.3	-0.7	+1.8	-0.4	+1.5	+0.3
9	80.4	46.8	...	...	...	...	+0.7	+2.5	...	...	...	...	9	82.2	45.2	...	...	...	...	+2.5	+0.9	...	...	...	...
10	69.8	53.1	63.0	64.5	69.8	58.2	-1.1	+0.8	+1.3	+1.1	+0.3	+0.5	10	72.6	52.4	61.3	65.9	71.3	58.0	+1.7	+0.1	-0.4	+2.5	+1.8	+0.3
11	67.4	47.7	58.6	63.4	67.0	57.6	-1.7	+0.2	0.0	-0.3	-0.6	-0.1	11	69.1	46.2	59.1	64.0	68.0	57.2	o.0	-1.3	+0.5	+0.3	+0.4	-0.5
12	64.7	49.3	55.4	62.8	59.5	49.4	-1.0	+0.6	+0.1	-1.2	-0.2	+0.4	12	65.4	47.2	55.4	63.1	59.9	47.6	-0.3	-1.5	+0.1	-0.9	+0.2	-1.4
13	58.0	44.3	52.0	55.9	55.0	52.9	-0.3	+1.6	-0.4	+0.1	-0.7	+0.1	13	58.4	42.1	53.0	56.0	55.6	52.7	+0.1	-0.6	+0.6	+0.2	-0.1	-0.1
14	64.4	48.5	54.2	63.0	64.4	52.9	-1.5	o.0	-0.9	-0.2	+1.6	+0.6	14	64.8	47.7	53.9	62.2	62.9	52.1	-1.1	-0.8	-1.2	-1.0	+0.1	-0.2
15	62.2	46.3	58.0	59.9	60.8	53.3	-1.7	+0.2	+1.2	+0.6	+0.9	+2.4	15	63.2	45.1	57.8	60.0	60.6	53.4	-0.7	-1.0	+1.0	+0.7	+0.7	+2.5
16	62.3	51.2	...	...	...	...	+0.8	+2.4	...	...	...	...	16	64.9	50.4	...	...	...	...	+3.4	+1.6	...	...	...	...
17	60.8	50.3	54.7	58.5	58.2	52.4	-1.9	+0.5	+0.7	-1.1	o.0	+0.7	17	61.2	50.0	55.1	58.9	58.5	51.6	-1.5	+0.2	+1.1	-0.7	+0.3	-0.1
18	64.0	46.0	51.1	58.2	62.5	52.6	+0.6	+0.6	-0.6	+0.7	+1.8	+1.0	18	62.6	45.9	51.9	57.3	60.2	52.1	-0.8	+0.5	+0.2	-0.2	-0.5	+0.5
19	67.8	45.1	57.1	65.0	66.2	51.5	-1.2	+2.3	+0.1	+1.6	-0.5	-0.1	19	70.2	43.1	58.8	68.1	67.8	51.2	+1.2	+0.3	+1.8	+4.7	+1.1	-0.4
20	62.5	50.4	55.0	60.1	62.3	59.9	-1.5	+0.2	-0.4	+0.2	o.0	+0.1	20	64.5	50.2	55.7	61.9	63.1	60.0	+0.5	o.0	+0.3	+2.0	+0.8	+0.2
21	78.2	58.7	66.0	74.2	77.1	61.9	-0.8	o.0	+1.0	+2.2	-0.9	+0.8	21	81.2	58.3	66.2	75.2	78.1	61.2	+2.2	-0.4	+1.2	+3.2	+0.1	+0.1
22	75.3	56.9	61.2	71.2	74.1	64.9	+0.4	+0.6	-1.2	-0.5	+0.2	+1.0	22	79.0	56.4	63.2	72.8	77.0	64.1	+4.1	+0.1	+0.8	+1.1	+3.1	+0.2
23	69.0	59.1	...	...	...	...	-0.9	-0.1	...	...	...	...	23	70.4	58.5	...	...	...	...	+0.5	-0.7	...	...	...	...
24	67.1	48.8	60.1	65.0	64.0	59.2	-1.3	+0.2	+0.4	+1.2	-0.7	+0.9	24	70.1	47.3	61.8	65.3	66.0	58.0	+1.7	-1.3	+2.1	+1.5	+1.3	-0.3
25	70.0	51.5	63.3	68.6	68.8	57.2	-1.3	+1.3	+1.2	+1.8	-0.4	+1.2	25	71.4	49.3	63.0	67.6	69.2	56.3	+0.1	-0.9	+0.9	+0.8	o.0	+0.3
26	72.7	50.4	63.3	70.4	71.6	62.5	-0.9	+2.4	+1.3	+0.9	-0.5	+0.5	26	73.3	49.1	61.9	69.0	71.0	60.8	-0.3	+1.1	-0.1	-0.5	-1.1	-1.2
27	71.0	52.0	67.1	70.2	70.2	56.7	-0.9	+0.7	+2.6	+1.5	o.0	+0.6	27	73.1	50.3	65.0	70.0	71.2	56.0	+1.2	-1.0	+0.5	+1.3	+1.0	-0.1
28	72.3	50.3	65.6	68.8	70.7	59.9	-0.3	+1.8	-1.4	+0.1	+1.4	+0.2	28	73.3	49.1	66.2	70.0	71.1	59.6	+0.7	+0.6	-0.8	+1.3	+1.8	-0.1
29	72.7	57.2	68.8	72.7	70.9	59.2	-1.9	+0.4	+0.1	+1.0	o.0	+0.2	29	73.8	56.4	69.8	71.9	71.7	58.7	-0.8	-0.4	+1.1	+0.2	+0.8	-0.3
30	69.0	53.0	...	...	...	...	-0.9	-1.0	...	...	...	...	30	70.3	53.3	...	...	...	...	+0.4	-0.7	...	...	...	...
Means	68.7	50.7	60.0	65.8	66.6	56.7	-0.6	+0.9	+0.3	+0.7	+0.3	+0.6	Means	70.1	49.5	60.4	66.2	67.3	56.1	+0.8	-0.3	+0.7	+1.1	+1.0	-0.1

READINGS OF DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN and on the ROOF of the MAGNET HOUSE—*continued*.

JULY.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-mum.	Minim-um.	9 ^h	Noon.	15 ^h	21 ^h	Maxi-mum.	Minim-um.	9 ^h	Noon.	15 ^h	21 ^h		Maxi-mum.	Minim-um.	9 ^h	Noon.	15 ^h	21 ^h	Maxi-mum.	Minim-um.	9 ^h	Noon.	15 ^h	21 ^h
	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
1	70.0	58.4	59.9	62.7	67.9	58.5	-0.3	+0.3	-0.1	-1.0	-1.0	+0.3	1	72.2	57.4	61.0	64.0	69.2	57.9	+1.9	-0.7	+1.0	+0.3	+0.3	-0.3
2	70.2	55.4	69.0	67.5	64.6	57.1	-1.1	+1.0	+0.4	-0.2	-0.4	+0.1	2	71.8	54.3	70.9	68.8	65.5	56.8	+0.5	-0.1	+2.3	+1.1	+0.5	-0.2
3	71.9	55.3	65.0	71.9	70.1	59.9	0.0	+0.3	+0.1	+1.1	-1.0	+1.2	3	72.6	54.3	66.1	71.0	70.9	59.0	+0.7	-0.7	+1.2	+0.2	-0.2	+0.3
4	78.2	57.6	62.7	74.9	76.1	65.9	-0.7	+1.4	+0.5	+2.8	-0.6	+1.2	4	79.6	56.7	62.1	72.0	76.4	68.0	+0.7	+0.5	-0.1	-0.1	-0.3	+3.3
5	81.7	59.6	70.9	78.3	80.5	70.9	-2.2	-0.3	-0.4	-0.3	-1.2	-0.8	5	84.0	58.8	71.8	79.6	82.5	70.2	+0.1	-1.1	+0.5	+1.0	+0.8	-1.5
6	71.2	60.9	68.4	69.9	68.3	61.0	-0.7	+0.7	+1.1	+0.7	+0.3	+0.6	6	70.6	60.4	68.0	70.0	68.2	60.4	-1.3	+0.2	+0.7	+0.8	+0.2	0.0
7	67.2	56.6	...	...	...	...	-0.6	+0.6	...	...	...	...	7	68.7	55.4	...	...	...	...	+0.9	-0.6	...	...	...	...
8	73.9	50.7	66.0	73.9	73.8	57.5	-0.1	+3.1	+2.3	+2.0	+0.5	+0.8	8	75.4	48.9	65.0	73.7	75.0	56.4	+1.4	+1.3	+1.3	+1.8	+1.7	-0.3
9	77.1	48.8	62.2	73.1	76.2	60.4	-0.4	+2.6	+0.9	+1.1	-0.2	+0.7	9	78.8	46.9	62.3	72.3	76.2	59.6	+1.3	+0.7	+1.0	+0.3	-0.2	-0.1
10	80.5	51.6	68.1	77.8	78.9	59.4	-0.2	+2.4	+2.1	+3.2	-1.8	+1.7	10	80.7	50.6	66.5	78.5	80.0	58.9	0.0	+1.4	+0.5	+3.9	-0.7	+1.2
11	84.5	56.7	70.0	82.9	84.0	67.8	0.0	+0.6	+2.3	+1.2	-0.2	+1.8	11	86.4	56.3	67.8	82.1	85.1	67.0	+1.9	+0.2	+0.1	+0.4	+0.9	+1.0
12	84.3	59.5	78.1	82.9	80.7	68.1	-1.8	+2.8	+0.2	0.0	+0.4	+0.2	12	87.5	58.4	79.2	86.0	81.4	67.8	+1.4	+1.7	+1.3	+3.1	+1.1	-0.1
13	69.4	58.3	64.4	67.2	68.1	61.2	-0.4	0.0	+0.5	-0.3	+0.6	+0.5	13	69.3	58.3	64.5	67.5	68.3	60.7	-0.5	0.0	+0.6	0.0	+0.8	0.0
14	69.0	53.4	...	...	...	...	-0.6	+0.7	...	...	...	...	14	70.4	52.8	...	...	...	...	+0.8	+0.1	...	...	...	...
15	76.7	54.8	65.9	73.7	75.2	66.7	-1.7	+1.9	-0.6	-2.0	-0.9	+2.8	15	78.9	53.6	67.5	74.2	77.5	66.4	+0.5	+0.7	+1.0	-1.5	+1.4	+2.5
16	82.6	54.7	74.6	77.5	82.0	65.9	-1.3	+3.0	+1.4	-0.5	-0.2	+0.4	16	84.1	54.2	76.1	78.3	82.7	65.1	+0.2	+2.5	+2.9	+0.3	+0.5	-0.4
17	82.0	54.9	74.1	78.9	79.7	70.6	-0.9	+2.6	+0.4	+0.2	+0.6	+0.9	17	83.3	53.3	75.1	80.5	80.0	70.4	+0.4	+1.0	+1.4	+1.8	+0.9	+0.7
18	84.4	61.4	76.9	83.2	84.4	67.3	+0.2	+2.7	-0.3	+0.7	+1.0	+2.0	18	85.7	60.9	78.0	82.0	84.1	66.2	+1.5	+2.2	+0.8	-0.5	+0.7	+0.9
19	87.1	57.3	76.9	84.8	82.1	66.9	-0.8	+3.3	+0.5	+0.5	-0.1	-0.9	19	88.6	55.5	74.6	85.2	82.6	67.0	+0.7	+1.5	-1.8	+0.9	+0.4	-0.8
20	83.6	59.3	79.3	83.6	81.9	66.5	-0.4	+1.0	+2.1	+0.9	+1.0	+1.0	20	84.6	58.4	77.9	83.5	83.1	65.7	+0.6	+0.1	+0.7	+0.8	+2.2	+0.2
21	86.0	59.6	...	...	...	...	-1.0	+2.0	...	...	...	...	21	86.6	58.2	...	...	...	...	-0.4	+0.6	...	...	...	...
22	75.0	61.6	65.5	68.1	70.5	64.2	-1.4	0.0	+0.2	-1.1	-1.0	+0.4	22	74.9	60.5	66.1	69.2	71.9	63.8	-1.5	-1.1	+0.8	0.0	+0.4	0.0
23	66.3	55.3	58.0	61.0	64.3	60.1	-0.8	+0.6	+0.3	-0.7	-0.4	-0.4	23	67.0	54.1	57.9	61.7	65.1	59.5	-0.1	-0.6	+0.2	0.0	+0.4	-1.0
24	68.6	54.9	61.2	59.5	64.8	59.9	+0.5	+1.4	-0.4	-0.1	-0.9	+0.2	24	69.5	53.4	61.3	59.5	65.1	59.2	+1.4	-0.1	-0.3	-0.1	-0.6	-0.5
25	69.0	54.4	63.1	68.0	59.2	57.1	-1.9	+2.2	-0.1	+0.3	-0.5	+1.4	25	71.1	53.5	65.4	69.6	59.0	57.7	+0.2	+1.3	+2.2	+1.9	-0.7	+2.0
26	63.2	53.5	61.9	61.9	61.0	57.7	-0.8	+1.7	-0.1	+0.1	-0.1	+0.4	26	64.6	52.2	63.6	63.0	61.0	57.3	+0.6	+0.4	+1.6	+1.2	-0.1	0.0
27	67.8	55.6	57.4	62.6	66.1	58.9	-0.3	+0.4	+0.9	+0.1	+0.5	+0.5	27	69.3	55.3	58.0	64.4	66.5	58.6	+1.2	+0.1	+1.5	+1.9	+0.9	+0.2
28	70.7	51.7	...	...	...	...	-0.8	+2.5	...	...	...	...	28	72.9	50.2	...	...	...	...	+1.4	+1.0	...	...	...	...
29	76.0	53.3	68.6	75.3	71.9	64.6	0.0	+2.1	+1.8	+1.1	-0.9	+1.2	29	77.7	52.3	67.2	73.5	73.1	64.2	+1.7	+1.1	+0.4	-0.7	+0.3	+0.8
30	77.1	56.2	71.9	74.5	77.1	66.8	-0.5	+2.1	-0.4	+0.3	+0.4	+2.1	30	78.5	55.3	73.5	75.3	76.6	67.2	+0.9	+1.2	+1.2	+1.1	-0.1	+2.5
31	79.1	59.7	71.0	76.7	76.8	64.8	-0.9	+2.0	+1.3	+0.9	-1.9	+1.9	31	78.5	59.4	70.2	77.4	76.8	64.5	-1.5	+1.7	+0.5	+1.6	-1.9	+1.6
Means	75.6	56.2	67.8	73.0	73.6	63.2	-0.7	+1.5	+0.6	+0.4	-0.3	+0.8	Means	76.9	55.2	68.1	73.4	74.2	62.8	+0.6	+0.5	+0.9	+0.8	+0.4	+0.4

READINGS of DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN and on the ROOF of the MAGNET HOUSE—*continued.*

AUGUST.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-mum.	Minim-um.	9 ^h	Noon.	15 ^h	21 ^h	Maxi-mum.	Minim-um.	9 ^h	Noon.	15 ^h	21 ^h		Maxi-mum.	Minim-um.	9 ^h	Noon.	15 ^h	21 ^h	Maxi-mum.	Minim-um.	9 ^h	Noon.	15 ^h	21 ^h
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
1	74.9	58.4	65.7	71.8	74.8	67.3	-0.4	+0.8	0.0	+0.1	+1.0	+1.8	1	74.8	58.1	65.7	72.4	74.6	68.1	-0.5	+0.5	0.0	+0.7	+0.8	+2.6
2	74.1	60.8	68.9	73.8	71.0	62.8	-0.4	+0.7	-0.5	+1.1	+0.1	+0.8	2	74.5	59.4	70.1	73.2	71.0	62.0	0.0	-0.7	+0.7	+0.5	+0.1	0.0
3	74.2	55.4	62.1	70.7	72.9	63.0	-1.3	+0.2	-0.8	+1.4	+0.4	+0.2	3	76.8	54.5	63.1	72.2	73.7	62.4	+1.3	-0.7	+0.2	+2.9	+1.2	-0.4
4	70.6	56.6	...	...	...	...	-1.8	+0.5	...	...	...	...	4	71.8	55.5	...	...	...	...	-0.6	-0.6	...	...	...	...
5	66.3	54.1	...	...	...	...	-1.9	+0.3	...	...	...	...	5	67.8	52.4	...	...	...	...	-0.4	-1.4	...	...	...	...
6	73.1	52.3	57.0	62.9	70.4	62.6	-1.4	+0.1	+0.2	-0.9	-0.4	+0.5	6	74.0	51.3	57.1	63.2	70.8	61.8	-0.5	-0.9	+0.3	-0.6	0.0	-0.3
7	77.0	53.7	64.8	72.2	76.4	64.7	-0.6	+0.4	+1.3	+0.4	-0.2	0.0	7	77.8	52.4	65.3	71.3	76.8	64.1	+0.2	-0.9	+1.8	-0.5	+0.2	-0.6
8	76.9	61.4	70.2	74.2	74.0	67.1	-1.6	+0.1	+1.1	+0.9	-0.7	+1.4	8	78.1	60.5	70.1	75.5	75.1	66.9	-0.4	-0.8	+1.0	+2.2	+0.4	+1.2
9	84.5	56.3	70.4	78.0	84.5	69.6	+0.3	+1.9	+0.7	+0.2	+2.2	+0.7	9	86.1	55.3	72.4	77.8	85.2	69.0	+1.9	+0.9	+2.7	0.0	+2.9	+0.1
10	80.8	62.1	72.1	75.9	72.6	62.1	-1.5	+0.8	-0.1	-0.2	-1.1	+0.1	10	81.3	61.3	73.0	76.5	72.9	61.4	-1.0	0.0	+0.8	+0.4	-0.8	-0.6
11	72.5	50.5	...	...	...	...	-0.4	+2.9	...	...	...	...	11	74.0	49.4	...	...	...	...	+1.1	+1.8	...	...	...	...
12	68.9	52.3	60.2	66.4	62.3	57.9	-0.3	+2.0	-0.6	+0.5	+0.4	0.0	12	69.0	50.3	61.0	67.0	62.7	57.3	-0.2	0.0	+0.2	+1.1	+0.8	-0.6
13	73.3	52.8	62.2	71.2	67.8	60.2	-0.6	+1.6	+0.7	+0.6	-0.2	+0.2	13	74.7	51.3	63.3	72.0	68.6	59.6	+0.8	+0.1	+1.8	+1.4	+0.6	-0.4
14	72.9	57.4	69.1	68.5	63.2	59.0	-1.4	+0.3	-1.5	-0.2	-0.9	+0.1	14	74.2	56.8	70.6	69.5	63.8	58.6	-0.1	-0.3	0.0	+0.8	-0.3	-0.3
15	71.0	57.3	65.3	64.4	68.7	63.8	-0.3	0.0	+0.4	+0.1	0.0	+0.5	15	71.9	56.6	67.2	65.0	69.0	63.1	+0.6	-0.7	+2.3	+0.7	+0.3	-0.2
16	70.3	53.4	63.3	66.9	67.8	56.8	+0.1	+0.2	+0.3	+1.0	+0.3	+0.8	16	70.5	52.2	64.1	68.6	68.5	56.9	+0.3	-1.0	+1.1	+2.7	+1.0	+0.9
17	71.3	50.9	67.4	69.7	69.1	60.0	-2.4	+2.8	+0.7	-0.2	-0.6	+1.7	17	74.3	49.3	68.6	71.6	69.7	59.0	+0.6	+1.2	+1.9	+1.7	0.0	+0.7
18	81.7	56.4	...	...	...	...	-0.2	+2.5	...	...	...	...	18	83.6	55.3	...	...	...	...	+1.7	+1.4	...	...	...	...
19	80.5	56.7	72.8	80.5	78.9	64.6	-0.4	+1.9	+1.4	+2.2	0.0	-0.1	19	82.1	55.7	71.4	82.1	81.2	64.1	+1.2	+0.9	0.0	+3.8	+2.3	-0.6
20	71.9	53.4	66.2	71.1	70.6	58.3	0.0	+0.4	+1.2	+2.4	-0.1	+0.3	20	71.9	52.4	65.4	70.4	68.8	57.8	0.0	-0.6	+0.4	+1.7	-1.9	-0.2
21	73.0	53.9	66.1	73.0	71.1	58.9	-0.1	+0.6	-0.4	+0.3	+0.1	+0.9	21	73.5	53.3	66.0	73.5	72.3	58.0	+0.4	0.0	-0.5	+0.8	+1.3	0.0
22	75.2	47.3	65.8	74.7	74.8	58.9	+0.3	+2.8	+0.4	+2.3	+1.0	+1.4	22	75.4	46.3	65.5	72.4	73.2	57.7	+0.5	+1.8	+0.1	0.0	-0.6	+0.2
23	77.6	47.0	67.1	75.5	76.6	61.9	-0.3	+1.8	+1.0	-0.3	+0.3	+2.2	23	78.3	46.2	66.0	74.0	77.1	60.2	+0.4	+1.0	-0.1	-1.8	+0.8	+0.5
24	75.2	51.4	59.9	72.4	75.2	61.9	-0.2	+2.3	+0.1	+1.2	+0.1	+0.5	24	76.6	50.6	60.3	71.9	75.5	61.0	+1.2	+1.5	+0.5	+0.7	+0.4	-0.4
25	82.0	55.1	...	...	...	...	-1.1	+0.8	...	...	...	...	25	84.3	54.3	...	...	...	...	+1.2	0.0	...	...	...	...
26	69.3	51.3	57.9	55.5	54.2	53.5	+0.5	-0.7	-0.1	+0.9	-0.5	0.0	26	68.6	50.0	58.4	53.2	54.0	53.0	-0.2	-2.0	+0.4	-1.4	-0.7	-0.5
27	63.8	47.3	55.5	59.9	60.6	53.0	-0.8	-0.1	-0.8	+0.1	-0.1	+0.4	27	63.8	46.3	55.9	59.6	58.1	52.5	-0.8	-1.1	-0.4	-0.2	-2.6	-0.1
28	62.6	47.1	54.6	60.1	62.6	53.0	-0.9	+0.1	+0.3	+1.1	+0.6	-0.2	28	63.1	45.6	54.3	59.0	63.0	52.5	-0.4	-1.4	0.0	0.0	+1.0	-0.7
29	64.2	49.3	55.7	61.1	63.9	56.5	-1.6	-0.2	-0.2	+0.2	-0.8	+1.1	29	65.7	48.3	56.3	60.3	64.4	56.1	-0.1	-1.2	+0.4	-0.6	-0.3	+0.7
30	70.1	56.0	60.1	67.2	65.1	58.7	-0.5	+0.8	-0.4	-0.4	-0.5	-0.1	30	70.6	55.4	61.0	66.4	64.7	58.1	0.0	+0.2	+0.5	-1.2	-0.9	-0.7
31	67.4	56.3	64.8	65.6	66.3	58.6	-1.4	-0.2	+1.1	-0.5	+0.8	-0.1	31	69.5	55.4	66.0	64.1	66.6	58.1	+0.7	-1.1	+2.3	-2.0	+1.1	-0.6
Means	73.1	54.0	64.0	69.4	69.8	60.6	-0.7	+0.9	+0.2	+0.6	0.0	+0.6	Means	74.1	53.0	64.5	69.3	70.1	60.0	+0.3	-0.2	+0.7	+0.5	+0.3	0.0

READINGS of DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN and on the ROOF of the MAGNET HOUSE—*continued*.

SEPTEMBER.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-	Mini-	9 ^h	Noon.	15 ^h	21 ^h	Maxi-	Mini-	9 ^h	Noon.	15 ^h	21 ^h		Maxi-	Mini-	9 ^h	Noon.	15 ^h	21 ^h	Maxi-	Mini-	9 ^h	Noon.	15 ^h	21 ^h
	mm.	mm.					mm.	mm.						mm.	mm.					mm.	mm.				
1	65.5	51.7	...	...	...	...	+0.5	+0.4	...	...	...	...	1	66.9	50.6	...	...	...	...	+1.9	-0.7	...	...	...	...
2	61.4	46.8	60.0	60.1	60.4	54.8	-0.4	+0.9	+2.0	0.0	-0.2	+0.1	2	62.7	45.2	58.7	59.4	61.6	54.3	+0.9	-0.7	+0.7	-0.7	+1.0	-0.4
3	64.0	52.9	58.0	62.7	61.9	54.9	-0.7	+0.2	-0.5	+0.1	-0.4	+0.1	3	65.3	52.4	58.2	63.1	60.7	54.3	+0.6	-0.3	-0.3	+0.5	-1.6	-0.5
4	64.6	52.0	59.7	63.9	62.4	52.6	+0.1	-0.6	-0.6	+0.2	-0.7	-0.8	4	64.5	51.9	60.1	64.2	62.8	53.0	0.0	-0.7	-0.2	+0.5	-0.3	-0.4
5	64.5	49.7	58.9	59.3	62.8	53.5	0.0	+1.5	+0.2	-0.3	-0.2	+0.4	5	64.5	48.4	59.2	57.2	61.7	52.9	0.0	+0.2	+0.5	-2.4	-1.3	-0.2
6	65.5	44.7	60.4	61.4	62.8	54.6	-0.4	+2.9	+1.7	-0.4	-0.4	+0.8	6	66.5	43.3	59.9	61.9	62.7	54.0	+0.6	+1.5	+1.2	+0.1	-0.5	+0.2
7	69.7	48.3	60.1	69.4	67.9	57.4	+0.2	+3.0	-1.6	+1.0	+0.1	+0.7	7	71.4	46.3	61.6	68.8	68.8	57.0	+1.9	+1.0	-0.1	+0.4	+1.0	+0.3
8	76.1	55.6	...	...	...	...	-0.8	+0.1	...	...	...	...	8	77.6	54.6	...	...	...	...	+0.7	-0.9	...	...	...	...
9	70.5	59.7	63.9	67.9	69.0	59.7	-1.0	+0.6	-0.3	-0.1	-0.3	+0.6	9	72.1	58.7	64.3	68.9	69.4	58.7	+0.6	-0.4	+0.1	+0.9	+0.1	-0.4
10	70.1	54.8	57.1	66.3	70.1	62.0	-1.4	+1.2	+0.5	+1.0	+0.4	+0.2	10	72.0	53.3	58.1	66.1	71.9	61.1	+0.5	-0.3	+1.5	+0.8	+2.2	-0.7
11	62.0	51.8	58.9	57.6	59.2	56.1	+0.3	+0.2	+0.4	+0.5	0.0	+0.3	11	61.4	50.3	59.2	56.6	59.2	55.7	-0.3	-1.3	+0.7	-0.5	0.0	-0.1
12	63.9	53.7	57.0	62.4	63.5	56.5	-0.2	+0.5	-0.4	-1.2	+0.2	+0.5	12	64.2	52.7	57.1	62.7	62.8	56.1	+0.1	-0.5	-0.3	-0.9	-0.5	+0.1
13	62.9	53.4	57.2	61.9	62.9	58.8	-2.2	+0.1	+0.3	-0.4	+0.2	+0.3	13	63.2	52.2	57.1	61.4	63.0	58.6	-1.9	-1.1	+0.2	-0.9	+0.3	+0.1
14	67.3	51.4	59.7	66.7	63.8	56.1	+0.2	+0.3	+1.0	+2.9	+0.1	+0.2	14	67.0	50.3	58.7	66.2	62.6	55.7	-0.1	-0.8	0.0	+2.4	-1.1	-0.2
15	64.0	52.1	...	...	...	...	-0.1	+0.5	...	...	...	...	15	63.6	51.3	...	...	...	...	-0.5	-0.3	...	...	...	...
16	65.2	42.3	53.8	61.9	64.2	53.9	-0.6	+2.7	-1.7	-0.8	-0.5	+0.8	16	66.3	41.1	55.3	62.6	64.6	53.9	+0.5	+1.5	-0.2	-0.1	-0.1	+0.8
17	66.0	53.3	59.1	62.0	65.7	61.1	-0.5	+0.3	-0.2	-0.1	-0.1	-0.1	17	66.5	53.1	59.3	62.8	65.7	61.0	0.0	+0.1	0.0	+0.6	-0.1	-0.2
18	64.7	51.2	53.7	58.1	64.7	51.5	-0.2	0.0	+0.1	-0.3	+1.4	+0.3	18	65.4	50.2	53.9	58.4	63.4	51.0	+0.5	-1.0	+0.3	0.0	+0.1	-0.2
19	62.8	45.6	56.8	60.0	60.1	54.3	-0.6	+2.0	-0.1	-0.7	-0.1	+0.6	19	63.7	45.2	57.8	60.4	60.3	54.0	+0.3	+1.6	+0.9	-0.3	+0.1	+0.3
20	67.9	53.3	62.9	65.1	65.2	58.4	+0.5	+0.4	-0.6	-0.6	-0.4	+0.2	20	68.1	52.8	63.3	66.0	64.4	58.3	+0.7	-0.1	-0.2	+0.3	-1.2	+0.1
21	65.7	58.1	60.5	63.2	63.8	58.2	-1.3	+0.6	-1.1	-0.6	+0.4	0.0	21	67.0	57.3	61.1	62.4	63.7	57.8	0.0	-0.2	-0.5	-1.4	+0.3	-0.4
22	68.7	54.3	...	...	...	...	+0.2	+1.2	...	...	...	...	22	69.8	53.2	...	...	...	...	+1.3	+0.1	...	...	...	...
23	67.2	56.3	61.3	66.3	64.5	56.8	-1.8	+1.5	-0.4	-0.6	+0.6	+2.0	23	68.5	54.9	61.9	67.5	64.4	56.0	-0.5	+0.1	+0.2	+0.8	-0.7	+1.2
24	66.9	54.1	59.5	65.6	66.4	58.9	-0.1	+2.0	-0.7	-0.4	+0.1	+1.2	24	69.6	53.2	60.6	67.3	68.5	58.1	+2.6	+1.1	+0.4	+1.3	+2.2	+0.4
25	69.3	51.4	59.0	67.1	66.4	57.4	-1.6	+1.1	-0.3	-0.6	0.0	+0.9	25	71.5	50.8	59.6	69.7	67.8	57.1	+0.6	+0.5	+0.3	+2.0	+1.4	+0.6
26	66.2	50.0	56.8	63.3	65.7	50.0	+0.4	+1.8	-0.7	+0.7	+0.9	+1.2	26	65.3	49.9	57.0	62.1	65.2	50.0	-0.5	+1.7	-0.5	-0.5	+0.4	+1.2
27	68.8	46.3	58.7	65.0	63.8	56.9	-0.1	+2.6	-1.0	+0.3	-0.1	+0.1	27	69.2	45.2	60.4	65.5	64.2	56.7	+0.3	+1.5	+0.7	+0.8	+0.3	-0.1
28	66.6	56.6	60.1	63.4	65.7	58.5	-1.1	+0.3	+0.2	0.0	+0.6	28	67.6	56.5	60.8	64.4	66.9	58.3	-0.1	+0.2	+0.9	+0.8	+1.2	+0.4	
29	74.3	48.3	...	...	...	...	+0.8	+1.7	...	...	...	...	29	75.1	48.3	...	...	...	...	+1.6	+1.7	...	...	...	...
30	70.3	50.9	54.3	67.5	67.0	58.7	-0.9	+1.1	+0.4	-0.2	-0.1	+2.0	30	71.1	50.8	54.4	68.4	68.2	59.0	-0.1	+1.0	+0.5	+0.7	+1.1	+2.3
Means	66.8	51.7	58.7	63.5	64.4	56.5	-0.4	+1.0	-0.1	0.0	0.0	+0.5	Means	67.6	50.8	59.1	63.8	64.6	56.1	+0.4	+0.1	+0.3	+0.2	+0.2	+0.2

READINGS OF DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN and on the ROOF of the MAGNET HOUSE—*continued.*

OCTOBER.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						
	Maxi-	Minimi-	9 ^h	Noon.	15 ^h	21 ^h	Maxi-	Minimi-	9 ^h	Noon.	15 ^h	21 ^h		Maxi-	Minimi-	9 ^h	Noon.	15 ^h	21 ^h	Maxi-	Minimi-	9 ^h	Noon.	15 ^h	21 ^h	
	Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h	Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h		Maximum.	Minimi-	9 ^h	Noon.	15 ^h	21 ^h	Maximum.	Minimi-	9 ^h	Noon.	15 ^h	21 ^h	
d	0	0	0	0	0	0	0	0	0	0	0	0	d	0	0	0	0	0	0	0	0	0	0	0	0	0
1	74.3	51.9	62.3	73.1	71.9	59.8	-1.0	+1.8	-2.7	+0.4	0.0	+0.1	1	75.5	51.2	66.6	72.8	71.4	59.1	+0.2	+1.1	+1.6	+0.1	-0.5	-0.6	
2	64.3	57.9	61.1	62.8	63.1	59.8	-2.5	+0.5	-0.5	-0.7	-0.3	0.0	2	67.5	57.4	62.0	64.9	63.8	59.8	+0.7	0.0	+0.4	+1.4	+0.4	0.0	
3	67.4	53.4	54.9	64.1	66.6	54.8	-0.5	0.0	+0.1	+0.5	+0.8	-0.5	3	68.3	52.3	55.4	63.2	67.2	54.5	+0.4	-1.1	+0.6	-0.4	+1.4	-0.8	
4	56.5	50.3	55.3	55.9	53.8	53.1	-0.4	+0.9	-0.6	+0.1	0.0	-0.2	4	56.8	49.1	55.5	55.7	52.4	53.0	-0.1	-0.3	-0.4	-0.1	-1.4	-0.3	
5	58.0	41.3	48.0	56.9	55.0	52.6	+0.5	+0.1	-1.0	+1.1	-0.1	-0.3	5	58.0	39.9	49.3	56.9	54.8	52.0	+0.5	-1.3	+0.3	+1.1	-0.3	-0.9	
6	59.2	44.5	...	...	...	...	+0.1	-0.5	...	...	...	...	6	58.9	43.1	...	...	...	...	-0.2	-1.9	...	...	...	...
7	51.8	41.1	47.0	50.1	50.9	45.7	+0.1	+0.4	-0.7	+0.1	+0.1	+0.1	7	51.9	39.8	47.3	50.2	51.8	45.2	+0.2	-0.9	-0.4	+0.2	+1.0	-0.4	
8	58.8	41.4	47.8	51.6	56.0	58.7	-0.3	-0.4	-0.2	+0.3	-0.8	0.0	8	58.6	41.1	48.0	51.9	56.7	58.2	-0.5	-0.7	0.0	+0.6	-0.1	-0.5	
9	60.3	50.0	54.8	57.1	57.3	51.0	+1.3	+0.7	+0.4	-0.2	+0.2	0.0	9	59.0	49.4	55.0	56.7	57.8	50.3	0.0	+0.1	+0.6	-0.6	+0.7	-0.7	
10	59.2	39.9	47.1	58.1	58.9	50.3	-0.5	+2.7	-1.9	+0.6	-0.1	+1.6	10	59.7	38.8	49.0	58.1	59.4	50.0	0.0	+1.6	0.0	+0.6	+0.4	+1.3	
11	54.8	50.3	53.1	53.7	54.2	51.1	+0.3	+1.6	+1.0	+0.2	-0.3	+1.4	11	54.5	49.2	52.8	53.2	54.1	50.1	0.0	+0.5	+0.7	-0.3	-0.4	+0.4	
12	61.7	48.5	52.5	60.0	61.6	51.7	-0.6	+0.3	-0.1	-0.7	0.0	+1.2	12	62.7	48.4	53.0	62.0	61.8	51.1	+0.4	+0.2	+0.4	+1.3	+0.2	+0.6	
13	57.8	44.3	...	...	...	...	-0.3	+1.4	...	...	...	...	13	59.3	43.1	...	...	...	...	+1.2	+0.2	...	...	...	...
14	58.2	45.4	50.3	55.9	57.1	45.6	-0.2	+1.4	-0.6	+0.8	+0.1	+1.6	14	59.4	44.2	51.3	55.2	58.1	45.5	+1.0	+0.2	+0.4	+0.1	+1.1	+1.5	
15	58.6	38.9	45.0	57.1	56.2	50.8	-0.6	+2.4	-0.8	+0.7	-0.6	0.0	15	58.7	37.6	46.9	57.5	57.0	50.4	-0.5	+1.1	+1.1	+1.1	+0.2	-0.4	
16	58.0	49.5	50.9	54.7	55.9	56.9	-0.4	+0.3	-0.9	-0.5	-0.4	-0.1	16	59.0	49.2	51.6	55.0	56.3	56.9	+0.6	0.0	-0.2	-0.2	0.0	-0.1	
17	61.1	49.3	55.2	59.4	56.2	53.6	-0.6	+1.1	-1.6	-1.3	-0.2	+0.1	17	61.3	48.2	57.4	60.3	56.5	53.3	-0.4	0.0	+0.6	-0.4	+0.1	-0.2	
18	57.0	49.4	56.3	56.5	56.8	49.7	-0.4	-0.9	-0.3	-0.5	0.0	-0.7	18	57.2	48.2	56.5	57.0	56.7	49.0	-0.2	-2.1	-0.1	0.0	-0.1	-1.4	
19	60.4	45.4	49.7	58.7	57.8	47.2	+0.3	+3.0	-2.0	+1.0	-0.8	+0.2	19	61.3	43.4	51.2	59.1	58.5	46.3	+1.2	+1.0	-0.5	+1.4	-0.1	-0.7	
20	57.0	38.3	...	...	...	...	+0.1	+2.1	...	...	...	...	20	57.1	37.0	...	...	...	...	+0.2	+0.8	...	...	...	...
21	53.9	34.8	38.9	48.9	52.2	46.7	+0.8	+1.2	+0.3	-1.7	+0.2	+0.5	21	54.2	33.9	39.0	50.6	52.4	47.0	+1.1	+0.3	+0.4	0.0	+0.4	+0.8	
22	53.1	41.2	46.3	52.5	52.9	43.9	-0.8	+2.0	-0.1	-0.3	-0.2	+3.0	22	54.5	40.3	46.7	52.0	53.1	44.0	+0.6	+1.1	+0.3	-0.8	0.0	+3.1	
23	53.0	40.6	43.2	50.2	51.9	45.0	-0.3	+1.5	+0.1	+0.3	0.0	+1.3	23	53.1	40.0	43.1	49.9	52.2	44.8	-0.2	+0.9	0.0	0.0	+0.3	+1.1	
24	53.4	39.3	46.8	52.3	52.2	51.7	-0.3	+2.8	+0.5	-0.2	-0.2	-0.6	24	53.5	38.0	47.4	52.7	52.1	51.4	-0.2	+1.5	+1.1	+0.2	-0.3	-0.9	
25	52.1	39.1	44.6	47.9	50.6	39.2	-0.2	+1.6	-0.1	-0.5	+0.3	+1.3	25	51.7	38.1	44.8	47.7	51.1	39.8	-0.6	+0.6	+0.1	-0.7	+0.8	+1.9	
26	52.2	36.0	38.1	46.6	51.9	38.9	-0.3	+3.7	+0.3	+0.9	-0.3	+3.3	26	52.3	34.0	38.3	46.7	52.3	38.6	-0.2	+1.7	+0.5	+1.0	+0.1	+3.0	
27	56.3	30.2	...	...	...	...	-0.5	+0.3	...	...	...	...	27	56.3	29.8	...	...	...	...	-0.5	-0.1	...	...	...	...
28	59.6	47.3	53.0	59.4	57.5	53.8	-0.4	+0.4	-0.8	+0.6	+0.3	+0.1	28	60.2	46.3	53.5	59.6	57.4	53.6	+0.2	-0.6	-0.3	+0.8	+0.2	-0.1	
29	56.0	51.8	52.3	55.6	53.3	52.1	-0.1	+0.5	-0.1	-0.1	+0.3	+0.2	29	56.7	51.2	52.8	56.6	53.2	52.0	+0.6	-0.1	+0.4	+0.9	+0.2	+0.1	
30	55.5	46.6	51.4	54.5	53.9	47.1	-0.6	-0.1	+0.1	0.0	-0.6	-0.4	30	56.4	45.6	51.2	54.1	53.3	47.0	+0.3	-1.1	-0.1	-0.4	-1.2	-0.5	
31	54.8	46.3	49.2	54.7	53.0	47.7	-0.2	0.0	-0.9	0.0	+0.2	0.0	31	55.3	44.9	50.0	54.4	53.0	46.8	+0.3	-1.4	-0.1	-0.3	+0.2	-0.9	
Means	57.9	44.7	50.2	55.9	56.2	50.3	-0.3	+1.1	-0.5	0.0	-0.1	+0.5	Means	58.4	43.6	50.9	56.1	56.5	50.0	+0.2	0.0	+0.3	+0.2	+0.1	+0.2	

READINGS of DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN and on the ROOF of the MAGNET HOUSE—*continued*.

NOVEMBER.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi- mum.	Mini- mum.	9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.	Mini- mum.	9 ^h	Noon.	15 ^h	21 ^h		Maxi- mum.	Mini- mum.	9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.	Mini- mum.	9 ^h	Noon.	15 ^h	21 ^h
1	50·4	43·5	46·8	50·3	50·0	44·9	-0·6	0·0	-0·2	+0·2	-0·1	+0·1	1	51·3	42·1	46·9	50·2	50·1	44·0	+0·3	-1·4	-0·1	+0·1	0·0	-0·8
2	52·4	35·3	43·8	52·4	50·2	41·0	+0·2	-0·5	-0·7	+1·2	-0·6	+2·9	2	53·3	35·1	45·0	52·2	50·8	40·0	+1·1	-0·7	+0·5	+1·0	0·0	+1·9
3	50·3	29·4	...	...	...	...	-0·6	+0·5	...	...	...	...	3	50·6	29·1	...	...	...	...	-0·3	+0·2	...	...	...	...
4	48·0	29·6	34·2	37·7	47·6	35·2	-0·8	+1·4	+0·5	+0·9	-1·0	0·0	4	47·5	29·0	34·0	36·6	47·2	35·1	-1·3	+0·8	+0·3	-0·2	-1·4	-0·1
5	39·0	32·2	33·1	35·8	38·3	38·0	+0·1	0·0	+0·3	-0·2	0·0	-0·2	5	38·9	31·7	32·7	35·8	38·2	37·9	0·0	-0·5	-0·1	-0·2	-0·1	-0·3
6	40·8	30·3	31·7	34·8	38·6	35·3	0·0	+0·1	+0·5	-0·1	+0·9	-0·1	6	40·3	29·9	31·7	35·0	38·5	35·1	-0·5	-0·3	+0·5	+0·1	+0·8	-0·3
7	45·5	31·6	36·1	41·2	44·5	45·4	-0·5	+1·2	+0·3	+0·1	0·0	-0·4	7	45·6	31·1	36·1	41·2	44·8	45·4	-0·4	+0·7	+0·3	+0·1	+0·3	-0·4
8	50·8	44·3	46·6	50·1	49·9	46·2	0·0	-0·7	0·0	+0·1	+0·5	+0·1	8	50·4	44·2	46·8	50·2	50·1	46·0	-0·4	-0·8	+0·2	+0·2	+0·7	-0·1
9	48·9	42·4	45·0	47·2	48·8	46·0	0·0	-0·1	0·0	-0·1	-0·1	0·0	9	48·9	41·5	45·0	47·4	48·9	45·9	0·0	-1·0	0·0	+0·1	0·0	-0·1
10	52·0	45·3	...	...	...	...	0·0	-0·2	...	...	...	...	10	52·0	44·2	...	...	...	...	0·0	-1·3	...	...	...	...
11	54·9	47·4	50·4	52·8	54·2	49·0	+0·1	-0·4	-0·3	0·0	+0·1	-0·1	11	54·8	47·0	50·7	53·0	54·3	48·8	0·0	-0·8	0·0	+0·2	+0·2	-0·3
12	52·9	48·3	50·6	49·6	49·9	50·0	0·0	-0·4	+0·2	-0·1	-0·2	0·0	12	52·7	48·2	50·3	49·7	50·0	50·0	-0·2	-0·5	-0·1	0·0	-0·1	0·0
13	51·0	43·1	47·5	45·8	44·9	43·7	+0·2	-0·1	0·0	0·0	+0·1	0·0	13	51·0	42·5	47·4	45·7	45·1	43·6	+0·2	-0·7	-0·1	-0·1	+0·3	-0·1
14	43·7	34·1	37·9	40·3	39·9	34·6	0·0	0·0	+0·1	-0·4	+0·2	+0·3	14	43·6	33·9	36·8	39·8	39·8	34·1	-0·1	-0·2	-1·0	-0·9	+0·1	-0·2
15	39·8	26·3	28·5	37·3	38·3	32·1	+1·1	-0·2	-0·6	+0·3	-0·4	+1·8	15	39·0	24·9	28·0	36·9	38·2	32·0	+0·3	-1·6	-1·1	-0·1	-0·5	+1·7
16	32·9	22·9	28·0	30·0	32·8	22·9	+1·6	+1·7	+0·5	0·0	+1·9	+0·5	16	33·0	21·9	27·6	30·0	33·0	23·6	+1·7	+0·7	+0·1	0·0	+2·1	+1·2
17	40·8	22·3	...	...	...	...	+0·9	+1·7	...	...	...	...	17	40·9	19·9	...	...	...	...	+1·0	-0·7	...	...	...	...
18	47·1	33·3	39·8	46·7	45·3	46·1	+0·1	-0·8	-0·5	+0·2	0·0	-0·1	18	47·5	32·2	39·4	46·9	45·3	46·0	+0·5	-1·9	-0·9	+0·4	0·0	-0·2
19	52·5	46·1	51·0	52·2	51·9	50·2	0·0	+0·4	-0·1	-0·3	+0·1	-0·2	19	52·4	45·3	51·1	52·2	51·9	50·1	-0·1	-0·4	0·0	-0·3	+0·1	-0·3
20	54·0	49·3	51·7	53·8	53·9	49·8	+0·1	-0·4	-0·2	+0·1	+0·1	-0·3	20	54·2	49·2	51·7	53·9	54·2	49·8	+0·3	-0·5	-0·2	+0·2	+0·4	-0·3
21	53·5	47·3	50·1	53·2	51·9	50·0	+0·2	+0·1	-0·2	-0·1	-0·5	-0·4	21	53·4	46·9	50·1	53·4	52·0	50·1	+0·1	-0·3	-0·2	+0·1	-0·4	-0·3
22	50·3	37·7	44·9	45·8	39·7	38·0	0·0	+0·3	+0·2	+0·4	+0·4	+0·3	22	50·8	36·4	44·9	45·7	39·0	37·3	+0·5	-1·0	+0·2	+0·3	-0·3	-0·4
23	44·1	31·5	34·9	42·6	43·6	36·0	-0·2	+1·2	-0·9	-0·2	-0·1	-0·4	23	44·4	29·9	35·0	42·8	43·5	36·1	+0·1	-0·4	-0·8	0·0	-0·2	-0·3
24	41·9	27·3	...	...	...	...	-0·2	+3·0	...	...	...	...	24	41·8	25·9	...	...	...	...	-0·3	+1·6	...	...	...	...
25	41·1	30·3	30·8	37·8	39·5	34·8	-0·7	-1·0	-0·7	-0·8	-0·5	+1·6	25	41·0	29·0	31·9	38·1	39·4	34·9	-0·8	-2·3	+0·4	-0·5	-0·6	+1·7
26	43·8	31·7	40·0	42·7	42·9	39·4	-0·1	+1·3	-0·3	0·0	+0·1	-0·3	26	43·6	31·1	40·3	42·8	42·8	39·2	-0·3	+0·7	0·0	+0·1	0·0	-0·5
27	45·5	38·7	39·0	43·2	45·0	45·0	-0·5	+0·1	+0·2	-0·4	-0·3	+0·1	27	45·9	38·0	39·0	43·4	45·2	44·7	-0·1	-0·6	+0·2	-0·2	-0·1	-0·2
28	45·9	38·4	43·7	45·1	43·1	38·9	+0·2	0·0	+0·3	-0·1	+0·3	+0·5	28	46·4	37·6	43·7	45·1	42·9	38·6	+0·7	-0·8	+0·3	-0·1	+0·1	+0·2
29	43·1	32·4	34·9	38·8	40·9	39·0	-0·7	+0·2	+0·2	0·0	+0·2	-0·4	29	43·2	31·2	34·7	39·7	40·9	38·3	-0·6	-1·0	0·0	+0·9	+0·2	-1·1
30	46·9	37·4	42·9	45·7	46·9	43·9	+0·2	-0·9	-0·2	0·0	+0·3	-0·4	30	47·6	37·0	43·0	45·8	46·8	44·0	+0·9	-1·3	-0·1	+0·1	+0·2	-0·3
Means	46·8	36·3	40·9	44·3	45·1	41·4	0·0	+0·3	-0·1	0·0	+0·1	+0·2	Means	46·9	35·5	40·9	44·4	45·1	41·2	+0·1	-0·5	-0·1	+0·1	+0·1	0·0

READINGS of DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN and on the ROOF of the MAGNET HOUSE—concluded.

DECEMBER.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.							Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.							Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.							Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						
	Maxi-	Min-	9 ^h	Noon.	15 ^h	21 ^h		Maxi-	Min-	9 ^h	Noon.	15 ^h	21 ^h			Maxi-	Min-	9 ^h	Noon.	15 ^h	21 ^h		Maxi-	Min-	9 ^h	Noon.	15 ^h	21 ^h	
	mm.	mu.																											
d 1	° 48.1	+0.3	... 48.1	... 48.1	... 48.1	... 48.1	... 48.1	° +0.1	° -0.2	°	°	° -0.1	° +0.1	d 1	° 48.2	° 39.2	°	°	°	°	° +0.2	° -1.3	°	°	°	°	°	°	
2	51.9	43.4	45.9	50.3	51.0	47.8	+	+0.2	-0.8	-0.6	-0.4	-0.1	+0.1	2	51.5	43.1	46.0	50.7	51.1	47.0	-0.2	-1.1	-0.5	0.0	0.0	-0.7			
3	48.5	41.7	46.1	48.5	47.9	42.1	+	+0.1	+0.5	-0.3	+0.1	+0.3	+0.7	3	48.5	41.1	46.0	48.5	47.8	41.9	+0.1	-0.1	-0.4	+0.1	+0.2	+0.5			
4	42.3	37.3	39.4	39.0	41.4	40.2	+	+0.4	+1.5	+0.6	+1.3	+0.7	+1.2	4	42.5	36.2	39.1	39.0	41.4	40.6	+0.6	+0.4	+0.3	+1.3	+0.7	+1.6			
5	44.7	34.8	40.9	44.3	43.5	42.0	-	-0.2	+4.0	+1.6	+0.1	0.0	+0.2	5	45.4	34.0	41.6	45.1	43.7	42.0	+0.5	+3.2	+2.3	+0.9	+0.2	+0.2			
6	46.9	35.1	35.1	43.1	44.9	45.9	+	+1.1	+0.8	-0.5	-0.4	0.0	+0.1	6	46.5	33.2	35.0	43.5	45.0	45.6	+0.7	-1.1	-0.6	0.0	+0.1	-0.2			
7	54.9	45.3	53.1	54.9	54.8	52.1	-	-0.3	-0.3	-0.2	0.0	0.0	-0.5	7	55.0	45.0	53.1	55.0	54.9	52.2	-0.2	-0.6	-0.2	+0.1	+0.1	-0.4			
8	54.7	46.4	...	...	...	...	0.0	-0.2	...	...	...	...	...	8	54.6	45.3	...	...	...	...	-0.1	-1.3	...	...	...	...
9	47.2	38.5	42.1	44.4	42.7	38.9	0.0	-0.4	-0.5	-0.3	+0.1	-0.2	9	46.5	37.7	42.1	44.4	42.8	38.4	-0.7	-1.2	-0.5	-0.3	+0.2	-0.7				
10	41.4	32.5	34.9	40.6	40.3	37.1	+	+0.3	-0.6	-0.3	+0.7	-0.3	+0.3	10	41.2	31.9	35.0	40.0	40.2	36.7	+0.1	-1.2	-0.2	+0.1	-0.4	-0.1			
11	42.0	34.3	37.4	40.3	40.9	34.9	+	+0.2	+0.1	0.0	+0.2	+0.1	+0.2	11	41.9	32.9	37.1	40.3	41.2	34.4	+0.1	-1.3	-0.3	+0.2	+0.4	-0.3			
12	46.2	33.2	37.7	41.2	44.0	45.8	+	+0.2	+1.8	0.0	-0.2	0.0	+0.1	12	46.2	31.2	37.5	41.3	44.1	46.1	+0.2	-0.2	-0.2	-0.1	+0.1	+0.4			
13	46.0	41.0	43.0	42.7	42.9	41.6	+	+0.1	-0.2	+0.1	0.0	+0.2	-0.1	13	46.5	40.0	42.8	42.3	42.8	41.1	+0.6	-1.2	-0.1	-0.4	+0.1	-0.6			
14	41.8	37.8	40.3	40.2	39.7	38.7	-	-0.1	-0.2	-0.3	-0.4	+0.2	+0.1	14	41.9	36.3	40.2	40.1	39.7	38.4	0.0	-1.7	-0.4	-0.5	+0.2	-0.2			
15	38.7	31.3	...	...	...	...	-0.1	+0.2	...	...	...	...	...	15	38.5	31.0	...	...	...	...	-0.3	-0.1	...	...	...	...
16	40.7	30.9	34.7	38.5	38.7	31.0	+	+0.2	+1.8	+0.7	-0.1	+0.6	+1.7	16	41.5	28.9	34.4	38.4	38.8	30.0	+1.0	-0.2	+0.4	-0.2	+0.7	+0.7			
17	39.2	26.5	30.7	37.7	37.6	38.8	+	+0.2	+1.7	+2.7	-0.8	+0.1	+0.3	17	39.2	25.6	30.8	38.1	37.5	38.7	+0.2	+0.8	+2.8	-0.4	0.0	+0.2			
18	40.6	32.3	32.8	38.6	39.4	33.9	-	-0.2	-0.7	-0.3	-0.2	-0.1	+0.1	18	40.5	30.9	32.2	39.1	39.2	33.5	-0.3	-2.1	-0.9	+0.3	-0.3	-0.3			
19	40.7	30.0	30.1	37.7	38.4	33.5	+	+0.8	+0.4	-0.9	-0.3	+0.1	-0.1	19	40.6	28.5	30.0	37.6	38.6	33.5	+0.7	-1.1	-1.0	-0.4	+0.3	-0.1			
20	34.5	25.8	26.9	29.9	32.8	33.9	+	+0.4	+0.5	-0.4	-0.2	+0.1	+0.1	20	34.5	24.8	27.0	30.0	32.9	33.9	+0.4	-0.5	-0.3	-0.1	+0.2	+0.1			
21	34.2	28.4	32.9	31.5	31.6	28.9	+	+0.1	0.0	-0.6	-0.1	0.0	+0.1	21	34.6	28.0	33.0	31.5	31.5	29.0	+0.5	-0.4	-0.5	-0.1	-0.1	+0.2			
22	35.3	26.4	...	...	...	...	-0.4	-0.7	...	...	...	...	...	22	35.3	25.9	...	...	...	...	-0.4	-1.2	...	...	...	...
23	39.1	25.9	26.7	36.2	38.0	35.4	-	-0.3	-0.3	+0.5	+0.5	+0.5	-0.4	23	39.0	25.5	27.0	37.8	38.0	35.5	-0.4	-0.7	+0.8	+2.1	+0.5	-0.3			
24	42.7	34.8	39.0	42.5	40.6	36.7	-	-0.2	-0.4	+0.3	0.0	0.0	-0.1	24	43.0	34.9	38.7	42.8	40.6	36.3	+0.1	-0.3	0.0	+0.3	0.0	-0.5			
25	40.1	32.4	...	...	...	...	-0.1	+0.9	...	...	...	...	...	25	39.7	30.9	...	...	...	...	-0.5	-0.6	...	...	...	...
26	41.5	33.5	...	...	...	...	-0.6	-0.5	...	...	...	...	...	26	41.7	32.5	...	...	...	...	-0.4	-1.5	...	...	...	...
27	38.9	31.5	33.1	37.5	37.9	33.0	+	+0.9	+0.3	-0.7	-0.3	+0.2	+0.7	27	38.2	30.1	33.1	38.0	37.6	32.4	+0.2	-1.1	-0.7	+0.2	-0.1	+0.1			
28	44.5	30.5	39.7	41.5	42.0	44.5	+	+0.1	+1.8	+0.2	+0.3	+0.2	+0.2	28	44.7	29.9	40.0	41.9	42.2	44.7	+0.3	+1.2	+0.5	+0.7	+0.4	+0.4			
29	49.0	42.3	...	...	...	...	+0.5	-0.1	...	...	...	...	...	29	48.8	41.3	...	...	...	...	+0.3	-1.1	...	...	...	...
30	55.2	41.3	51.8	53.6	54.4	54.6	-	-0.2	-0.2	-0.5	0.0	-0.1	+0.1	30	55.1	40.1	52.0	53.6	54.4	54.3	-0.3	-1.4	-0.3	0.0	-0.1	-0.2			
31	54.6	50.6	53.7	52.1	51.9	51.7	-	-0.1	-0.4	-0.1	0.0	-0.1	0.0	31	54.6	51.0	53.8	52.1	51.9	51.6	-0.1	0.0	0.0	0.0	-0.1	-0.1			
Means	44.1	35.4	38.7	41.9	42.4	40.1	+0.1	+0.3	0.0	0.0	+0.1	+0.2	Means	44.1	34.4	38.6	42.1	42.4	39.9	+0.1	-0.6	0.0	+0.2	+0.1	0.0				

READINGS of the WET-BULB THERMOMETER placed in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; and EXCESS of the READINGS above those of the corresponding THERMOMETER on the ORDINARY STAND in the MAGNETIC PAVILION ENCLOSURE, in the YEAR 1901.

[No observations have been made of this thermometer on Sundays, Good Friday, Christmas Day, and Public Holidays.]

Days of the Month.	Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.				Days of the Month.	Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h		9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h
JANUARY.																	
d 1	o 35·7	37·4	38·1	39·2	+ o·4	+ o·4	+ o·2	o·0	1	44·9	46·0	43·8	40·2	- o·2	- o·9	- o·3	- o·6
2	34·7	38·0	40·4	37·5	- o·1	+ o·3	+ 1·3	+ o·7	2	41·1	46·1	47·1	44·2	- o·7	- 1·5	- 1·2	- o·8
3	36·6	38·9	38·7	38·1	+ o·2	+ o·1	- o·1	+ o·1	4	40·5	43·3	47·7	46·2	- o·3	- o·4	- o·6	+ o·2
4	37·5	37·5	37·1	32·3	o·0	- o·4	+ 1·1	+ 1·6	5	48·1	49·1	41·1	37·1	- o·9	- o·1	- o·5	+ o·5
5	25·6	30·2	33·5	31·3	- o·4	+ o·2	- o·2	- o·2	6	42·1	39·1	40·1	38·1	+ o·1	- o·3	- 1·3	- o·2
7	27·7	27·0	27·1	27·1	- o·1	o·0	+ o·3	+ o·4	7	39·8	40·3	42·1	40·8	- o·8	- o·9	+ o·1	o·0
8	28·2	29·5	30·2	27·9	- o·2	- o·2	+ o·3	o·0	8	39·0	40·4	40·1	38·4	o·0	- o·6	- o·4	- o·4
9	30·5	35·5	39·4	39·1	+ o·4	- o·2	- o·2	+ o·6	9	36·8	37·2	38·1	36·7	+ o·2	- o·1	- o·7	- o·8
10	40·3	44·1	43·9	37·3	+ o·6	- o·9	+ o·2	- o·3	11	30·3	38·2	41·1	41·4	+ o·3	- o·6	+ o·2	- o·1
11	39·4	42·9	43·5	40·3	+ o·1	- o·4	- o·2	+ o·3	12	40·1	43·4	47·5	41·9	+ o·1	- o·4	- o·5	+ o·3
12	38·6	38·9	39·6	40·1	+ o·3	+ o·2	- o·3	+ o·1	13	36·1	38·8	38·7	37·3	- o·3	- o·3	- o·6	- o·3
14	31·2	37·1	37·5	33·0	+ o·7	- o·3	- o·5	+ o·7	14	38·4	40·9	39·6	37·9	- o·5	- o·5	- o·6	o·0
15	29·7	34·2	34·2	30·9	+ o·3	- 1·3	- o·1	+ o·4	15	38·0	38·9	39·1	38·1	o·0	o·0	- o·2	- o·1
16	34·3	40·9	42·4	45·2	- o·4	- o·1	+ o·1	+ o·2	16	37·2	38·0	40·1	40·1	- o·5	- o·2	- o·4	o·0
17	44·5	45·6	45·7	41·0	- o·3	- o·1	- o·2	+ 1·1	18	37·3	37·0	37·0	33·8	o·0	- o·3	- o·6	- o·7
18	41·2	44·2	46·1	41·9	+ o·5	o·0	+ o·2	+ o·9	19	34·3	36·1	36·9	34·4	+ o·2	+ o·3	+ o·2	+ o·1
19	41·4	43·6	46·2	43·0	- o·1	o·0	- o·1	- o·1	20	37·0	37·1	37·9	35·4	+ o·2	- o·2	- o·2	- o·2
21	46·7	48·3	49·7	47·6	o·0	- o·2	- o·2	- o·2	21	34·7	36·3	35·1	33·1	- o·6	+ o·1	+ o·1	+ o·3
22	45·3	45·6	46·0	46·0	- o·3	- o·1	+ o·1	- o·1	22	32·5	34·3	35·8	34·1	- o·3	+ o·4	- o·9	o·0
23	34·6	39·9	39·8	38·3	+ 1·9	- 1·0	+ o·1	+ o·3	23	36·1	36·4	37·9	34·4	- o·4	- o·4	+ o·1	+ o·2
24	41·1	42·8	44·1	45·4	o·0	o·0	- o·1	- o·1	25	33·8	32·0	33·9	28·8	- o·1	+ o·6	+ o·4	+ o·3
25	36·3	40·5	42·1	40·7	- o·2	- o·5	o·0	- o·3	26	29·0	29·5	30·1	27·9	+ o·3	+ o·4	+ o·4	+ o·2
26	35·4	38·7	40·1	45·4	- o·4	- o·1	- o·1	- o·3	27	29·0	29·7	30·1	27·2	+ o·2	- o·5	+ o·3	+ o·3
28	35·5	37·1	36·7	34·1	+ o·2	+ o·1	+ o·2	+ o·2	28	30·0	30·9	31·1	29·0	- o·4	+ o·1	+ o·1	o·0
29	30·4	34·3	34·7	32·2	- o·3	+ 1·3	+ o·3	+ o·1	29	29·8	33·7	34·1	34·5	+ o·1	+ o·3	+ o·1	+ o·1
30	32·3	34·7	35·1	33·3	+ o·2	+ o·7	o·0	+ o·3	30	39·9	43·1	44·0	42·5	- o·3	- o·3	- o·1	o·0
31	30·7	33·8	34·2	31·5	+ o·2	+ o·1	- o·2	- o·1	Means	36·8	38·3	38·9	36·7	- o·2	- o·2	- o·3	- o·1
Means	35·8	38·6	39·5	37·8	+ o·1	- o·1	+ o·1	+ o·2	Means	36·8	38·3	38·9	36·7	- o·2	- o·2	- o·3	- o·1
FEBRUARY.																	
d 1	o 31·1	33·6	35·1	31·0	o·0	o·0	+ o·1	+ o·9	d 1	40·1	43·4	42·8	37·4	+ o·1	+ o·5	+ o·5	- o·3
4	27·1	31·3	32·9	32·6	+ o·4	+ o·4	- o·4	+ o·2	2	41·1	45·2	45·1	47·7	- o·8	- o·7	- o·3	- o·1
5	31·1	32·4	33·5	33·1	+ o·2	+ o·5	- o·1	- o·1	3	50·1	51·3	50·8	44·0	o·0	- o·1	- o·2	- o·4
6	34·0	35·7	34·1	33·0	- o·4	+ 1·0	- o·3	+ o·1	4	40·5	41·2	42·1	37·3	- o·5	- o·4	+ o·9	+ o·4
7	30·1	32·4	33·1	31·8	- o·2	+ o·4	+ o·2	+ 1·4	6	41·7	47·1	53·1	49·2	o·0	- o·3	- o·2	- o·3
8	31·9	36·9	37·6	36·5	- o·2	o·0	- o·2	+ o·8	9	45·1	47·1	46·6	42·9	- o·6	+ o·3	- o·9	o·0
9	36·2	38·0	38·6	36·3	- o·3	+ o·1	o·0	o·0	10	44·3	46·0	46·1	42·9	- o·1	- o·5	- o·1	o·0
11	34·4	33·5	33·6	30·0	- o·3	- o·3	o·0	+ o·3	11	45·4	43·3	45·9	43·0	- o·4	- o·6	- o·7	+ o·1
12	26·8	32·0	32·5	30·5	+ o·1	+ o·3	+ o·1	+ o·2	12	40·7	42·0	41·9	37·3	+ o·1	- o·3	- o·7	o·0
13	32·1	32·1	32·2	25·2	+ o·2	o·0	- o·3	+ o·6	13	39·4	41·1	43·1	41·1	- o·3	- o·6	- o·7	- o·3
14	22·5	26·3	28·6	29·3	- o·3	+ o·1	+ o·2	- o·2	15	40·1	41·8	42·0	38·3	+ o·2	+ o·4	- o·1	- o·5
15	27·2	29·0	28·1	25·0	- o·1	o·0	+ o·1	+ 1·3	16	41·1	41·8	41·7	39·0	- o·3	+ o·2	- o·1	o·0
16	30·7	35·5	37·3	37·9	- o·6	- o·2	- o·2	o·0	17	40·4	43·3	44·8	41·7	- o·3	+ o·6	+ o·9	+ 2·9
18	31·4	32·4	32·3	32·5	- o·1	+ o·7	o·0	+ o·8	18	42·2	45·5	47·8	41·6	+ o·4	+ 1·3	+ o·1	- o·2
19	31·9	32·6	32·5	32·1	+ o·1	+ o·2	o·0	- o·2	19	46·8	49·8	49·9	45·5	- o·9	+ o·2	- o·5	+ o·7
20	29·6	30·5	29·4	26·3	- o·1	+ o·4	+ o·1	o·0	20	49·5	51·1	50·1	48·1	o·0	- o·1	+ o·3	- o·3
21	27·7	29·4	31·4	34·2	o·0	o·0	+ o·1	+ o·8	22	53·1	54·7	55·5	50·3	+ o·2	o·0	- o·2	+ o·6
22	37·1	39·2	40·0	37·4	- o·3	- o·4	- o·3	+ o·2	23	54·6	57·3	59·1	53·9	- 1·3	+ o·2	+ o·3	+ 1·5
23	37·3	40·3	42·1	38·6	- o·6	- o·9	- o·3	- o·2	24	54·0	56·9	51·1	46·6	+ o·9	+ o·6	+ o·6	+ o·4
25	38·9	43·1	43·0	40·8	- o·5	- o·5	- o·9	- o·2	25	50·1	51·1	52·0	47·1	- o·2	+ o·7	- o·5	+ o·3
26	39·4	39·1	39·0	42·5	- o·7	- 1·2	- o·9	- o·3	26	42·2	45·1	44·2	38·0	+ o·5	- o·5	- o·1	+ o·4
27	42·8	43·1	43·2	41·4	- o·8	- o·7	- o·8	- o·9	27	40·8	42·8	42·2	40·1	- o·1	+ 1·6	+ o·5	+ o·3
28	41·6	44·1	45·1	42·3	- 1·1	- o·2	+ o·7	- o·4	29	44·4	47·2	48·1	42·5	- o·3	+ o·5	+ o·5	+ o·5
Means	32·7	34·9	35·4	33·9	- o·2	o·0	- o·1	+ o·2	30	45·9	51·3	51·4	44·1	+ o·5	- 1·2	+ o·3	+ o·9

READINGS of the WET-BULB THERMOMETER in a STEVENSON'S SCREEN—continued.

Days of the Month.	Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.				Days of the Month.	Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h		9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h
MAY.															JULY.		
1	48.6	51.8	50.5	45.8	-0.4	-0.3	+0.8	+0.1	1	59.0	59.8	62.1	56.6	0.0	-0.1	-0.3	-0.2
2	47.1	49.2	50.2	49.9	+0.2	-0.8	-0.1	+0.8	2	62.0	61.3	60.7	56.6	-0.2	+0.3	-0.4	-0.1
3	47.2	51.1	51.9	47.0	+0.5	-0.4	+0.5	+0.6	3	60.2	61.7	61.1	56.3	+0.4	+0.9	+0.4	+0.5
4	45.2	50.1	51.1	44.9	-0.3	-0.5	-0.5	+0.8	4	58.1	65.1	64.1	60.7	-0.3	+1.4	+0.2	+1.4
6	44.1	46.1	47.1	44.1	+0.2	+0.3	-0.2	+0.4	5	64.9	65.1	65.1	61.9	+0.5	+0.4	+0.4	-0.1
7	44.1	47.7	47.2	42.1	+0.9	+1.3	-0.5	+0.1	6	63.4	64.7	63.9	58.2	+0.1	+1.2	+1.0	-0.4
8	42.1	46.0	43.1	43.1	-0.3	0.0	-0.3	+0.4	8	59.1	62.3	63.9	54.4	+1.5	+1.0	+0.8	+0.6
9	46.1	47.2	45.3	45.1	-0.6	-0.1	0.0	+0.1	9	56.8	60.8	61.5	57.7	+1.0	-0.5	-0.9	0.0
10	45.1	46.4	48.3	44.7	+0.1	+0.2	+0.2	+1.3	10	61.2	64.1	62.0	58.0	+0.2	+1.5	-2.0	+0.5
11	49.2	50.2	51.1	49.1	-0.8	-0.8	-0.1	+1.4	11	63.0	67.4	66.6	60.1	+0.3	-0.5	-0.7	+0.5
13	46.1	54.1	54.3	47.9	-0.6	+0.6	-0.5	+0.3	12	67.9	67.9	67.3	63.0	+0.3	-0.9	-0.4	0.0
14	51.2	57.7	57.3	47.8	-0.5	0.0	-0.5	+0.8	13	59.2	60.3	60.2	56.4	-0.4	-1.1	+0.5	+0.6
15	51.3	53.6	56.4	48.2	+0.5	+1.4	+0.5	+0.5	15	59.9	62.2	61.8	58.3	-0.7	-1.6	+0.5	+1.5
16	44.1	49.1	51.7	44.9	-0.3	-0.6	+0.9	-0.3	16	63.0	63.7	66.1	58.2	+0.3	0.0	+0.1	+0.2
17	43.4	46.6	48.6	46.0	+0.1	0.0	+0.3	+0.4	17	62.4	65.3	68.6	64.8	-0.6	-0.3	+0.1	+0.1
18	46.9	51.8	53.1	46.8	+2.0	+1.2	+0.4	+0.3	18	63.1	68.1	68.3	62.3	-1.0	+0.2	+0.6	+0.6
20	51.0	54.7	54.5	47.1	-0.3	+0.3	0.0	+0.4	19	68.5	70.2	68.4	64.0	-0.7	-0.4	+0.1	-0.3
21	51.1	55.1	53.1	49.6	-0.6	+0.4	+1.0	0.0	20	67.6	66.6	66.2	62.3	+0.4	-0.1	+1.5	-0.2
22	52.2	52.3	53.2	48.6	+0.4	+1.0	+0.4	+0.5	22	60.1	59.0	58.1	58.1	-0.2	-1.3	-0.6	+0.3
23	52.1	50.1	49.6	45.8	+0.3	+0.2	-0.6	+0.6	23	56.4	57.4	58.9	56.3	-0.3	-0.7	-0.2	-0.5
24	53.1	53.6	52.1	48.1	-0.2	-1.1	+0.5	+0.4	24	57.9	58.5	61.0	57.9	-0.6	-0.3	-0.7	0.0
25	55.2	57.9	56.6	50.0	+0.5	+0.2	-0.1	+0.3	25	58.3	59.8	57.2	56.1	-0.4	+0.2	-0.6	+0.8
26									26	59.9	58.2	59.2	56.3	+0.1	-0.1	-0.2	-0.2
27									27	56.6	58.9	59.9	57.5	+0.6	-0.2	+0.2	-0.1
28	57.0	58.2	60.1	56.2	+0.3	-0.6	+0.1	+0.5	29	62.4	63.0	63.1	61.4	+0.8	+0.7	-0.4	-0.1
29	63.8	67.4	65.8	60.2	+0.1	+0.6	+0.5	+0.5	30	63.4	64.7	65.1	63.1	+0.1	+0.9	+0.7	+0.6
30	60.1	61.6	57.3	56.4	-0.1	+0.3	-0.5	-0.2	31	64.9	67.1	67.4	60.8	+0.8	+0.4	-1.3	+1.0
Means	49.8	52.6	52.6	48.1	0.0	+0.1	+0.1	+0.4	Means	61.5	63.1	63.3	59.2	+0.1	0.0	-0.1	+0.2
JUNE.															AUGUST.		
1	56.8	58.1	54.9	52.6	-0.2	+1.1	-0.8	-0.6	1	61.3	63.9	65.6	62.9	-0.4	-0.5	+0.1	+0.9
3	54.8	58.1	56.1	53.7	0.0	-0.2	-1.0	-0.6	2	62.3	64.1	62.1	60.5	-0.9	+0.1	+0.1	+0.2
4	52.2	57.4	57.7	53.6	-0.1	+0.3	-0.1	-0.2	3	58.0	61.3	62.3	59.1	-0.7	+1.2	+0.8	+0.2
5	53.1	56.9	59.1	56.8	-0.4	+2.0	+0.7	-0.1	6	56.1	60.1	63.7	55.7	+0.2	-0.8	+0.4	+0.2
6	58.1	59.1	58.5	51.2	-0.5	-0.7	-0.8	+0.2	7	58.2	62.1	64.0	60.0	+1.0	+0.6	+0.2	+0.2
7	53.1	54.2	53.7	48.3	-0.2	-1.1	-0.4	-0.2	8	64.2	65.4	65.1	62.6	+0.9	+1.0	-0.4	+0.4
8	54.2	56.8	58.9	50.9	-0.4	+0.1	+0.3	+0.2	9	64.2	66.2	69.5	63.2	+0.8	+0.7	+0.8	+0.7
10	53.2	53.7	56.1	49.8	+0.5	+0.2	-0.6	+0.2	10	65.1	68.2	65.5	58.4	+0.2	-0.4	-0.5	+0.2
11	49.8	52.0	53.1	48.8	-0.6	+0.3	-0.8	-1.0	12	56.5	57.5	57.0	55.1	+0.1	+0.2	+0.4	+0.2
12	50.9	52.4	52.2	47.4	-0.5	-0.4	-0.1	+0.5	13	57.2	59.4	61.0	58.1	+0.7	+0.7	+0.8	+0.0
13	45.3	47.7	48.5	48.3	-0.8	+0.1	-0.3	-0.3	14	61.2	61.3	61.1	58.1	-0.1	+0.2	-0.7	0.0
14	49.0	52.0	52.2	48.4	-1.3	+0.1	+1.0	+0.5	15	60.6	60.1	59.3	58.1	+0.2	+0.3	-0.3	+0.3
15	50.6	50.8	51.0	48.2	+0.4	+1.0	+1.1	+1.2	16	57.5	56.2	56.0	53.0	+0.4	+0.8	0.0	+0.6
17	48.7	50.8	49.1	45.1	+0.2	-1.0	-0.7	+0.2	17	58.9	59.2	59.1	55.5	+0.6	-0.3	-0.2	+1.1
18	46.9	49.0	51.2	47.2	-0.9	+1.6	+2.3	+0.8	19	64.0	66.9	66.8	60.1	+0.3	+1.2	+0.3	+0.3
19	51.3	55.0	54.2	50.5	+0.3	+0.9	+0.3	-0.1	20	57.0	57.7	58.1	53.7	+0.1	+1.0	-0.4	+0.2
20	53.9	57.1	59.4	59.0	-0.4	-0.6	-0.3	0.0	21	59.0	62.1	60.9	56.0	-0.4	+0.7	+0.1	+0.3
21	61.1	64.0	65.8	57.1	+1.0	+1.1	-0.2	+0.7	22	59.0	63.0	61.9	56.4	-0.6	+1.0	+1.1	+0.8
22	59.6	65.1	65.9	61.7	-1.0	-0.6	+0.5	+0.7	23	60.6	63.0	61.4	57.1	+0.1	-1.0	+0.4	+1.0
24	54.3	54.0	54.0	52.8	+0.4	+1.1	-0.5	+0.8	24	59.1	64.4	66.5	59.7	-0.2	+0.3	-0.3	+0.4
25	56.2	57.6	58.1	54.3	+1.1	+0.5	+0.1	+0.6	26	52.1	49.7	53.0	48.9	-0.2	+0.6	-0.1	-0.5
26	56.2	58.4	59.6	56.1	+0.4	+0.5	-0.4	+0.3	27	49.6	50.9	51.3	52.5	-1.1	-0.5	-0.4	+0.2
27	57.9	57.9	58.2	53.1	+1.2	+0.5	+0.2	+0.1	28	48.3	51.1	52.0	47.7	+0.1	+0.6	+0.8	-0.1
28	58.2	58.9	60.2	55.7	-1.3	-0.5	+0.3	-0.2	29	49.4	51.9	53.9	51.6	+0.3	-0.6	-0.6	+0.7
29	58.8	58.9	58.2	55.2	+0.5	+0.2	+1.4	+0.5	30	56.2	59.9	59.1	55.7	-0.3	+0.1	+0.2	-0.3
Means	53.8	55.8	56.2	52.2	-0.1	+0.3	0.0	+0.2	Means	58.3	60.2	60.7	56.8	+0.1	+0.3	+0.1	+0.3

READINGS of the WET-BULB THERMOMETER in a STEVENSON'S SCREEN—concluded.

Days of the Month.	Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.				Days of the Month.	Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h		9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h
SEPTEMBER.																	
1	◦	◦	◦	◦	◦	◦	◦	◦	1	44.2	45.4	44.4	41.7	- 0.1	+ 0.6	+ 0.1	+ 0.2
2	52.1	52.2	52.4	48.8	+ 0.9	0.0	- 0.1	+ 0.1	2	40.6	45.7	43.8	39.3	- 0.3	+ 1.0	+ 0.2	+ 1.6
3	51.1	53.3	54.2	51.1	0.0	- 0.2	- 0.2	+ 0.2	4	34.2	36.6	44.2	35.2	+ 0.5	+ 1.1	- 0.9	0.0
4	51.1	52.3	52.1	48.7	0.0	+ 0.3	- 0.9	0.0	5	33.1	35.8	38.1	38.0	+ 0.4	+ 0.2	- 0.1	- 0.1
5	51.9	51.7	54.1	50.5	- 0.5	0.0	+ 0.4	+ 0.3	6	31.7	34.6	37.2	35.1	+ 0.5	+ 0.3	+ 0.1	0.0
6	53.1	53.2	53.3	50.8	+ 0.5	- 0.2	- 0.9	+ 0.1	7	36.1	41.1	44.1	45.1	+ 0.3	+ 0.2	- 0.1	- 0.2
7	55.8	58.4	57.1	53.9	- 0.9	+ 0.3	- 0.4	+ 0.2	8	44.2	45.0	45.1	42.6	0.0	+ 0.2	+ 0.2	+ 0.2
9	59.9	62.1	62.3	58.3	- 0.2	- 0.4	- 0.2	+ 0.2	9	43.1	44.0	45.0	43.8	+ 0.3	+ 0.3	+ 0.2	+ 0.2
10	56.3	61.5	63.0	59.3	0.0	+ 0.4	+ 0.8	- 0.2	11	45.7	48.9	49.2	47.3	+ 0.2	+ 0.2	+ 0.4	+ 0.1
11	54.6	54.8	55.1	53.8	- 0.7	- 0.1	- 0.2	+ 0.1	12	47.2	47.2	49.1	46.0	0.0	- 0.1	0.0	0.0
12	55.6	58.3	58.4	55.1	- 0.4	- 0.3	+ 0.7	+ 0.3	13	44.1	45.0	43.1	43.1	+ 0.1	0.0	+ 0.1	0.0
13	55.1	57.4	57.9	55.5	+ 0.4	- 0.3	+ 0.5	- 0.2	14	35.2	36.7	35.8	32.9	- 0.1	- 0.2	+ 0.5	+ 0.4
14	55.0	57.1	55.1	52.3	+ 1.2	+ 1.5	+ 0.4	+ 0.6	15	27.7	33.6	34.8	30.4	- 0.5	- 0.2	+ 0.1	+ 1.1
16	51.1	53.5	56.9	53.3	- 1.0	- 0.5	0.0	+ 1.2	16	27.9	29.5	30.6	22.1	+ 0.5	+ 0.1	+ 0.9	+ 0.4
17	58.5	60.9	63.1	58.7	+ 0.1	+ 0.2	+ 0.3	+ 0.1	18	37.8	42.2	42.1	42.1	+ 0.1	+ 0.3	0.0	- 0.1
18	48.6	50.5	54.1	48.8	+ 0.5	+ 0.2	+ 1.3	+ 0.7	19	48.5	48.1	47.3	46.1	+ 0.1	- 0.2	0.0	+ 0.1
19	53.0	53.8	53.2	52.4	0.0	+ 0.2	- 0.3	+ 0.7	20	48.3	49.4	49.3	47.1	+ 0.2	+ 0.2	+ 0.1	- 0.2
20	59.1	59.9	60.2	57.7	+ 0.3	- 0.8	- 0.4	0.0	21	47.2	50.1	50.7	48.0	- 0.3	0.0	- 0.3	+ 0.2
21	59.2	60.1	60.1	57.2	- 0.8	- 0.2	+ 0.3	- 0.3	22	43.7	45.1	38.4	36.3	0.0	+ 0.4	+ 0.5	+ 0.5
23	59.3	60.9	59.4	55.2	- 0.6	- 0.5	- 0.3	+ 0.8	23	32.9	38.9	40.1	35.1	0.0	+ 0.1	+ 0.3	+ 0.3
24	58.0	60.0	60.4	57.1	- 0.6	- 0.5	- 0.5	+ 0.4	25	30.2	35.2	34.9	32.6	- 0.1	- 0.1	- 0.4	+ 0.9
25	57.1	60.8	60.3	56.0	- 0.4	- 0.9	+ 0.5	+ 0.5	26	38.7	39.9	40.4	38.7	0.0	+ 0.1	- 0.4	- 0.2
26	53.9	55.2	55.7	48.7	- 0.1	+ 0.3	+ 0.8	+ 0.9	27	38.9	42.1	43.1	42.1	+ 0.2	- 0.2	- 0.1	- 0.2
27	54.1	58.0	58.1	55.1	- 0.3	+ 0.9	+ 0.2	- 0.4	28	41.1	40.8	38.2	34.9	- 0.2	0.0	0.0	0.0
28	57.5	58.7	60.2	57.0	+ 0.1	+ 0.1	+ 0.2	+ 0.3	29	32.3	35.9	38.1	37.9	- 0.3	+ 0.2	- 0.2	- 0.1
30	54.1	61.2	63.0	58.1	+ 0.2	- 0.5	+ 0.1	+ 1.6	30	41.0	42.7	43.3	41.1	+ 0.1	0.0	- 0.3	- 0.2
Means	55.0	57.0	57.6	54.1	- 0.1	0.0	+ 0.1	+ 0.3	Means	39.1	41.5	41.9	39.4	+ 0.1	+ 0.2	0.0	+ 0.2
OCTOBER.																	
1	◦	◦	◦	◦	◦	◦	◦	◦	2	43.5	46.7	48.1	46.3	- 0.2	- 0.2	- 0.2	0.0
2	60.2	64.2	62.2	57.9	- 1.7	- 0.2	- 0.6	- 0.1	3	42.6	43.7	43.3	40.1	0.0	+ 0.4	+ 0.5	+ 0.7
3	53.1	57.0	59.1	52.9	+ 0.3	- 0.3	+ 0.8	0.0	4	38.2	38.2	40.0	39.1	+ 0.2	+ 1.3	+ 0.3	+ 0.9
4	54.6	55.2	52.4	49.7	- 0.7	- 0.2	- 0.2	0.0	5	39.1	41.6	40.1	39.7	+ 0.8	- 0.4	+ 0.3	0.0
5	45.8	50.5	50.6	51.2	- 0.2	+ 0.7	+ 0.2	- 0.5	6	35.1	40.2	41.7	43.5	- 0.1	+ 0.1	+ 0.1	+ 0.2
7	42.4	44.5	44.5	42.4	- 0.8	+ 0.2	+ 0.1	+ 0.4	7	51.3	52.8	53.1	50.2	- 0.3	0.0	- 0.2	- 0.1
8	45.3	50.1	54.8	57.0	- 0.1	+ 0.1	- 0.4	- 0.2	9	40.1	41.2	39.4	35.5	- 0.3	- 0.3	- 0.2	- 0.2
9	48.3	50.2	51.3	47.3	+ 0.3	0.0	- 0.2	+ 0.4	10	33.3	37.1	37.5	36.2	- 0.4	- 0.2	- 0.2	+ 0.2
10	45.7	51.0	52.7	47.8	- 1.3	+ 0.2	0.0	+ 1.1	11	35.2	37.5	38.1	34.1	- 0.4	- 0.5	- 0.1	+ 0.3
11	52.1	52.0	52.2	50.5	+ 0.6	+ 0.3	- 0.2	+ 1.2	12	37.1	40.5	43.1	45.2	+ 0.4	- 0.2	- 0.2	+ 0.1
12	51.4	56.0	54.4	50.1	- 0.4	- 0.6	- 0.9	+ 0.6	13	42.1	41.8	42.3	41.1	- 0.2	0.0	- 0.1	- 0.2
14	48.5	50.9	49.8	44.0	- 0.5	+ 0.9	0.0	+ 1.1	14	38.5	38.7	38.5	37.0	- 0.3	- 0.2	- 0.2	+ 0.1
15	44.1	51.1	50.5	49.1	- 0.9	+ 0.1	- 0.1	+ 0.1	16	33.7	36.0	35.7	30.4	+ 0.7	+ 0.2	+ 0.7	+ 1.4
16	50.9	54.2	55.0	55.1	- 0.8	- 0.6	- 0.3	0.0	17	29.8	35.1	35.1	37.0	+ 2.2	- 0.6	+ 0.2	+ 0.4
17	52.9	54.1	53.5	52.1	- 0.4	- 0.6	0.0	+ 0.2	18	32.1	36.0	36.5	33.1	0.0	+ 0.3	0.0	+ 0.4
18	54.1	55.2	56.1	48.4	- 0.5	- 0.4	0.0	+ 0.2	19	29.6	35.0	35.1	32.4	- 0.6	- 0.4	+ 0.3	+ 0.6
19	48.0	53.1	52.1	46.0	- 1.2	+ 1.2	+ 0.1	+ 0.7	20	26.6	29.1	32.1	32.9	- 0.3	- 0.4	+ 0.4	+ 0.3
21	38.9	47.7	49.2	45.7	+ 0.3	- 0.6	+ 0.2	+ 0.6	21	32.2	31.1	31.0	28.3	- 0.2	+ 0.3	+ 0.3	+ 0.1
22	45.2	49.9	50.7	43.4	- 0.1	- 0.4	+ 0.2	+ 2.6	23	26.2	33.4	35.8	35.0	+ 0.4	+ 1.0	+ 0.3	+ 0.2
23	43.1	46.2	47.9	44.1	0.0	+ 0.7	+ 0.3	+ 1.3	24	37.1	39.6	39.2	36.5	+ 0.5	- 0.1	+ 0.1	- 0.1
24	44.4	49.2	48.9	50.4	+ 0.2	- 0.1	+ 0.1	- 0.3	25	43.1	51.7	51.4	50.6	- 0.1	- 0.1	- 0.4	- 0.2
25	43.1	45.9	46.2	39.1	0.0	+ 0.3	+ 0.5	+ 1.2	26	38.1	45.1	42.2	35.6	- 0.1	+ 0.3	+ 0.6	+ 0.6
26	38.1	45.1	46.2	38.5	+ 0.3	- 0.3	+ 0.8	+ 2.9	27	32.7	35.8	35.6	32.2	- 0.1	+ 0.1	+ 0.3	+ 0.2
28	50.3	53.7	53.2	51.0	- 0.2	+ 0.8	+ 0.5	+ 0.1	28	38.3	40.1	41.1	43.8	+ 0.3	+ 0.1	+ 0.3	+ 0.2
29	51.9	52.2	52.1	51.1	- 0.1	+ 0.3	+ 0.3	- 0.1	30	50.9	51.8	52.1	52.1	- 0.1	0.0	- 0.1	0.0
30	48.7	48.9	48.1	44.7	+ 0.1	0.0	- 0.3	+ 0.1	31	51.7	51.4	50.6	50.3	- 0.1	- 0.2	- 0.4	- 0.2
Means	48.3	51.7	51.9	48.7	- 0.3	0.0	0.0	+ 0.5	Means	37.4	39.8	40.2	38.8	+ 0.1	0.0	+ 0.1	+ 0.2

READINGS of THERMOMETERS placed in a STEVENSON'S SCREEN near the ORDINARY STAND in the MAGNETIC PAVILION ENCLOSURE; and EXCESS of the READINGS above those of the corresponding THERMOMETERS on the ORDINARY STAND, in the YEAR 1901.

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

[Observations of the maximum and minimum thermometers only have been made on Sundays, Good Friday, Christmas Day, and Public Holidays]

JANUARY.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.											
	Maxi- mum.		Mini- mum.		9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.		Mini- mum.		9 ^h	Noon.	15 ^h	21 ^h	9 ^h		Noon.		15 ^h	21 ^h	9 ^h		Noon.		15 ^h	21 ^h
d	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
1	39.9	36.0	36.2	38.2	38.0	39.9	0.0	0.0	-0.1	-0.1	+0.1	0.0	35.3	37.0	38.0	39.2	0.0	0.0	0.0	+0.1	+0.1	0.0	0.0	0.0	0.0	0.0	0.0	
2	41.9	34.9	34.9	38.7	40.9	37.6	+1.0	+0.3	+0.1	0.0	+0.9	+0.8	34.9	37.6	39.7	37.5	+0.1	-0.1	-0.1	+0.6	+0.7	0.0	0.0	0.0	0.0	0.0	0.0	
3	39.3	34.7	36.5	38.8	39.0	38.7	+0.1	+0.4	-0.2	-0.2	+0.2	0.0	36.3	38.7	39.0	38.0	-0.1	-0.1	-0.1	+0.2	0.0	0.0	0.0	0.0	0.0	0.0		
4	41.1	31.1	37.5	39.9	38.4	31.1	+0.4	+0.4	0.0	+0.2	+0.5	+0.4	37.5	37.9	36.6	31.1	0.0	0.0	0.0	+0.6	+0.4	0.0	0.0	0.0	0.0	0.0	0.0	
5	35.8	23.7	25.4	30.3	35.6	32.8	-0.3	-0.4	-0.6	-0.2	-0.4	-0.6	25.4	29.9	33.4	31.3	-0.6	-0.1	-0.1	-0.3	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	
6	33.3	29.1	...	...	...	...	+0.2	+0.2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	29.7	25.6	28.2	27.2	27.4	27.8	-0.5	+0.1	-0.2	-0.3	-0.3	-0.1	27.7	26.8	26.7	26.7	-0.1	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8	31.8	23.6	28.4	30.0	30.5	28.5	-0.3	+0.3	-0.3	-0.8	-0.1	+0.4	28.3	29.0	30.1	28.3	-0.1	-0.7	-0.1	+0.2	+0.4	0.0	0.0	0.0	0.0	0.0	0.0	
9	42.0	21.4	30.9	36.3	42.0	40.0	+0.7	+0.4	-0.1	-0.4	+0.9	+0.4	29.8	35.4	40.1	38.8	-0.3	-0.3	-0.3	+0.5	+0.3	0.0	0.0	0.0	0.0	0.0	0.0	
10	49.2	37.2	41.0	49.0	47.5	37.5	-0.1	+0.7	+0.5	+1.3	+0.9	-0.2	40.1	45.4	44.1	37.3	+0.4	+0.4	+0.4	+0.4	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	
11	44.9	37.3	39.6	43.9	44.8	40.3	-0.2	+0.5	+0.2	0.0	+0.1	0.0	39.5	43.0	43.6	40.1	+0.2	-0.3	-0.1	+0.1	+0.1	0.0	0.0	0.0	0.0	0.0	0.0	
12	40.9	38.3	38.7	38.7	40.1	40.3	-1.2	+0.1	0.0	-0.2	-0.4	-0.2	38.2	38.7	39.7	40.0	-0.1	0.0	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0		
13	42.0	39.6	...	...	...	...	-0.5	+0.1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	44.9	30.3	31.6	43.5	44.2	34.0	+0.1	+1.0	+0.4	+1.1	+0.7	+0.1	31.0	37.6	38.4	32.5	+0.5	+0.2	+0.4	+0.2	+0.2	0.0	0.0	0.0	0.0	0.0	0.0	
15	39.0	28.4	30.2	39.0	37.2	31.9	+0.1	+0.5	+0.3	+0.9	+0.2	+0.2	29.6	35.7	34.5	30.8	+0.2	+0.2	+0.2	+0.2	+0.3	0.0	0.0	0.0	0.0	0.0	0.0	
16	46.1	30.2	35.9	43.2	43.1	45.8	+0.2	+1.0	+0.2	+0.2	+0.1	+0.1	34.9	41.0	42.3	45.2	+0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17	48.3	40.3	45.7	46.7	48.3	40.3	+0.1	+0.2	-0.1	-0.3	+0.1	+0.2	44.7	45.3	45.9	40.1	-0.1	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
18	48.2	37.2	41.1	45.0	48.2	42.1	+0.3	+0.8	0.0	+0.4	+0.5	+0.2	40.5	44.4	46.0	41.2	-0.2	+0.2	+0.2	+0.1	+0.2	0.0	0.0	0.0	0.0	0.0	0.0	
19	48.4	42.1	43.0	44.2	47.7	44.0	+0.2	+0.7	+0.1	-0.2	0.0	-0.1	41.7	43.4	46.3	43.0	+0.2	-0.2	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	
20	47.9	38.4	...	...	...	...	0.0	+0.3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	52.5	47.2	48.7	51.6	51.6	50.5	+0.1	+0.4	0.0	-0.1	-0.1	-0.1	46.9	48.7	50.0	48.0	+0.2	+0.2	+0.1	+0.2	+0.2	0.0	0.0	0.0	0.0	0.0	0.0	
22	50.6	47.7	48.1	49.0	49.5	48.6	+0.1	+0.2	0.0	0.0	-0.2	+0.1	45.9	45.9	46.3	46.5	+0.3	+0.2	+0.4	+0.4	+0.2	0.0	0.0	0.0	0.0	0.0	0.0	
23	48.7	33.2	33.7	45.7	43.1	38.5	-0.1	+0.5	+0.8	+1.0	+0.2	-0.2	33.4	41.4	40.0	38.2	+0.7	+0.5	+0.3	+0.2	+0.2	0.0	0.0	0.0	0.0	0.0	0.0	
24	47.1	35.4	41.3	43.4	45.6	47.1	-0.1	+0.4	-0.3	-0.1	-0.1	-0.1	41.1	42.8	44.2	45.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
25	47.4	37.9	39.7	46.0	46.8	43.8	+0.2	+0.4	+0.4	-0.1	0.0	+0.1	37.0	41.1	42.6	41.3	+0.5	+0.1	+0.5	+0.3	+0.3	0.0	0.0	0.0	0.0	0.0	0.0	
26	48.2	36.9	38.4	42.3	43.8	48.0	+0.3	+0.6	+0.2	0.0	-0.1	+0.1	36.2	39.2	40.3	46.0	+0.4	+0.4	+0.1	+0.1	+0.3	0.0	0.0	0.0	0.0	0.0	0.0	
27	54.2	43.4	...	...	...	...	+0.1	+0.2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	44.3	35.2	36.1	39.3	38.1	36.7	+0.2	0.0	+0.4	-0.2	+0.1	0.0	35.6	37.0	36.6	34.1	+0.3	0.0	+0.1	+0.2	+0.2	0.0	0.0	0.0	0.0	0.0	0.0	
29	38.3	30.1	32.1	35.7	37.2	34.3	+0.1	+0.6	-0.2	-0.2	-0.1	+0.3	30.4	33.0	34.7	32.3	-0.3	0.0	+0.3	+0.2	+0.1	0.0	0.0	0.0	0.0	0.0	0.0	
30	39.3	33.2	33.9	37.0	39.0	35.0	-0.2	+0.7	+0.1	+0.2	+0.2	+0.2	32.1	34.3	35.3	33.1	0.0	+0.3	+0.2	+0.1	+0.1	0.0	0.0	0.0	0.0	0.0	0.0	
31	36.6	30.7	31.6	35.8	36.2	32.3	-0.3	+0.3	+0.1	-0.1	-0.3	+0.2	30.5	33.6	34.3	32.0	0.0	-0.1	-0.1	+0.4	+0.4	0.0	0.0	0.0	0.0	0.0	0.0	
Means	43.3	34.5	36.6	40.7	41.6	38.8	0.0	+0.4	+0.1	+0.1	+0.1	+0.1	35.7	38.7	39.6	37.7	+0.1	0.0	+0.2	+0.2	+0.2	0.0	0.0	0.0	0.0	0.0	0.0	

READINGS of THERMOMETERS in a STEVENSON'S SCREEN in the MAGNETIC PAVILION ENCLOSURE—*continued*.

FEBRUARY.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h
1	38.9	30.3	32.0	35.5	38.4	32.1	0.1	+0.3	+0.3	-0.2	0.0	+0.5	31.1	33.5	35.0	30.6	0.0	-0.1	0.0	+0.5
2	42.4	31.4	...	...	...	...	-0.4	+0.9	...	...	...	...	...	...	...	...	...	...	...	...
3	38.4	33.9	...	...	...	...	-0.2	+0.2	...	...	...	...	...	...	...	...	...	...	...	...
4	36.7	24.6	26.7	32.9	35.6	32.7	+0.2	+0.8	-0.2	-0.1	-0.1	-0.1	26.4	30.7	32.9	32.3	-0.3	-0.2	-0.4	-0.1
5	35.0	31.2	31.2	32.8	34.8	33.9	+0.1	0.0	0.0	-0.2	0.0	+0.1	30.7	32.5	33.6	33.2	-0.2	+0.6	0.0	0.0
6	37.6	30.8	35.2	37.1	37.2	34.0	-0.3	+0.3	-0.1	-0.2	-0.2	+0.2	34.2	34.3	34.2	33.1	-0.2	-0.4	-0.2	+0.2
7	37.6	31.4	31.4	36.1	36.8	31.8	0.0	+0.3	+0.3	-0.1	-0.1	+0.5	30.1	31.8	33.0	30.5	-0.2	-0.2	+0.1	+0.1
8	40.1	28.2	33.8	39.0	39.8	36.8	-0.4	+0.7	-0.2	0.0	+0.1	+0.3	32.2	36.9	37.9	36.0	+0.1	0.0	+0.1	+0.3
9	41.3	36.3	37.0	39.7	41.0	40.0	-0.2	+0.2	0.0	0.0	+0.2	+0.1	36.4	37.9	38.5	36.2	-0.1	0.0	-0.1	-0.1
10	41.1	37.3	...	...	...	...	-0.3	+0.7	...	...	...	...	...	...	...	...	...	...	...	...
11	39.8	31.6	35.8	36.1	38.0	31.7	0.0	+0.7	0.0	0.0	-0.4	+0.4	34.5	33.6	34.1	30.0	-0.2	-0.2	+0.5	+0.3
12	37.2	27.3	29.3	35.0	36.6	33.1	+0.2	+0.2	+0.1	0.0	-0.1	0.0	26.9	32.1	32.3	30.3	+0.2	+0.4	-0.1	0.0
13	35.3	27.8	32.7	34.0	34.3	27.8	-0.6	+0.2	-0.1	-0.2	-0.2	+0.2	32.1	32.0	32.0	24.8	+0.2	-0.1	-0.5	+0.2
14	33.5	21.0	23.7	30.9	32.8	31.0	-0.2	+0.6	-0.1	-0.1	0.0	+0.1	22.7	26.2	28.1	29.6	-0.1	0.0	-0.3	+0.1
15	35.2	24.6	30.7	33.6	33.0	25.0	+0.5	+0.2	+0.5	0.0	+0.1	+0.3	27.5	29.0	28.0	24.0	+0.2	0.0	0.0	+0.3
16	41.6	24.3	32.7	39.9	38.9	40.0	-0.3	+1.0	-0.1	-0.1	-0.2	+0.1	31.5	35.6	37.3	38.0	+0.2	-0.1	-0.2	+0.1
17	40.3	32.9	...	...	...	...	+0.4	+0.4	...	...	...	...	...	...	...	...	...	...	...	...
18	36.9	31.2	33.9	35.1	36.0	33.9	-0.1	+0.4	+0.2	+0.2	+0.1	+0.2	31.6	32.0	32.3	32.0	+0.1	+0.3	0.0	+0.3
19	34.5	31.0	32.3	32.8	32.7	32.9	+0.4	+0.4	-0.1	0.0	0.0	-0.1	32.0	32.3	32.5	32.2	+0.2	-0.1	0.0	-0.1
20	36.0	28.7	32.0	33.7	33.2	28.7	-0.4	+0.1	-0.2	+0.7	-0.1	0.0	29.6	30.5	29.4	26.3	-0.1	+0.4	+0.1	0.0
21	35.6	26.2	29.9	33.6	33.2	35.5	-0.3	+0.1	-0.1	-0.2	+0.2	-0.2	27.6	29.4	31.4	33.3	-0.1	0.0	+0.1	-0.1
22	43.9	35.5	38.1	41.8	42.7	40.4	-0.2	+0.3	-0.1	+0.1	0.0	-0.4	37.4	39.7	40.4	37.3	0.0	+0.1	+0.1	+0.1
23	45.4	37.4	40.0	44.0	45.4	39.2	-0.3	+0.1	0.0	-0.4	-0.1	+0.2	38.0	40.8	42.2	39.0	+0.1	-0.4	-0.2	+0.2
24	45.2	38.3	...	...	...	...	-0.2	+0.2	...	...	...	...	...	...	...	...	...	...	...	...
25	47.6	39.2	40.3	46.2	47.0	42.1	-0.1	+0.4	-0.3	-0.2	-0.3	+0.1	39.4	43.6	43.9	41.3	0.0	0.0	0.0	+0.3
26	44.3	39.2	42.1	43.9	43.2	43.6	-0.7	+0.7	-0.2	-0.5	-0.3	+0.3	40.0	40.2	40.1	43.0	-0.1	-0.1	+0.2	+0.2
27	47.4	43.3	44.0	45.9	46.4	43.9	-0.1	+0.1	-0.4	+0.1	-0.3	0.0	43.4	43.9	43.8	42.3	-0.2	+0.1	-0.2	0.0
28	52.0	40.0	44.2	47.3	50.3	44.4	-0.3	+0.8	+0.3	-0.1	+0.4	+0.2	42.8	44.9	45.1	43.0	+0.1	+0.6	+0.7	+0.3
Means	40.0	32.0	34.3	37.7	38.6	35.4	-0.1	+0.4	0.0	-0.1	-0.1	+0.1	33.0	34.9	35.6	33.8	0.0	0.0	0.0	+0.1

READINGS of THERMOMETERS in a STEVENSON'S SCREEN in the MAGNETIC PAVILION ENCLOSURE—*continued.*

MARCH.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.							Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.							Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.																			
	Maxi- mum.		Mini- mum.		9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.		Mini- mum.		9 ^h	Noon.	15 ^h	21 ^h	9 ^h		Noon.		15 ^h	21 ^h	9 ^h		Noon.		15 ^h	21 ^h										
	d	I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°					
I	52.5	38.3	46.2	52.4	50.0	43.1	-0.4	+0.4	-0.1	+0.4	+0.1	0.0	45.2	47.4	44.6	41.0	+0.1	+0.5	+0.5	+0.5	+0.2	0.0	-0.2	-0.7	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2					
2	52.9	36.9	43.0	50.1	52.1	46.9	+0.1	+0.4	+0.1	+0.2	0.0	0.0	41.8	47.4	47.6	45.0	0.0	-0.2	-0.7	-0.7	-0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2			
3	48.1	39.0	...	...	...	...	-0.4	+0.7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	52.7	36.6	41.3	44.1	52.6	48.5	-0.5	+0.4	-0.4	-0.4	-0.3	-0.2	40.6	43.3	47.6	46.2	-0.2	-0.4	-0.7	-0.7	+0.2	-0.2	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4		
5	54.4	40.1	49.6	51.3	44.1	40.1	+0.3	+0.4	-0.3	-0.3	-0.3	-0.3	48.5	49.0	40.7	37.0	-0.5	-0.2	-0.9	-0.9	+0.4	-0.5	-0.2	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	
6	45.8	39.1	45.1	40.3	42.0	40.1	-0.2	+0.8	-0.2	-0.4	-0.8	+0.2	42.1	39.0	40.5	38.1	+0.1	-0.4	-0.9	-0.9	-0.6	-0.2	-0.2	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9		
7	47.6	40.1	40.8	46.0	45.0	42.3	-0.9	-0.2	-0.2	-0.1	-0.3	0.0	40.0	41.0	42.0	41.0	-0.6	-0.2	0.0	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2		
8	43.1	36.8	40.0	42.8	41.5	40.5	0.0	+0.3	+0.1	-0.2	-0.2	-0.1	39.0	40.8	40.2	38.8	0.0	-0.2	-0.3	-0.3	0.0	-0.2	-0.2	-0.3	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2			
9	43.6	35.8	37.8	42.0	42.2	40.1	-0.6	+0.4	-0.1	+0.8	-0.4	-0.4	36.6	37.5	38.6	37.2	0.0	+0.2	-0.2	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2			
10	42.0	31.3	...	...	...	...	-0.9	+0.8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	44.7	30.2	31.2	41.2	44.7	43.3	+0.2	0.0	-0.1	-0.7	+0.3	+0.6	30.0	38.4	41.2	42.0	0.0	-0.4	+0.3	+0.5	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2		
12	51.6	39.2	40.6	46.1	51.4	42.6	-0.3	+0.1	-0.2	-0.3	-0.1	0.0	40.0	44.0	48.2	42.4	0.0	+0.2	+0.2	+0.8	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2		
13	42.6	29.2	36.3	40.7	41.1	38.0	0.0	+0.2	-0.1	-0.1	-0.2	+0.2	36.1	39.1	39.3	37.6	-0.3	0.0	0.0	0.0	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3		
14	45.0	36.3	39.6	43.0	41.1	38.5	-0.8	+0.3	-0.1	-0.3	-0.3	-0.1	39.0	41.3	40.0	38.0	+0.1	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1			
15	41.7	37.4	39.0	41.0	41.7	39.1	-0.5	+0.1	0.0	0.0	0.0	0.0	38.0	38.7	39.0	38.0	0.0	-0.2	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2			
16	43.1	37.0	37.9	39.1	42.6	41.1	-0.3	+0.1	-0.4	-0.2	-0.1	+0.2	37.6	38.0	40.3	40.0	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1		
17	48.1	36.1	...	...	...	...	-0.8	+0.3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	41.2	36.3	38.3	40.8	40.5	36.9	0.0	+0.5	-0.3	0.0	-0.2	0.0	37.3	37.3	37.1	34.2	0.0	0.0	0.0	-0.5	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	
19	42.4	34.6	37.9	40.5	38.3	34.6	-1.0	+0.1	-0.1	+0.1	-0.1	-0.1	34.0	36.1	36.8	34.3	-0.1	+0.3	+0.3	+0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	40.3	34.3	37.6	38.3	39.1	37.9	+0.3	+0.1	-0.1	+0.3	-0.4	-0.3	36.9	37.3	38.1	35.8	+0.1	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	
21	41.9	36.5	37.9	41.9	40.1	36.5	-0.3	+0.5	-0.3	+0.1	+0.1	-0.2	35.0	36.5	34.8	33.2	-0.3	+0.3	+0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	
22	43.8	31.6	37.2	39.7	43.8	37.9	-0.1	+0.3	-0.2	+0.1	+1.1	0.0	32.9	34.3	37.0	34.3	+0.1	+0.4	+0.3	+0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	
23	41.4	36.0	38.1	40.0	40.9	38.1	-0.7	-0.8	-0.4	0.0	-0.5	+0.1	36.3	37.1	37.7	34.7	-0.2	+0.3	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1		
24	40.6	31.2	...	...	...	...	-0.2	+0.6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	37.8	31.1	34.5	31.7	36.2	31.1	-0.7	+0.4	0.0	0.0	-0.4	+0.3	34.0	31.4	33.4	28.7	+0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	
26	37.5	26.8	31.6	35.2	37.5	31.3	-1.1	+0.4	-0.1	-0.4	-0.1	+0.6	28.7	29.2	29.6	28.0	0.0	+0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1		
27	38.1	27.3	31.6	36.3	36.2	30.2	-1.1	+0.9	0.0	-0.3	-0.4	+0.4	28.8	30.0	30.0	27.1	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2		
28	39.0	26.2	31.9	35.0	36.5	32.3	-0.7	+0.7	-0.1	+0.5	-0.2	+0.3	30.1	31.0	31.1	29.1	-0.3																					

READINGS of THERMOMETERS in a STEVENSON'S SCREEN in the MAGNETIC PAVILION ENCLOSURE—*continued.*

APRIL.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi- mum.	Mini- mum.	9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.	Mini- mum.	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h
1	51.4	38.0	43.9	49.2	49.0	42.2	-0.8	+0.6	0.0	-0.5	-0.1	+0.2	40.0	42.9	42.5	38.0	0.0	0.0	+0.2	+0.3
2	53.6	31.3	46.0	52.2	52.7	52.9	-1.1	+1.0	-0.9	-1.1	-1.0	+0.2	42.0	46.0	46.0	48.0	+0.1	+0.1	+0.6	+0.2
3	56.9	44.2	51.5	53.8	54.3	44.2	-1.1	-0.4	-0.4	-0.3	-0.3	-0.4	50.1	51.4	51.2	44.0	0.0	0.0	+0.2	-0.4
4	52.8	42.2	44.7	46.8	49.3	42.2	+0.2	+0.5	+0.9	-0.7	-0.7	+0.5	41.1	41.0	41.3	37.6	+0.1	-0.6	+0.1	+0.7
5	46.7	35.2	...	...	...	...	-0.9	+0.8	...	...	...	...	...	...	...	...	...	...	...	...
6	55.6	32.2	42.2	47.9	54.6	50.6	-0.5	+1.5	-0.3	-0.4	-0.2	-0.1	42.0	47.2	52.9	49.2	+0.3	-0.2	-0.4	-0.3
7	59.7	49.5	...	...	...	...	-0.9	+0.2	...	...	...	...	...	...	...	...	...	...	...	...
8	55.7	45.7	...	...	...	...	-1.0	+0.5	...	...	...	...	...	...	...	...	...	...	...	...
9	56.0	43.1	49.6	55.1	54.2	44.2	-1.1	+0.4	-0.3	-0.5	-1.2	+0.2	45.4	47.2	47.0	43.2	-0.3	+0.4	-0.5	+0.3
10	51.1	39.0	45.8	46.6	48.9	45.5	-1.5	+0.7	-0.7	-0.9	-0.1	+0.2	43.8	45.9	46.1	43.3	-0.6	-0.6	-0.1	+0.4
11	52.0	41.0	46.2	45.2	49.2	44.2	-0.9	+0.8	-0.5	-0.6	-0.6	-0.1	45.5	43.7	46.0	43.0	-0.3	-0.2	-0.6	+0.1
12	48.8	38.4	42.5	45.2	43.9	39.8	-1.1	+0.1	-0.3	-0.4	-0.3	+0.3	40.2	41.9	42.0	37.6	-0.4	-0.4	-0.6	+0.3
13	49.1	36.1	42.0	41.7	44.8	46.0	+0.1	+0.7	-0.3	-0.8	-0.4	+0.7	39.3	41.0	44.1	41.2	-0.4	-0.7	+0.3	-0.2
14	56.0	37.7	...	...	...	...	-0.8	+0.7	...	...	...	...	...	...	...	...	...	...	...	...
15	51.8	38.2	44.5	47.2	42.1	40.0	+0.1	+0.8	-0.4	-0.3	-1.4	+0.1	39.6	41.1	41.2	39.0	-0.3	-0.3	-0.9	+0.2
16	46.1	37.0	44.7	45.2	46.1	40.5	-1.3	+0.5	-0.2	-0.3	-0.5	-0.1	41.0	42.1	42.1	39.2	-0.4	+0.5	+0.3	+0.2
17	51.9	36.4	44.0	48.0	51.9	42.3	-1.1	+0.2	-0.8	-0.6	-0.5	+1.0	40.5	42.1	43.6	39.3	-0.2	-0.6	-0.3	+0.5
18	59.3	41.2	48.1	54.6	58.3	47.4	-0.7	+0.4	-0.5	-0.2	-0.3	+0.4	41.6	44.0	47.8	42.0	-0.2	-0.2	+0.1	+0.2
19	63.1	40.2	56.0	60.8	61.7	51.3	-0.3	+1.2	-0.5	-0.2	-0.7	+0.2	47.6	49.5	50.1	45.0	-0.1	-0.1	-0.3	+0.2
20	65.9	41.5	60.6	64.9	65.6	54.7	-1.0	+0.9	0.0	-0.2	-0.1	+0.3	49.2	50.0	50.1	47.8	-0.6	-1.1	-0.1	0.0
21	70.5	44.0	...	...	...	...	-0.8	+0.6	...	...	...	...	...	...	...	...	...	...	...	...
22	71.9	48.2	64.9	69.0	70.6	55.7	-1.7	+1.6	+0.1	-1.0	+0.1	+0.4	53.1	54.5	55.8	50.2	+0.2	-0.2	+0.1	+0.5
23	75.0	46.1	65.3	70.3	72.9	57.0	-1.6	+0.7	-1.1	-0.8	-0.8	+1.2	55.6	57.1	59.0	52.9	-0.3	0.0	+0.2	+0.5
24	67.8	45.4	60.8	66.5	64.3	51.3	-1.2	+0.9	+0.4	-0.3	-0.1	-0.1	53.5	56.7	50.6	46.3	+0.4	+0.4	+0.1	+0.1
25	62.7	46.3	57.3	60.0	62.1	51.2	-0.4	+0.3	-0.6	-0.3	-0.3	0.0	50.0	50.7	51.9	46.9	-0.3	+0.3	-0.6	+0.1
26	55.3	41.2	52.5	53.8	53.7	41.2	-1.5	+0.2	+0.1	-0.1	+0.2	-0.1	42.3	45.0	44.2	37.8	+0.6	-0.6	-0.1	+0.2
27	51.5	39.5	44.0	47.0	48.8	42.0	-1.4	+0.4	-0.2	-0.1	-0.2	0.0	40.7	41.5	41.4	39.9	-0.2	+0.3	-0.3	+0.1
28	54.2	37.2	...	...	...	...	-2.5	+0.6	...	...	...	...	...	...	...	...	...	...	...	...
29	56.7	34.1	50.0	54.7	55.5	45.3	-1.2	+0.7	-0.7	-0.1	-0.5	+0.4	43.7	46.5	47.1	42.8	-1.0	-0.2	-0.5	+0.8
30	61.9	39.3	51.8	59.0	59.3	46.0	-3.1	+0.6	-0.3	-1.0	-0.4	+0.6	45.3	52.1	51.2	44.0	-0.1	-0.4	+0.1	+0.8
Means	57.0	40.3	50.0	53.5	54.7	46.6	-1.0	+0.6	-0.3	-0.5	-0.4	+0.2	44.7	46.7	47.3	43.3	-0.2	-0.2	-0.1	+0.2

READINGS of THERMOMETERS in a STEVENSON'S SCREEN in the MAGNETIC PAVILION ENCLOSURE—*continued*.

MAY.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.				
	Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h	
	d	1	63°	36°3	55°2	61°6	56°1	47°5	—1°9	+1°0	+0°5	—0°5	—0°2	0°0	49°1	52°0	50°2	46°0	+0°1	—0°1	+0°5	+0°3
2	54°9	45°8	48°0	52°1	54°8	51°8	—0°3	+0°3	—0°2	—0°6	+0°5	+0°3	46°9	49°3	49°9	49°2	0°0	—0°7	—0°4	+0°1	
3	66°8	44°2	49°1	62°2	65°0	51°1	—1°1	—0°1	0°0	—1°0	—0°7	—0°7	47°0	51°7	51°7	46°1	+0°3	+0°2	+0°3	—0°3	
4	58°7	40°4	48°1	55°4	58°7	46°3	—0°5	+0°6	—0°4	—1°2	0°0	—1°1	45°0	50°0	51°3	44°3	—0°5	—0°6	—0°3	+0°2	
5	59°3	43°3	...	...	...	...	—1°9	+0°2	...	...	...	...	...	...	...	...	...	...	...	...
6	51°2	40°2	45°3	48°6	51°2	48°4	—0°9	0°0	—0°3	—0°5	—0°5	0°0	44°0	45°7	47°0	44°0	+0°1	—0°1	—0°3	+0°3	
7	55°0	42°9	48°5	54°2	52°7	45°0	—1°8	+0°2	—0°2	—0°6	—1°8	+0°3	43°3	46°1	46°2	42°2	+0°1	—0°3	—1°5	+0°2	
8	51°1	40°2	44°0	51°1	44°3	44°7	—0°7	0°0	—0°7	—0°2	—0°4	0°0	42°0	45°9	43°1	43°0	—0°4	—0°1	—0°3	+0°3	
9	50°4	42°3	48°3	50°1	45°3	45°7	—0°4	+0°1	—0°5	—0°3	—0°5	—0°1	46°5	47°3	45°1	45°0	—0°2	0°0	—0°2	0°0	
10	53°2	44°3	46°7	48°7	52°0	44°7	—1°9	+0°1	—0°1	—0°5	—0°8	+0°4	45°0	46°2	48°0	44°0	0°0	0°0	—0°1	+0°6	
11	57°2	40°2	54°2	56°8	56°0	50°5	—2°2	+0°9	—0°6	—0°5	0°0	+0°1	49°6	50°6	51°1	48°1	—0°4	—0°4	—0°1	+0°4	
12	61°3	39°4	...	...	...	...	—0°7	—2°1	...	...	...	...	...	...	...	...	...	...	...	...
13	62°9	44°2	48°9	60°0	62°9	51°0	—0°6	+0°3	—0°6	—0°4	—0°3	+0°1	46°4	53°4	55°1	47°9	—0°3	—0°1	+0°3	+0°3	
14	68°5	41°7	55°2	65°2	67°3	54°5	—1°0	+0°4	—1°5	—0°8	—0°4	+0°1	50°7	57°6	58°1	48°0	—1°0	—0°1	+0°3	+1°0	
15	66°4	42°4	57°3	64°6	65°7	48°6	—0°9	+0°3	—0°1	+0°1	0°0	—0°1	51°0	51°8	55°7	47°7	+0°2	—0°4	—0°2	0°0	
16	58°3	44°2	48°4	55°2	57°5	48°4	—1°8	+0°1	—0°9	—1°9	—0°5	+0°1	43°8	48°4	50°1	45°2	—0°6	—1°3	—0°7	0°0	
17	53°8	41°3	45°4	50°6	53°7	47°3	—0°4	+0°4	—0°3	—0°3	0°0	—0°1	43°0	46°0	48°1	45°2	—0°3	—0°6	—0°2	—0°4	
18	62°2	37°8	51°8	57°4	62°2	49°0	—1°2	+1°2	+0°8	—0°3	—0°3	+0°3	45°3	49°8	52°6	46°6	+0°4	—0°8	—0°1	+0°1	
19	68°2	46°3	...	...	...	...	—1°6	+0°4	...	...	...	...	...	...	...	...	...	...	...	...
20	63°6	44°3	57°0	62°0	63°6	48°3	—1°6	+0°7	—0°9	—0°4	+0°8	+0°2	51°0	53°6	53°8	46°5	—0°3	—0°8	—0°7	—0°2	
21	62°9	43°2	54°9	62°9	62°5	54°0	—2°0	+0°2	—0°4	—0°9	0°0	+0°3	50°8	54°1	52°5	49°9	—0°9	—0°6	+0°4	+0°3	
22	64°7	46°2	61°1	63°8	62°3	54°2	—1°2	+0°5	—0°2	—0°3	—0°4	+0°3	51°5	50°8	53°1	48°4	—0°3	—0°5	+0°3	+0°3	
23	63°8	45°3	60°7	63°4	63°7	52°0	—0°9	+0°2	—0°1	—0°7	—0°7	0°0	51°4	49°2	50°4	45°2	—0°4	—0°7	+0°2	0°0	
24	65°4	44°3	62°1	65°4	65°4	56°0	—2°2	+0°1	—0°2	—0°4	—0°4	0°0	52°7	54°2	51°2	48°1	—0°6	—0°5	—0°4	+0°4	
25	67°2	46°7	60°1	66°8	65°3	51°5	—2°2	+0°4	—1°0	—0°9	—1°4	—0°1	54°0	57°3	56°9	50°0	—0°7	—0°4	+0°2	+0°3	
26	59°1	48°6	...	...	...	...	—3°0	+0°3	...	...	...	...	...	...	...	...	...	...	...	...
27	70°0	43°1	...	...	...	...	—3°0	+0°9	...	...	...	...	...	...	...	...	...	...	...	...
28	74°0	47°0	66°0	72°7	73°6	59°8	—2°0	+0°8	—0°3	—1°6	—1°0	+0°3	57°0	58°0	60°0	56°1	+0°3	—0°8	0°0	+0°4	
29	80°5	54°2	72°1	79°5	79°3	65°0	—2°7	+2°9	—2°2	—1°8	—1°2	+0°3	62°9	66°0	65°0	60°3	—0°8	—0°8	—0°3	+0°6	
30	67°0	57°5	63°5	66°5	62°7	57°8	—2°0	+0°3	—1°1	—1°4	—0°8	0°0	59°2	60°5	57°5	56°7	—1°0	—0°8	—0°3	+0°1	
31	67°4	56°0	59°2	63°4	64°4	57°0	—1°3	—0°2	—0°5	—0°4	—1°3	+0°6	56°3	56°1	56°5	52°5	—0°5	—0°2	—0°8	+0°1	
Means	62°2	44°3	54°3	60°0	60°3	51°2	—1°5	+0°4	—0°5	—0°7	—0°5	+0°1	49°4	52°0	52°3	47°9	—0°3	—0°4	—0°2	+0°2	

READINGS of THERMOMETERS in a STEVENSON'S SCREEN in the MAGNETIC PAVILION ENCLOSURE—*continued*.

JUNE.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.					
	Maxi- mum.		Mini- mum.		9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.		Mini- mum.		9 ^h	Noon.	15 ^h	21 ^h	9 ^h		Noon.		15 ^h	21 ^h
	d	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
2	66·8	47·8	63·3	65·5	62·7	54·0	-2·7	-0·4	-2·2	-0·9	-1·0	-0·2	56·1	56·0	54·4	53·0	-0·9	-1·0	-1·3	-0·2		
3	67·6	53·7	...	...	...	...	-1·7	+0·4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	65·1	50·2	57·8	65·1	63·3	56·4	-2·8	+0·4	-1·2	-2·1	-1·2	+0·1	54·4	56·7	56·0	54·0	-0·4	-1·6	-1·1	-0·3		
5	69·7	49·2	53·2	64·7	66·7	56·8	-0·9	+0·3	+0·4	-0·7	-0·3	+0·2	52·2	57·0	58·2	54·0	-0·1	-0·1	+0·4	+0·2		
6	73·8	49·2	62·3	67·3	72·5	63·5	-2·1	+0·6	-0·5	-0·4	-1·0	+0·7	54·1	55·1	58·2	57·0	+0·6	+0·2	-0·2	+0·1		
7	69·4	55·9	61·3	65·9	68·1	55·9	-1·5	+0·3	-0·6	-0·8	-0·4	+0·3	57·9	59·0	59·0	51·2	-0·7	-0·8	-0·3	+0·2		
8	64·4	46·1	58·9	63·5	61·6	52·0	-1·2	+0·6	-0·9	-1·2	-0·1	0·0	52·5	54·9	54·3	48·5	-0·8	-0·4	+0·2	0·0		
9	68·2	46·0	60·3	65·7	68·0	55·1	-1·0	+0·5	-0·1	-0·7	-0·5	+0·4	54·7	56·0	58·2	51·1	+0·1	-0·7	-0·4	+0·4		
10	78·4	44·8	...	...	...	...	-1·3	+0·5	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	68·2	52·7	60·6	63·0	68·0	58·0	-2·7	+0·4	-1·1	-0·4	-1·5	+0·3	51·9	53·4	56·0	50·2	-0·8	-0·1	-0·7	+0·6		
12	67·0	47·7	58·0	62·7	66·2	58·0	-2·1	+0·2	-0·6	-1·0	-1·4	+0·3	50·7	51·3	53·5	50·0	+0·3	-0·4	-0·4	+0·2		
13	63·2	48·5	55·0	61·8	59·1	48·6	-2·5	-0·2	-0·3	-2·2	-0·6	-0·4	50·7	51·4	51·9	47·0	-0·7	-1·4	-0·4	+0·1		
14	56·6	43·2	52·0	55·0	55·0	52·8	-1·7	+0·5	-0·4	-0·8	-0·7	0·0	45·4	47·0	48·0	48·4	-0·7	-0·6	-0·8	-0·2		
15	63·6	48·8	54·7	62·0	62·3	52·2	-2·3	+0·3	-0·4	-1·2	-0·5	-0·1	49·8	51·0	48·0	-0·5	-0·9	-0·2	+0·1			
16	61·0	46·3	56·2	58·7	59·0	51·3	-2·9	+0·2	-0·6	-0·6	-0·9	+0·4	50·0	49·6	49·7	47·3	-0·2	-0·2	-0·2	+0·3		
17	62·7	49·4	...	...	...	...	+1·2	+0·6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	60·7	50·2	54·8	58·3	58·0	52·0	-2·0	+0·4	+0·8	-1·3	-0·2	+0·3	48·3	51·0	50·0	45·5	-0·2	-0·8	+0·2	+0·6		
19	61·8	45·7	51·4	57·0	60·3	51·9	-1·6	+0·3	-0·3	-0·5	-0·4	+0·3	47·4	47·0	49·0	46·8	-0·4	-0·4	+0·1	+0·4		
20	66·0	44·8	56·3	62·5	64·6	51·3	-3·0	+2·0	-0·7	-0·9	-2·1	-0·3	50·9	53·5	52·1	50·3	-0·1	-0·6	-1·8	-0·3		
21	62·0	50·3	54·9	59·2	61·5	60·0	-2·0	+0·1	-0·5	-0·7	-0·8	+0·2	53·7	57·8	59·0	59·0	-0·6	+0·1	-0·7	0·0		
22	75·8	58·8	64·9	72·1	75·2	61·2	-3·2	+0·1	-0·1	+0·1	-2·8	+0·1	59·9	62·6	64·1	56·6	-0·2	-0·3	-1·9	+0·2		
23	74·3	56·3	61·3	70·8	73·6	64·0	-0·6	0·0	-1·1	-0·9	-0·3	+0·1	59·6	65·0	65·7	61·3	-1·0	-0·7	+0·3	+0·3		
24	68·0	59·4	...	...	...	...	-1·9	+0·2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	66·4	49·2	59·1	63·2	63·6	58·5	-2·0	+0·6	-0·6	-0·6	-1·1	+0·2	54·0	53·0	53·5	52·6	+0·1	+0·1	-1·0	+0·6		
26	69·3	51·1	61·3	66·1	68·7	56·4	-2·0	+0·9	-0·8	-0·7	-0·5	+0·4	55·2	57·2	58·7	54·3	+0·1	+0·1	+0·7	+0·6		
27	71·8	48·6	61·2	68·2	71·2	62·0	-1·8	+0·6	-0·8	-1·3	-0·9	0·0	55·3	57·7	60·1	56·2	-0·5	-0·2	+0·1	+0·4		
28	70·8	51·4	64·0	68·0	69·4	57·5	-1·1	+0·1	-0·5	-0·7	-0·8	+1·4	56·3	57·0	58·4	53·3	-0·4	-0·4	+0·4	+0·3		
29	71·1	49·5	65·5	67·4	69·1	60·0	-1·5	+1·0	-1·5	-1·3	-0·2	+0·3	59·3	59·1	60·2	56·1	-0·2	-0·3	+0·3	+0·2		
30	72·6	57·2	67·5	71·3	69·9	59·2	-2·0	+0·4	-1·2	-0·4	-1·0	+0·2	57·9	58·9	57·0	55·1	-0·4	+0·2	+0·2	+0·4		
Means	67·5	50·2	59·0	64·2	65·5	56·3	-1·8	+0·4	-0·6	-0·9	-0·8	+0·2	53·5	55·1	55·8	52·3	-0·3	-0·4	-0·3	+0·2		

READINGS OF THERMOMETERS in a STEVENSON'S SCREEN in the MAGNETIC PAVILION ENCLOSURE—*continued.*

JULY.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.							Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.							Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.				
	Maxi-mum.	Mini-mum.	9 ^h	Noon.	15 ^h	21 ^h		Maxi-mum.	Mini-mum.	9 ^h	Noon.	15 ^h	21 ^h		9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h	
d	o	o	o	o	o	o		o	o	o	o	o	o		o	o	o	o	o	o	o	c	o
1	68.6	58.2	59.8	62.6	67.2	58.3	-1.7	+0.1	-0.2	-1.1	-1.7	+0.1	58.8	60.1	61.3	57.0	-0.2	+0.2	-1.1	+0.2	-0.2	-0.2	-0.2
2	70.2	54.9	68.2	67.2	66.0	57.0	-1.1	+0.5	-0.4	-0.5	+1.0	0.0	62.6	60.7	62.0	56.8	+0.4	-0.3	+0.9	+0.1	+0.1	+0.1	+0.1
3	70.7	55.3	64.9	70.0	70.0	59.1	-1.2	+0.3	0.0	-0.8	-1.1	+0.4	60.1	60.7	60.8	56.2	+0.3	-0.1	+0.3	+0.4	+0.4	+0.4	+0.4
4	77.2	56.6	61.2	70.9	75.0	65.0	-1.7	+0.4	-1.0	-1.2	-1.7	+0.3	58.0	63.4	64.0	59.3	-0.4	-0.3	+0.1	0.0	0.0	0.0	0.0
5	81.3	60.4	70.9	78.2	80.5	71.8	-2.6	+0.5	-0.4	-0.4	-1.2	+0.1	64.8	65.1	65.0	62.5	+0.4	+0.4	+0.3	+0.5	+0.5	+0.5	+0.5
6	72.0	60.2	66.6	68.6	68.3	60.3	+0.1	0.0	-0.7	-0.6	+0.3	-0.1	62.9	64.0	63.1	58.1	-0.4	+0.5	+0.2	-0.5	-0.5	-0.5	-0.5
7	66.3	56.4	...	...	...	...	-1.5	+0.4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	72.9	48.7	64.1	71.5	72.9	56.9	-1.1	+1.1	+0.4	-0.4	-0.4	+0.2	57.9	61.6	62.3	54.1	+0.3	+0.3	-0.8	+0.3	+0.3	+0.3	+0.3
9	76.1	46.7	61.3	70.8	76.1	60.2	-1.4	+0.5	0.0	-1.2	-0.3	+0.5	56.0	60.3	62.3	58.0	+0.2	-1.0	-0.1	+0.3	+0.3	+0.3	+0.3
10	79.7	49.4	65.7	74.3	79.7	58.1	-1.0	+0.2	-0.3	-0.3	-1.0	+0.4	60.9	62.7	64.1	57.7	-0.1	+0.1	+0.1	+0.2	+0.2	+0.2	+0.2
11	83.3	56.3	67.2	81.0	83.3	66.5	-1.2	+0.2	-0.5	-0.7	-0.9	+0.5	62.5	67.6	67.6	60.2	-0.2	-0.3	+0.3	+0.6	+0.6	+0.6	+0.6
12	83.2	57.3	77.1	81.8	80.1	68.1	-2.9	+0.6	-0.8	-1.1	-0.2	+0.2	68.1	69.0	68.3	63.5	+0.5	+0.2	+0.6	+0.5	+0.5	+0.5	+0.5
13	70.3	58.3	63.3	66.0	67.1	60.6	+0.5	0.0	-0.6	-1.5	-0.4	-0.1	59.6	61.0	59.3	55.9	0.0	-0.4	-0.4	+0.1	+0.1	+0.1	+0.1
14	68.8	53.1	...	...	...	...	-0.8	+0.4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	76.1	53.6	66.0	73.2	75.5	65.0	-2.3	+0.7	-0.5	-2.5	-0.6	+1.1	60.1	63.0	61.6	57.0	-0.5	-0.8	+0.3	+0.2	+0.2	+0.2	+0.2
16	83.0	52.4	73.6	76.2	79.6	65.4	-0.9	+0.7	+0.4	-1.8	-2.6	-0.1	62.2	63.0	64.1	57.8	-0.5	-0.7	-1.9	-0.2	-0.2	-0.2	-0.2
17	81.0	52.2	71.8	77.7	78.8	70.0	-1.9	-0.1	-1.9	-1.0	-0.3	+0.3	61.0	64.6	68.1	64.5	-2.0	-1.0	-0.4	-0.2	-0.2	-0.2	-0.2
18	82.7	59.4	76.4	81.2	82.6	66.1	-1.5	+0.7	-0.8	-1.3	-0.8	+0.8	63.0	66.9	67.1	61.7	-1.1	-1.0	-0.6	0.0	0.0	0.0	0.0
19	86.0	54.7	75.1	83.1	81.7	67.2	-1.9	+0.7	-1.3	-1.2	-0.5	-0.6	68.0	70.0	68.1	63.4	-1.2	-0.6	-0.2	-0.9	-0.9	-0.9	-0.9
20	82.4	59.2	77.2	81.8	80.2	65.7	-1.6	+0.9	0.0	-0.9	-0.7	+0.2	66.1	65.1	64.5	62.2	-1.1	-1.6	-0.2	-0.3	-0.3	-0.3	-0.3
21	84.8	58.5	...	...	...	...	-2.2	+0.9	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	73.0	62.1	65.0	68.3	70.2	63.9	-3.4	+0.5	-0.3	-0.9	-1.3	+0.1	59.7	60.2	58.6	58.0	-0.6	-0.1	-0.1	+0.2	+0.2	+0.2	+0.2
23	65.1	55.2	57.6	61.0	63.7	60.5	-2.0	+0.5	-0.1	-0.7	-1.0	0.0	56.4	57.6	58.1	56.6	-0.3	-0.5	-1.0	-0.2	-0.2	-0.2	-0.2
24	67.0	54.2	61.0	59.1	64.9	59.8	-1.1	+0.7	-0.6	-0.5	-0.8	+0.1	57.9	58.8	60.6	57.9	-0.6	0.0	-1.1	0.0	0.0	0.0	0.0
25	68.0	52.8	62.9	66.5	59.0	56.0	-2.9	+0.6	-0.3	-1.2	-0.7	+0.3	58.1	58.9	57.2	55.2	-0.6	-0.7	-0.6	-0.1	-0.1	-0.1	-0.1
26	62.6	52.3	61.1	61.7	60.6	57.2	-1.4	+0.5	-0.9	-0.1	-0.5	-0.1	59.1	58.0	59.0	56.2	-0.7	-0.3	-0.4	-0.3	-0.3	-0.3	-0.3
27	66.7	55.3	56.2	63.2	65.0	58.0	-1.4	+0.1	-0.3	+0.7	-0.6	-0.4	56.0	59.0	59.0	57.2	0.0	-0.1	-0.7	-0.4	-0.4	-0.4	-0.4
28	70.2	50.2	...	...	...	...	-1.3	+1.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	74.9	51.5	67.6	73.3	70.6	64.1	-1.1	+0.3	+0.8	-0.9	-2.2	+0.7	61.1	62.3	62.2	61.7	-0.5	0.0	-1.3	+0.2	+0.2	+0.2	+0.2
30	76.8	54.5	71.4	73.6	76.4	65.0	-0.8	+0.4	-0.9	-0.6	-0.3	+0.3	63.0	64.0	64.9	62.6	-0.3	+0.2	+0.5	+0.1	+0.1	+0.1	+0.1
31	78.4	58.7	69.2	74.7	77.8	63.4	-1.6	+1.0	-0.5	-1.1	-0.9	+0.5	63.5	65.7	68.0	60.5	-0.6	-1.0	-0.7	-0.2	-0.2	-0.2	-0.2
Means	74.8	55.1	66.8	71.8	73.1	62.6	-1.5	+0.5	-0.4	-0.9	-0.8	+0.2	61.0	62.7	63.0	59.0	-0.4	-0.3	-0.3	0.0	0.0	0.0	0.0

READINGS of THERMOMETERS in a STEVENSON'S SCREEN in the MAGNETIC PAVILION ENCLOSURE—*continued.*

AUGUST.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.							Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.							Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi- mum.	Mini- mum.	9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.	Mini- mum.	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h		
	d	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	74.9	58.2	65.1	71.1	73.2	65.8	-0.4	+0.6	-0.6	-0.6	-0.6	+0.3	61.1	63.9	65.2	62.1	-0.6	-0.5	-0.3	+0.1		
2	73.0	60.4	68.1	71.7	70.3	62.4	-1.5	+0.3	-1.3	-1.0	-0.6	+0.4	62.5	63.0	62.0	60.5	-0.7	-1.0	0.0	+0.1		
3	73.3	55.4	62.0	69.0	71.9	63.0	-2.2	+0.2	-0.9	-0.3	-0.6	+0.2	57.9	60.3	60.5	59.0	-0.8	+0.2	-1.0	+0.1		
4	69.6	56.6	...	...	...	...	-2.8	+0.5	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	66.0	54.2	...	...	...	...	-2.2	+0.4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	73.1	52.3	56.3	63.3	70.3	62.1	-1.4	+0.1	-0.5	-0.5	-0.5	0.0	55.7	60.7	63.3	55.9	-0.2	-0.2	0.0	+0.4		
7	76.1	53.8	63.1	70.2	75.7	64.7	-1.5	+0.5	-0.4	-1.6	-0.9	0.0	57.6	60.2	63.2	59.9	+0.4	-0.9	-0.2	+0.1		
8	76.0	61.4	68.5	73.1	73.5	66.1	-2.5	+0.1	-0.6	-0.2	-1.2	+0.4	63.3	64.8	64.7	62.4	0.0	+0.4	-0.8	+0.2		
9	81.9	54.8	69.1	76.0	81.3	68.6	-2.3	+0.4	-0.6	-1.8	-1.0	-0.3	63.2	64.2	67.7	62.9	-0.2	-1.3	-1.0	+0.4		
10	80.0	62.1	72.0	75.0	72.6	62.1	-2.3	+0.8	-0.2	-1.1	-1.1	+0.1	65.0	68.7	66.3	58.4	+0.1	+0.1	+0.3	+0.2		
11	70.8	48.4	...	...	...	...	-2.1	+0.8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	67.1	51.1	60.5	65.1	61.3	57.9	-2.1	+0.8	-0.3	-0.8	-0.6	0.0	56.6	57.0	56.7	55.4	+0.2	-0.3	+0.1	+0.5		
13	71.1	51.8	60.9	69.8	67.5	60.1	-2.8	+0.6	-0.6	-0.8	-0.5	+0.1	56.6	58.6	60.0	58.1	+0.1	-0.1	-0.2	+0.1		
14	72.0	57.5	69.1	68.0	63.1	59.1	-2.3	+0.4	-1.5	-0.7	-1.0	+0.2	61.0	61.2	61.2	58.2	-0.3	+0.1	-0.6	+0.1		
15	71.2	57.5	64.1	63.7	68.5	63.4	-0.1	+0.2	-0.8	-0.6	-0.2	+0.1	60.0	59.7	59.3	58.3	-0.4	-0.1	-0.3	+0.5		
16	68.8	53.6	62.2	65.9	66.9	56.8	-1.4	+0.4	-0.8	0.0	-0.6	+0.8	57.0	56.1	55.6	53.0	-0.1	+0.7	-0.4	+0.6		
17	71.1	48.4	65.9	68.4	68.8	58.4	-2.6	+0.3	-0.8	-1.5	-0.9	+0.1	58.6	58.0	58.3	54.8	+0.3	-1.5	-1.0	+0.4		
18	80.9	54.4	...	...	...	...	-1.0	+0.5	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	79.5	55.8	71.0	78.0	78.3	64.7	-1.4	+1.0	-0.4	-0.3	-0.6	0.0	63.8	66.3	66.4	60.0	+0.1	+0.6	-0.1	+0.2		
20	71.0	53.4	64.0	69.3	70.0	57.9	-0.9	+0.4	-1.0	+0.6	-0.7	-0.1	56.2	57.5	59.0	53.9	-0.7	+0.8	+0.5	+0.4		
21	71.9	53.6	65.6	71.9	70.2	58.1	-1.2	+0.3	-0.9	-0.8	-0.8	+0.1	59.2	61.2	60.0	56.0	-0.2	-0.2	-0.8	+0.3		
22	73.6	44.4	65.3	72.3	73.6	57.9	-1.3	-0.1	-0.1	-0.1	-0.2	+0.4	59.3	62.2	61.1	56.1	-0.3	+0.2	+0.3	+0.5		
23	77.0	45.4	65.3	73.8	76.1	60.0	-0.9	+0.2	-0.8	-2.0	-0.2	+0.3	60.0	63.2	61.1	56.6	-0.5	-0.8	+0.1	+0.5		
24	74.7	49.0	58.9	71.0	74.6	61.4	-0.7	-0.1	-0.9	-0.2	-0.5	0.0	58.9	64.1	66.9	59.4	-0.4	0.0	+0.1	+0.1		
25	82.2	54.4	...	...	...	...	-0.9	+0.1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
26	69.2	51.9	57.6	54.0	53.9	53.2	+0.4	-0.1	-0.4	-0.6	-0.8	-0.3	52.7	49.2	53.0	49.6	+0.4	+0.1	-0.1	+0.2		
27	63.5	48.0	55.3	59.3	60.1	52.6	-1.1	+0.6	-1.0	-0.5	-0.6	0.0	50.7	50.9	51.4	52.4	0.0	-0.5	-0.3	0.0		
28	62.5	47.3	53.6	58.4	62.5	53.1	-1.0	+0.3	-0.7	-0.6	+0.5	-0.1	48.0	50.7	52.0	48.2	-0.2	+0.2	+0.8	+0.4		
29	64.3	50.2	55.8	60.7	64.3	55.5	-1.5	+0.7	-0.1	-0.2	-0.4	+0.1	49.4	53.0	54.8	51.0	+0.3	+0.5	+0.3	+0.1		
30	68.3	55.4	60.0	66.1	64.5	59.0	-2.3	+0.2	-0.5	-1.5	-1.1	+0.2	56.1	59.1	58.0	55.5	-0.4	-0.7	-0.9	-0.2		
31	66.5	57.0	63.4	65.6	65.4	58.2	-2.3	+0.5	-0.3	-0.5	-0.1	-0.5	58.9	60.0	60.9	57.0	-0.1	-0.1	+0.2	0.0		
Means	72.3	53.5	63.2	68.1	69.2	60.1	-1.6	+0.4	-0.7	-0.7	-0.6	+0.1	58.0	59.8	60.3	56.7	-0.2	-0.2	-0.2	+0.2		

READINGS of THERMOMETERS in a STEVENSON'S SCREEN in the MAGNETIC PAVILION ENCLOSURE—*continued.*

SEPTEMBER.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.				
	Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h	
	d	1	64.5	51.6	...	...	...	...	-0.5	+0.3	...	...	...	...	...	...	...	...	...	...	...
1	64.5	51.6	...	...	...	...	-0.5	+0.3	...	...	...	...	0	0	0	0	0	0	0	0	0
2	61.2	46.2	58.9	59.9	60.3	54.7	-0.6	+0.3	+0.9	-0.2	-0.3	0.0	51.5	51.9	52.7	49.1	+0.3	-0.3	+0.2	+0.4	-0.1
3	64.1	53.0	57.9	62.5	62.2	54.8	-0.6	+0.3	-0.6	-0.1	-0.1	0.0	51.2	53.2	54.0	50.9	+0.1	-0.3	-0.4	0.0	-0.1
4	63.7	53.0	59.6	63.0	62.3	53.3	-0.8	+0.4	-0.7	-0.7	-0.8	-0.1	50.7	52.2	52.1	48.6	-0.4	+0.2	-0.9	-0.1	-0.1
5	64.1	49.2	58.4	59.1	62.5	53.1	-0.4	+1.0	-0.3	-0.5	-0.5	0.0	51.9	51.7	54.1	50.5	-0.5	0.0	+0.4	+0.3	-0.1
6	64.2	42.7	58.6	63.0	63.9	54.0	-1.7	+0.9	-0.1	+1.2	+0.7	+0.2	52.8	54.2	54.9	50.8	+0.2	+0.8	+0.7	+0.1	-0.1
7	68.3	46.2	61.2	68.3	67.6	56.9	-1.2	+0.9	-0.5	-0.1	-0.2	+0.2	55.6	57.8	57.3	53.5	-1.1	-0.3	-0.2	-0.2	-0.2
8	75.2	56.2	...	...	...	...	-1.7	+0.7	...	...	...	...	...	...	...	...	...	...	...	...	...
9	69.3	59.7	64.0	67.6	68.5	59.7	-2.2	+0.6	-0.2	-0.4	-0.8	+0.6	59.7	62.0	62.0	58.3	-0.4	-0.5	-0.5	+0.2	-0.2
10	70.0	54.4	56.2	65.1	69.1	62.0	-1.5	+0.8	-0.4	-0.2	-0.6	+0.2	56.0	60.0	61.4	59.3	-0.3	-1.1	-0.8	-0.2	-0.2
11	62.1	52.2	58.7	56.8	59.0	55.9	+0.4	+0.6	+0.2	-0.3	-0.2	+0.1	54.3	54.7	55.0	53.2	-1.0	-0.2	-0.3	-0.5	-0.5
12	63.8	53.4	57.0	62.0	63.3	56.4	-0.3	+0.2	-0.4	-1.6	0.0	+0.4	55.7	57.6	57.6	55.0	-0.3	-1.0	-0.1	+0.2	-0.2
13	62.9	53.6	56.9	61.0	62.1	58.3	-2.2	+0.3	0.0	-1.3	-0.6	-0.2	54.7	56.8	57.0	55.6	0.0	-0.9	-0.4	-0.1	-0.1
14	65.6	51.3	58.8	64.3	63.3	55.9	-1.5	+0.2	+0.1	+0.5	-0.4	0.0	53.9	56.0	54.5	51.7	+0.1	+0.4	-0.2	0.0	0.0
15	63.0	52.1	...	...	...	...	-1.1	+0.5	...	...	...	...	...	...	...	...	...	...	...	...	...
16	64.7	40.2	54.9	62.0	64.0	53.8	-1.1	+0.6	-0.6	-0.7	-0.7	+0.7	51.9	53.4	56.2	53.0	-0.2	-0.6	-0.7	+0.9	-0.1
17	65.9	53.2	58.9	61.8	65.4	61.1	-0.6	+0.2	-0.4	-0.4	-0.4	-0.1	58.0	60.2	62.5	58.5	-0.4	-0.5	-0.3	-0.1	-0.1
18	63.7	51.2	53.6	58.5	63.0	51.4	-1.2	0.0	0.0	+0.1	-0.3	+0.2	48.1	50.2	52.6	48.1	0.0	-0.1	-0.2	0.0	0.0
19	61.9	44.4	56.5	59.7	59.7	53.7	-1.5	+0.8	-0.4	-1.0	-0.5	0.0	52.1	52.4	53.0	51.7	-0.9	-1.2	-0.5	0.0	0.0
20	67.3	53.2	63.0	65.0	65.4	58.2	-0.1	+0.3	-0.5	-0.7	-0.2	0.0	58.3	60.2	60.5	57.7	-0.5	-0.5	-0.1	0.0	0.0
21	65.4	58.1	61.1	63.0	63.0	58.3	-1.6	+0.6	-0.5	-0.8	-0.4	+0.1	59.7	59.5	59.5	57.4	-0.3	-0.8	-0.3	-0.1	-0.1
22	67.7	53.8	...	...	...	...	-0.8	+0.7	...	...	...	...	...	...	...	...	...	...	...	...	...
23	67.9	55.7	61.2	65.8	64.3	55.8	-1.1	+0.9	-0.5	-0.9	-0.8	+1.0	60.1	60.6	59.1	55.0	+0.2	-0.8	-0.6	+0.6	+0.6
24	66.5	52.5	59.5	64.8	66.3	57.8	-0.5	+0.4	-0.7	-1.2	0.0	+0.1	58.0	59.8	60.9	56.5	-0.6	-0.8	0.0	-0.2	-0.2
25	68.9	50.5	58.7	66.7	66.0	57.1	-2.0	+0.2	-0.6	-1.0	-0.4	+0.6	57.1	60.7	60.0	55.8	-0.4	-1.0	+0.2	+0.3	-0.1
26	65.1	49.1	57.1	62.0	64.7	49.6	-0.7	+0.9	-0.4	-0.6	-0.1	+0.8	54.0	54.5	55.0	48.4	0.0	-0.4	+0.1	+0.6	-0.1
27	68.0	44.4	59.7	64.3	63.1	56.9	-0.9	+0.7	0.0	-0.4	-0.8	+0.1	54.4	57.0	57.2	55.0	0.0	-0.1	-0.7	-0.5	-0.5
28	65.9	56.9	59.6	63.4	65.4	58.1	-1.8	+0.6	-0.3	-0.2	-0.3	+0.2	57.0	58.4	59.5	56.8	-0.4	-0.2	-0.5	+0.1	+0.1
29	74.4	46.2	...	...	...	...	+0.9	-0.4	...	...	...	...	...	...	...	...	...	...	...	...	...
30	70.2	50.6	53.7	67.0	67.0	56.9	-1.0	+0.8	-0.2	-0.7	-0.1	+0.2	53.6	61.0	62.8	56.5	-0.3	-0.7	-0.1	0.0	0.0
Means	66.2	51.2	58.5	63.1	64.1	56.1	-1.0	+0.5	-0.3	-0.5	-0.4	+0.2	54.8	56.6	57.3	53.9	-0.3	-0.4	-0.2	+0.1	+0.1

READINGS of THERMOMETERS in a STEVENSON'S SCREEN in the MAGNETIC PAVILION ENCLOSURE—*continued*.

OCTOBER.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.							Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.							Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi- mum.	Mini- mum.	9 ^h	Noon.	15 ^h	21 ^h		Maxi- mum.	Mini- mum.	9 ^h	Noon.	15 ^h	21 ^h		9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h
d 1	° 75.1	50.3	66.0	72.6	71.7	59.6	-0.2	+0.2	+1.0	-0.1	-0.2	-0.1	1.1	61.8	64.0	62.0	58.0	-0.1	-0.4	-0.8	0.0	
2	65.4	58.0	61.0	62.8	63.1	59.8	-1.4	+0.6	-0.6	-0.7	-0.3	0.0		60.2	61.9	61.0	59.0	-0.5	-0.8	-0.1	-0.1	
3	67.0	53.7	54.5	63.2	66.0	55.5	-0.9	+0.3	-0.3	-0.4	+0.2	+0.2		52.6	57.2	58.7	53.1	-0.2	-0.1	+0.4	+0.2	
4	56.1	50.1	55.4	55.8	53.5	53.5	-0.8	+0.7	-0.5	0.0	-0.3	+0.2		54.9	55.3	52.5	50.0	-0.4	-0.1	-0.1	+0.3	
5	56.9	41.6	49.0	56.0	55.0	53.0	-0.6	+0.4	0.0	+0.2	-0.1	+0.1		46.0	50.0	50.3	51.7	0.0	+0.2	-0.1	0.0	
6	59.3	45.2	...	...	...	...	+0.2	+0.2	...	...	...	...		...	...	...	...	...	...	...	...
7	51.6	41.5	47.2	49.6	50.7	45.7	-0.1	+0.8	-0.5	-0.4	-0.1	+0.1		43.2	44.3	44.4	42.3	0.0	0.0	0.0	+0.3	
8	59.1	42.0	47.9	50.9	56.2	58.4	0.0	+0.2	-0.1	-0.4	-0.6	-0.3		45.4	49.6	55.0	57.0	0.0	-0.4	-0.2	-0.2	
9	58.4	50.0	54.3	57.0	57.2	50.3	-0.6	+0.7	-0.1	-0.3	+0.1	-0.7		48.1	50.2	51.7	47.1	+0.1	0.0	+0.2	+0.2	
10	59.1	37.7	49.5	57.5	59.1	49.0	-0.6	+0.5	+0.5	0.0	+0.1	+0.3		46.9	50.8	53.1	47.0	-0.1	0.0	+0.4	+0.3	
11	54.2	49.0	52.1	53.2	54.1	50.0	-0.3	+0.3	0.0	-0.3	-0.4	+0.3		51.3	51.5	52.1	49.5	-0.2	-0.2	-0.3	+0.2	
12	62.1	48.4	52.1	60.0	61.9	50.7	-0.2	+0.2	-0.5	-0.7	+0.3	+0.2		51.4	55.9	54.9	49.7	-0.4	-0.7	-0.4	+0.2	
13	58.6	43.2	...	...	...	...	+0.5	+0.3	...	...	...	...		...	...	...	...	...	...	...	...
14	57.7	44.4	51.1	55.2	57.2	44.7	-0.7	+0.4	+0.2	+0.1	+0.2	+0.7		49.0	50.1	50.0	43.3	0.0	+0.1	+0.2	+0.4	
15	58.2	37.3	45.8	56.5	57.0	50.9	-1.0	+0.8	0.0	+0.1	+0.2	+0.1		45.0	51.0	50.6	49.0	0.0	0.0	0.0	0.0	
16	57.8	49.8	51.8	55.0	55.8	57.0	-0.6	+0.6	0.0	-0.2	-0.5	0.0		51.6	54.5	54.9	55.0	-0.1	-0.3	-0.4	-0.1	
17	61.2	49.1	57.0	60.2	56.0	53.4	-0.5	+0.9	+0.2	-0.5	-0.4	-0.1		53.3	54.2	53.0	52.0	0.0	-0.5	-0.5	+0.1	
18	57.0	50.8	56.4	56.5	56.6	50.8	-0.4	+0.5	-0.2	-0.5	-0.2	+0.4		54.1	55.0	56.0	48.6	-0.5	-0.6	-0.1	+0.4	
19	59.5	43.2	52.8	57.9	58.1	47.4	-0.6	+0.8	+1.1	+0.2	-0.5	+0.4		49.8	51.8	51.6	45.9	+0.6	-0.1	-0.4	+0.6	
20	57.7	37.3	...	...	...	...	+0.8	+1.1	...	...	...	...		...	...	...	...	...	...	...	...
21	53.0	34.0	38.2	49.2	52.0	46.3	-0.1	+0.4	-0.4	-1.4	0.0	+0.1		38.1	47.3	49.0	45.2	-0.5	-1.0	0.0	+0.1	
22	54.0	39.5	46.0	52.5	52.9	41.1	+0.1	+0.3	-0.4	-0.3	-0.2	+0.2		45.0	49.6	50.3	41.0	-0.3	-0.7	-0.2	+0.2	
23	52.8	39.2	43.0	49.6	52.0	44.0	-0.5	+0.1	-0.1	-0.3	+0.1	+0.3		43.0	45.2	47.6	43.1	-0.1	-0.3	0.0	+0.3	
24	53.6	37.2	46.2	52.2	52.1	52.4	-0.1	+0.7	-0.1	-0.3	-0.3	+0.1		44.0	49.0	48.4	50.7	-0.2	-0.3	-0.4	0.0	
25	52.4	38.2	44.6	48.2	50.2	38.2	+0.1	+0.7	-0.1	-0.2	-0.1	+0.3		43.1	45.5	45.8	38.1	0.0	-0.1	+0.1	+0.2	
26	52.4	32.9	37.8	46.1	52.4	36.1	-0.1	+0.6	0.0	+0.4	+0.2	+0.5		37.8	45.9	46.1	36.1	0.0	+0.5	+0.7	+0.5	
27	56.3	30.1	...	...	...	...	-0.5	+0.2	...	...	...	...		...	...	...	...	...	...	...	...
28	59.7	47.3	54.0	58.8	57.2	53.7	-0.3	+0.4	+0.2	0.0	0.0	0.0		50.7	53.1	52.7	51.0	+0.2	+0.2	0.0	+0.1	
29	55.7	51.8	52.0	55.3	53.0	52.0	-0.4	+0.5	-0.4	-0.4	0.0	+0.1		51.6	52.0	52.0	51.1	-0.4	+0.1	+0.2	-0.1	
30	55.8	47.0	51.1	54.5	54.4	47.1	-0.3	+0.3	-0.2	0.0	-0.1	-0.4		48.5	49.0	48.4	44.7	-0.1	+0.1	0.0	+0.1	
31	55.1	46.4	50.3	54.6	53.0	47.4	+0.1	+0.1	+0.2	-0.1	+0.2	-0.3		43.9	45.8	46.0	45.0	+0.3	0.0	-0.3	+0.3	
Means	57.8	44.1	50.6	55.6	56.2	49.9	-0.3	+0.5	0.0	-0.2	-0.1	+0.1		48.5	51.5	51.8	48.3	-0.1	-0.2	-0.1	+0.2	

READINGS of THERMOMETERS in a STEVENSON'S SCREEN in the MAGNETIC PAVILION ENCLOSURE—continued.

NOVEMBER.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h	Maxi- mum.	Min- imum.	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h
1	50.7	44.1	47.0	50.1	50.2	44.9	-0.3	+0.6	0.0	0.0	+0.1	+0.1	44.3	45.0	44.0	41.3	0.0	+0.2	-0.3	-0.2
2	52.5	36.6	45.4	52.5	51.2	39.6	+0.3	+0.8	+0.9	+1.3	+0.4	+1.5	41.6	45.0	44.0	39.0	+0.7	+0.3	+0.4	+1.3
3	50.9	28.2	...	...	...	...	0.0	-0.7	...	...	...	...	...	...	...	...	...	...	...	...
4	48.1	28.3	33.8	37.1	48.1	35.1	-0.7	+0.1	+0.1	+0.3	-0.5	-0.1	33.8	35.6	45.0	35.1	+0.1	+0.1	-0.1	-0.1
5	39.0	32.3	32.9	36.0	38.1	38.0	+0.1	+0.1	+0.1	0.0	-0.2	-0.2	32.8	35.5	38.0	38.0	+0.1	-0.1	-0.2	-0.1
6	39.8	30.2	31.2	34.5	38.8	35.9	-1.0	0.0	0.0	-0.4	+1.1	+0.5	31.2	34.0	38.2	35.4	0.0	-0.3	+1.1	+0.3
7	45.8	31.6	36.0	41.1	44.6	45.8	-0.2	+1.2	+0.2	0.0	+0.1	0.0	36.0	40.9	44.1	45.1	+0.2	0.0	-0.1	-0.2
8	50.6	45.3	46.6	50.0	49.3	46.0	-0.2	+0.3	0.0	0.0	-0.1	-0.1	44.4	44.8	45.0	42.4	+0.2	0.0	+0.1	0.0
9	48.8	43.1	45.0	47.0	48.8	46.0	-0.1	+0.6	0.0	-0.3	-0.1	0.0	43.0	43.7	44.9	43.7	+0.2	0.0	+0.1	+0.1
10	51.9	45.7	...	...	...	...	-0.1	+0.2	...	...	...	...	...	...	...	...	...	...	...	...
11	54.4	48.2	50.5	52.6	54.1	49.1	-0.4	+0.4	-0.2	-0.2	0.0	0.0	45.7	48.6	49.0	47.2	+0.2	-0.1	+0.2	0.0
12	53.0	48.8	50.3	49.6	50.0	50.0	+0.1	+0.1	-0.1	-0.1	-0.1	0.0	47.1	47.0	49.1	46.0	-0.1	-0.3	0.0	0.0
13	51.1	43.2	47.3	45.4	44.8	43.7	+0.3	0.0	-0.2	-0.4	0.0	0.0	44.0	44.8	43.0	43.1	0.0	-0.2	0.0	0.0
14	43.7	34.3	37.8	40.0	39.6	34.3	0.0	+0.2	0.0	-0.7	-0.1	0.0	35.3	36.2	35.1	32.5	0.0	-0.7	-0.2	0.0
15	39.3	27.1	29.6	37.2	38.9	30.0	+0.6	+0.6	+0.5	+0.2	+0.2	-0.3	28.6	34.3	35.1	29.1	+0.4	+0.5	+0.4	-0.2
16	32.0	21.2	27.1	30.2	31.3	22.0	+0.7	0.0	-0.4	+0.2	+0.4	-0.4	27.1	29.6	30.0	21.7	-0.3	+0.2	+0.3	0.0
17	41.8	21.0	...	...	...	...	+1.9	+0.4	...	...	...	...	...	...	...	...	...	...	...	...
18	47.0	34.3	40.3	46.2	45.2	46.2	0.0	+0.2	0.0	-0.3	-0.1	0.0	37.7	42.0	42.1	42.2	0.0	+0.1	0.0	0.0
19	52.4	46.1	51.1	52.2	51.8	50.3	-0.1	+0.4	0.0	-0.3	0.0	-0.1	48.4	48.2	47.3	46.0	0.0	-0.1	0.0	0.0
20	53.8	49.9	51.8	53.7	53.8	50.2	-0.1	+0.2	-0.1	0.0	0.0	+0.1	48.3	49.2	49.2	47.4	+0.2	0.0	0.0	+0.1
21	53.3	47.4	50.0	53.0	52.0	50.3	0.0	+0.2	-0.3	-0.3	-0.4	-0.1	47.2	49.8	50.9	48.0	-0.3	-0.3	-0.1	+0.2
22	50.4	37.7	44.9	45.2	39.1	37.7	+0.1	+0.3	+0.2	-0.2	-0.2	0.0	43.8	44.6	38.0	36.0	+0.1	-0.1	+0.1	+0.2
23	44.5	31.3	36.0	43.2	43.8	36.8	+0.2	+1.0	+0.2	+0.4	+0.1	+0.4	33.2	39.2	40.0	35.2	+0.3	+0.4	+0.2	+0.4
24	42.2	25.2	...	...	...	...	+0.1	+0.9	...	...	...	...	...	...	...	...	...	...	...	...
25	41.9	31.1	31.2	38.6	40.2	34.1	+0.1	-0.2	-0.3	0.0	+0.2	+0.9	30.2	35.3	35.6	32.2	-0.1	0.0	+0.3	+0.5
26	44.0	31.2	40.5	42.6	42.8	39.8	+0.1	+0.8	+0.2	-0.1	0.0	+0.1	39.0	40.0	40.8	39.0	+0.3	+0.2	0.0	+0.1
27	45.2	38.6	39.0	43.4	45.2	44.8	-0.8	0.0	+0.2	-0.2	-0.1	-0.1	39.0	42.1	43.1	42.1	+0.3	-0.2	-0.1	-0.2
28	45.7	38.8	43.3	45.1	42.8	38.8	0.0	+0.4	-0.1	-0.1	0.0	+0.4	41.1	40.7	38.2	35.1	-0.2	-0.1	0.0	+0.2
29	43.1	32.6	35.0	39.3	41.0	40.0	-0.7	+0.4	+0.3	+0.5	+0.3	+0.6	33.0	36.2	38.4	38.5	+0.4	+0.5	+0.1	+0.5
30	46.6	38.3	43.1	45.6	46.6	44.2	-0.1	0.0	0.0	-0.1	0.0	-0.1	40.9	42.6	43.4	41.2	0.0	-0.1	-0.2	-0.1
Means	46.8	36.4	41.0	44.3	45.1	41.3	0.0	+0.3	0.0	0.0	0.0	+0.1	39.1	41.3	42.0	39.3	+0.1	0.0	+0.1	+0.1

READINGS of THERMOMETERS in a STEVENSON'S SCREEN in the MAGNETIC PAVILION ENCLOSURE—concluded.

DECEMBER.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h	Maximum.	Minimum.	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h	9 ^h	Noon.	15 ^h	21 ^h
1	48.2	41.1	...	...	...	...	+0.2	+0.6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	51.5	44.8	47.0	50.9	51.3	47.9	-0.2	+0.6	+0.5	+0.2	+0.2	+0.2	44.2	47.2	48.5	46.6	+0.5	+0.3	+0.2	+0.3	...	...	...	...
3	48.5	41.8	46.0	48.4	48.5	41.8	+0.1	+0.6	-0.4	0.0	+0.9	+0.4	43.0	43.3	43.4	40.1	+0.4	0.0	+0.6	+0.7	...	...	...	...
4	42.0	36.6	39.0	37.8	41.0	39.1	+0.1	+0.8	+0.2	+0.1	+0.3	+0.1	38.1	37.4	39.9	38.2	+0.1	+0.5	+0.2	0.0	...	...	...	...
5	44.2	32.1	39.7	44.0	43.4	42.0	-0.7	+1.3	+0.4	-0.2	-0.1	+0.2	38.5	41.8	40.1	40.1	+0.2	-0.2	+0.3	+0.4	...	...	...	...
6	47.0	34.7	35.9	44.1	45.2	46.0	+1.2	+0.4	+0.3	+0.6	+0.3	+0.2	35.5	40.9	42.0	43.7	+0.3	+0.8	+0.4	+0.4	...	...	...	...
7	55.0	45.9	53.1	55.0	54.9	52.4	-0.2	+0.3	-0.2	+0.1	+0.1	-0.2	51.6	53.0	53.5	50.3	0.0	+0.2	+0.2	0.0	...	...	...	...
8	54.9	47.2	...	...	...	...	+0.2	+0.6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	47.0	39.3	42.5	44.7	42.6	39.3	-0.2	+0.4	-0.1	0.0	0.0	+0.2	40.6	41.9	40.0	36.0	+0.2	+0.4	+0.4	+0.3	...	...	...	...
10	41.0	33.2	35.5	40.0	40.9	37.2	-0.1	+0.1	+0.3	+0.1	+0.3	+0.4	34.0	37.3	38.0	36.5	+0.3	0.0	+0.3	+0.5	...	...	...	...
11	41.6	34.8	37.4	40.0	41.0	35.0	-0.2	+0.6	0.0	-0.1	+0.2	+0.3	35.6	37.8	38.4	34.6	0.0	-0.2	+0.2	+0.8	...	...	...	...
12	46.0	32.1	37.7	41.1	44.0	45.7	0.0	+0.7	0.0	-0.3	0.0	0.0	37.0	40.9	43.3	45.2	+0.3	+0.2	0.0	+0.1	...	...	...	...
13	45.8	41.4	42.9	42.6	42.7	41.6	-0.1	+0.2	0.0	-0.1	0.0	-0.1	42.2	42.0	42.4	41.1	-0.1	+0.2	0.0	-0.2	...	...	...	...
14	41.7	38.0	40.4	40.4	39.5	38.7	-0.2	0.0	-0.2	-0.2	0.0	+0.1	39.0	39.1	38.8	37.1	+0.2	+0.2	+0.1	+0.2	...	...	...	...
15	38.8	31.3	...	...	...	...	0.0	+0.2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	40.5	29.7	34.1	38.4	38.0	29.7	0.0	+0.6	+0.1	-0.2	-0.1	+0.4	33.2	36.1	35.1	29.3	+0.2	+0.3	+0.1	+0.3	...	...	...	...
17	39.3	25.2	28.1	39.0	37.9	38.2	+0.3	+0.4	+0.1	+0.5	+0.4	-0.3	27.9	35.9	35.2	36.5	+0.3	+0.2	+0.3	-0.1	...	...	...	...
18	40.7	33.0	33.3	39.0	39.9	34.3	-0.1	0.0	+0.2	+0.2	+0.4	+0.5	32.2	35.9	36.9	33.1	+0.1	+0.2	+0.4	+0.4	...	...	...	...
19	40.9	30.2	31.0	39.0	38.7	33.6	+1.0	+0.6	0.0	+1.0	+0.4	0.0	30.2	36.0	35.1	32.3	0.0	+0.6	+0.3	+0.5	...	...	...	...
20	34.3	25.6	27.0	30.0	32.9	33.9	+0.2	+0.3	-0.3	-0.1	+0.2	+0.1	26.6	29.3	32.1	32.6	-0.3	-0.2	+0.4	0.0	...	...	...	...
21	34.2	28.8	33.3	31.4	31.5	28.8	+0.1	+0.4	-0.2	-0.2	-0.1	0.0	32.3	31.0	30.7	28.2	-0.1	+0.2	0.0	0.0	...	...	...	...
22	35.2	26.9	...	...	...	...	-0.5	-0.2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23	39.0	25.8	26.0	37.1	37.8	35.9	-0.4	-0.4	-0.2	+1.4	+0.3	+0.1	25.7	33.5	35.8	35.1	-0.1	+1.1	+0.3	+0.3	...	...	...	...
24	43.0	35.2	38.9	42.6	40.4	37.0	+0.1	0.0	+0.2	+0.1	-0.2	+0.2	37.0	40.0	39.0	36.6	+0.4	+0.3	-0.1	0.0	...	...	...	...
25	40.6	32.3	...	...	...	...	+0.4	+0.8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
26	42.1	34.3	...	...	...	...	0.0	+0.3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27	39.0	32.0	33.7	38.0	38.1	33.5	+1.0	+0.8	-0.1	+0.2	+0.4	+1.2	33.0	36.0	36.0	32.1	+0.2	+0.3	+0.7	+0.5	...	...	...	...
28	44.2	29.5	39.6	41.2	41.9	44.2	-0.2	+0.8	+0.1	0.0	+0.1	-0.1	38.0	40.0	41.0	43.6	0.0	0.0	+0.2	0.0	...	...	...	...
29	48.9	43.0	...	...	...	...	+0.4	+0.6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	55.8	42.0	52.1	53.5	54.5	54.4	+0.4	+0.5	-0.2	-0.1	0.0	-0.1	51.0	52.0	52.1	52.1	0.0	+0.2	-0.1	0.0	...	...	...	...
31	54.6	51.2	53.8	52.0	52.0	51.3	-0.1	+0.2	0.0	-0.1	0.0	-0.4	52.0	51.5	50.7	50.6	+0.2	-0.1	-0.3	+0.1	...	...	...	...
Means	44.0	35.5	38.7	42.1	42.4	40.1	+0.1	+0.4	0.0	+0.1	+0.2	+0.1	37.4	40.0	40.3	38.8	+0.1	+0.2	+0.2	+0.2	...	...	...	...

EARTH TEMPERATURE,

(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.

1901.												
Days of the Month	January.	February.	March.	April.	May	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	53°02	52°42	51°68	50°70	49°85	49°45	49°65	50°50	51°66	52°73	53°38	53°56
2	53°00	52°40	51°65	50°65	49°85	49°45	49°69	50°56	51°70	52°74	53°36	53°59
3	52°99	52°37	51°62	50°65	49°83	49°45	49°70	50°60	51°72	52°75	53°35	53°55
4	52°97	52°33	51°58	50°60	49°80	49°45	49°75	50°62	51°76	52°80	53°38	53°51
5	52°92	52°30	51°57	50°56	49°75	49°45	49°78	50°65	51°80	52°82	53°40	53°50
6	52°91	52°29	51°52	50°55	49°75	49°46	49°81	50°68	51°84	52°82	53°40	53°48
7	52°89	52°25	51°50	50°52	49°70	49°45	49°82	50°72	51°90	52°84	53°42	53°48
8	52°87	52°24	51°46	50°47	49°70	49°45	49°85	50°78	51°90	52°87	53°45	53°49
9	52°87	52°22	51°42	50°46	49°65	49°47	49°86	50°82	51°96	52°90	53°47	53°43
10	52°88	52°21	51°39	50°45	49°65	49°45	49°89	50°86	52°01	52°94	53°51	53°44
11	52°87	52°16	51°35	50°40	49°65	49°45	49°95	50°87	52°04	52°95	53°50	53°44
12	52°84	52°13	51°33	50°35	49°65	49°45	49°96	50°92	52°07	52°98	53°53	53°42
13	52°83	52°10	51°28	50°30	49°60	49°45	49°96	50°93	52°10	53°00	53°54	53°43
14	52°79	52°05	51°26	50°31	49°60	49°45	50°00	51°00	52°14	53°05	53°50	53°40
15	52°76	52°05	51°23	50°25	49°60	49°45	50°03	51°03	52°17	53°10	53°47	53°37
16	52°76	52°02	51°19	50°25	49°55	49°45	50°04	51°07	52°21	53°09	53°49	53°35
17	52°76	52°00	51°17	50°20	49°55	49°45	50°10	51°10	52°24	53°13	53°57	53°30
18	52°73	51°97	51°16	50°20	49°55	49°50	50°12	51°13	52°25	53°15	53°58	53°30
19	52°71	51°94	51°09	50°15	49°56	49°50	50°16	51°15	52°30	53°14	53°55	53°29
20	52°69	51°90	51°06	50°16	49°55	49°51	50°18	51°20	52°34	53°17	53°56	53°27
21	52°70	51°87	51°03	50°14	49°53	49°53	50°21	51°25	52°35	53°18	53°57	53°27
22	52°68	51°87	51°01	50°10	49°52	49°55	50°22	51°25	52°41	53°20	53°55	53°25
23	52°63	51°84	50°96	50°10	49°50	49°57	50°24	51°30	52°46	53°20	53°53	53°25
24	52°61	51°82	50°91	50°05	49°50	49°55	50°27	51°35	52°51	53°21	53°50	53°23
25	52°60	51°79	50°85	50°05	49°50	49°59	50°30	51°34	52°54	53°25	53°52	53°25
26	52°57	51°76	50°82	49°98	49°45	49°61	50°33	51°40	52°55	53°27	53°52	53°20
27	52°57	51°73	50°80	49°95	49°47	49°60	50°36	51°45	52°60	53°31	53°54	53°20
28	52°51	51°70	50°80	49°89	49°45	49°65	50°40	51°45	52°60	53°36	53°55	53°16
29	52°48		50°78	49°85	49°45	49°65	50°40	51°52	52°65	53°36	53°55	53°14
30	52°45		50°75	49°85	49°45	49°65	50°45	51°55	52°68	53°35	53°54	53°16
31	52°43		50°71		49°45		50°50	51°60		53°37		53°13
Means	52°75	52°06	51°19	50°27	49°60	49°50	50°06	51°05	52°18	53°07	53°49	53°35

The mean of the twelve monthly values is 51°55.

(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.

1901.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	51°91	49°65	47°60	46°51	46°52	48°67	51°87	55°16	57°23	57°30	56°13	53°58
2	51°85	49°59	47°51	46°48	46°57	48°74	52°02	55°28	57°17	57°22	56°08	53°48
3	51°80	49°53	47°43	46°44	46°67	48°85	52°10	55°36	57°10	57°23	55°91	53°38
4	51°73	49°46	47°37	46°40	46°71	48°96	52°20	55°43	57°14	57°19	55°86	53°23
5	51°63	49°41	47°32	46°37	46°78	49°07	52°34	55°45	57°16	57°20	55°75	53°17
6	51°59	49°35	47°27	46°32	46°78	49°20	52°41	55°55	57°22	57°11	55°69	53°04
7	51°52	49°29	47°21	46°29	46°91	49°28	52°49	55°65	57°27	57°09	55°65	52°98
8	51°46	49°23	47°16	46°26	46°97	49°39	52°60	55°76	57°27	57°09	55°61	52°91
9	51°42	49°18	47°09	46°18	47°01	49°56	52°70	55°87	57°32	57°09	55°54	52°75
10	51°39	49°12	47°03	46°19	47°10	49°61	52°82	55°92	57°29	57°10	55°50	52°63

(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.

1901.													
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
d	°	°	°	°	°	°	°	°	°	°	°	°	°
11	51°34	49°02	47°02	46°16	47°18	49°73	52°93	55°94	57°25	57°08	55°41	52°58	
12	51°23	48°94	46°99	46°16	47°26	49°83	52°99	56°01	57°29	57°13	55°35	52°46	
13	51°18	48°88	46°96	46°14	47°32	49°94	53°04	56°04	57°30	57°06	55°23	52°37	
14	51°08	48°78	46°93	46°16	47°39	50°08	53°14	56°16	37°31	57°06	55°06	52°26	
15	50°97	48°71	46°89	46°13	47°48	50°20	53°33	56°19	57°29	57°00	54°96	52°14	
16	50°90	48°62	46°87	46°17	47°53	50°29	53°43	56°26	57°30	56°99	54°87	52°09	
17	50°82	48°58	46°86	46°17	47°58	50°42	53°57	56°31	57°29	56°98	54°74	52°00	
18	50°72	48°50	46°83	46°18	47°65	50°54	53°70	56°41	57°30	56°95	54°76	51°91	
19	50°63	48°40	46°81	46°21	47°74	50°68	53°81	56°50	57°30	56°87	54°70	51°88	
20	50°55	48°29	46°79	46°26	47°79	50°80	53°90	56°50	57°31	56°81	54°63	51°74	
21	50°49	48°22	46°75	46°26	47°86	50°95	54°02	56°57	57°30	56°75	54°54	51°68	
22	50°40	48°17	46°74	46°26	47°92	51°06	54°05	56°62	57°33	56°70	54°41	51°54	
23	50°28	48°09	46°72	46°29	47°98	51°17	54°12	56°63	57°32	56°62	54°29	51°50	
24	50°21	48°00	46°70	46°29	48°06	51°23	54°22	56°71	57°34	56°62	54°13	51°46	
25	50°13	47°91	46°58	46°30	48°14	51°38	54°37	56°79	57°31	56°50	54°09	51°42	
26	50°06	47°83	46°58	46°32	48°16	51°46	54°45	56°74	57°31	56°47	54°00	51°31	
27	50°01	47°76	46°60	46°36	48°27	51°55	54°58	56°80	57°30	56°47	53°90	51°20	
28	49°90	47°69	46°60	46°39	48°36	51°63	54°80	56°81	57°30	56°46	53°80	51°10	
29	49°80		46°60	46°44	48°44	51°72	54°87	56°89	57°25	56°37	53°70	50°95	
30	49°75		46°57	46°48	48°48	51°80	54°96	56°98	57°26	56°29	53°64	50°94	
31	49°70		46°54		48°56		55°10	57°00		56°21		50°81	
Means	50°85	48°72	46°93	46°29	47°52	50°26	53°45	56°20	57°27	56°87	54°93	52°14	

The mean of the twelve monthly values is 51°79.

(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.

1901.													
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
d	°	°	°	°	°	°	°	°	°	°	°	°	°
1	49°95	47°19	44°17	44°13	47°91	52°32	57°01	60°98	61°25	59°57	55°30	50°59	
2	49°88	47°06	44°25	44°08	48°00	52°48	57°17	61°01	61°19	59°48	55°22	50°42	
3	49°79	46°91	44°33	44°10	48°17	52°63	57°32	61°03	61°11	59°41	55°06	50°32	
4	49°69	46°70	44°43	44°13	48°26	53°00	57°49	61°07	61°06	59°33	54°89	50°19	
5	49°54	46°55	44°51	44°20	48°41	53°46	57°68	61°07	60°92	59°31	54°70	50°11	
6	49°42	46°40	44°59	44°34	48°50	53°67	57°76	61°10	60°79	59°24	54°50	50°02	
7	49°28	46°26	44°68	44°49	48°69	53°82	57°88	61°22	60°71	59°13	54°30	50°00	
8	49°10	46°11	44°72	44°59	48°81	54°02	58°09	61°26	60°60	59°08	54°10	49°92	
9	48°90	45°97	44°78	44°72	49°03	54°32	58°26	61°28	60°54	58°90	53°89	49°80	
10	48°69	45°83	44°82	44°85	49°12	54°47	58°43	61°28	60°47	58°71	53°72	49°80	
11	48°45	45°70	44°87	45°04	49°17	54°63	58°59	61°27	60°34	58°53	53°50	49°70	
12	48°21	45°59	44°89	45°20	49°18	54°82	58°78	61°28	60°38	58°42	53°41	49°58	
13	48°03	45°51	44°89	45°33	49°20	55°01	58°81	61°39	60°37	58°20	53°30	49°41	
14	47°90	45°41	44°89	45°47	49°24	55°25	58°95	61°42	60°37	58°04	53°12	49°34	
15	47°79	45°31	44°89	45°54	49°31	55°38	59°26	61°42	60°31	57°90	53°08	49°22	

(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.

1901.												
Days of the Month	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
16	47°71	45°20	44°88	45°60	49°40	55°46	59°48	61°46	60°30	57°80	53°00	49°10
17	47°62	45°06	44°89	45°68	49°50	55°50	59°65	61°50	60°21	57°69	52°82	49°04
18	47°50	44°91	44°89	45°73	49°70	55°57	59°80	61°54	60°16	57°51	52°71	48°90
19	47°40	44°74	44°90	45°77	49°86	55°68	59°95	61°59	60°09	57°31	52°47	48°80
20	47°30	44°61	44°91	45°82	49°98	55°69	60°10	61°58	60°05	57°20	52°21	48°61
21	47°28	44°50	44°91	45°90	50°12	55°81	60°28	61°50	59°95	57°11	51°99	48°44
22	47°27	44°36	44°92	46°00	50°29	55°86	60°33	61°53	59°88	57°00	51°80	48°19
23	47°23	44°27	44°88	46°16	50°42	55°89	60°49	61°51	59°83	56°83	51°69	48°08
24	47°30	44°17	44°84	46°34	50°62	55°94	60°67	61°57	59°80	56°71	51°62	47°77
25	47°35	44°10	44°79	46°59	50°82	56°14	60°82	61°63	59°73	56°46	51°57	47°53
26	47°37	44°07	44°72	46°86	50°94	56°31	60°96	61°50	59°70	56°30	51°45	47°24
27	47°41	44°08	44°67	47°12	51°20	56°53	61°19	61°53	59°70	56°15	51°25	47°08
28	47°38	44°10	44°61	47°40	51°44	56°62	61°10	61°56	59°69	56°02	51°02	47°03
29	47°34		44°51	47°61	51°70	56°68	61°11	61°57	59°60	55°79	50°80	46°91
30	47°32		44°40	47°76	51°87	56°79	61°08	61°56	59°54	55°58	50°76	46°85
31	47°29		44°23		52°10		61°02	61°41		55°42		46°67
Means	48°15	45°38	44°70	45°55	49°71	54°99	59°34	61°37	60°29	57°75	52°97	48°86

The mean of the twelve monthly values is 52°42

(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.

1901.												
Days of the Month	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	46°51	42°70	41°09	40°35	47°73	55°75	60°00	63°30	61°71	59°26	52°37	45°79
2	46°24	42°30	41°39	40°76	47°91	55°88	60°14	63°59	61°50	59°16	52°11	45°65
3	46°00	42°03	41°60	41°08	48°30	56°11	60°20	63°70	61°21	59°30	51°66	45°87
4	45°68	41°87	41°70	41°72	48°48	56°30	60°33	63°65	61°01	59°20	51°14	46°02
5	45°39	41°61	41°78	42°32	48°70	56°43	60°72	63°53	60°80	59°01	50°50	46°07
6	44°93	41°32	42°08	42°40	48°86	56°69	61°02	63°40	60°51	58°50	50°09	45°81
7	44°30	41°10	42°19	42°52	48°98	57°07	61°31	63°24	60°22	57°91	49°73	45°81
8	43°72	40°90	42°20	43°02	48°89	57°28	61°54	63°16	60°10	57°29	49°38	46°00
9	43°22	40°72	42°20	43°51	48°79	57°54	61°56	63°34	60°20	56°94	49°38	46°32
10	42°90	40°81	42°11	43°80	48°51	57°66	61°71	63°60	60°50	56°59	49°42	46°54
11	42°90	40°90	42°00	43°98	48°50	58°00	61°95	63°88	60°61	56°32	49°50	46°15
12	42°95	40°93	41°80	44°08	48°52	58°10	62°40	63°79	60°65	56°29	49°73	45°71
13	43°07	40°70	41°90	44°08	48°71	58°01	62°62	63°68	60°50	56°10	49°92	45°41
14	43°29	40°39	41°88	44°01	48°99	57°70	62°89	63°50	60°48	55°95	49°88	45°10
15	43°19	40°06	41°83	43°96	49°30	57°49	63°05	63°40	60°38	55°72	49°44	44°91
16	42°84	39°72	41°83	44°00	49°59	57°32	63°11	63°35	60°25	55°48	48°90	44°73
17	42°57	39°57	41°81	43°95	49°90	57°30	63°28	63°21	59°92	55°41	47°98	44°27
18	42°80	39°47	41°94	43°84	50°20	57°26	63°55	63°11	59°80	55°42	47°25	43°84
19	43°00	39°33	42°02	43°98	50°32	57°16	63°95	63°30	59°70	55°34	46°78	43°61
20	43°21	39°23	41°80	44°37	50°56	57°06	64°29	63°30	59°61	55°17	47°09	43°26

(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.

1901.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
21	43·42	39·16	41·80	44·83	50·97	57·32	64·64	63·40	59·40	54·72	47·56	42·73
22	43·78	38·99	41·63	45·39	51·25	57·70	64·79	63·39	59·32	54·36	47·79	42·52
23	44·20	39·08	41·43	46·17	51·51	58·20	64·86	63·30	59·57	53·80	47·98	42·33
24	44·31	39·33	41·43	46·82	51·95	58·62	64·62	63·15	59·63	53·70	47·57	42·09
25	44·26	39·70	41·13	47·41	52·30	58·79	64·40	63·22	59·65	53·20	47·11	42·01
26	44·20	40·08	40·46	47·80	52·59	58·83	63·90	63·08	59·64	53·10	47·00	41·96
27	44·12	40·40	40·40	47·96	53·05	58·90	63·56	63·03	59·60	52·62	46·66	41·82
28	44·19	40·73	40·37	47·92	53·30	59·10	63·20	62·50	59·32	52·31	46·09	41·83
29	44·04		40·08	47·82	53·90	59·41	63·03	62·00	59·30	52·15	45·88	41·62
30	43·60		39·82	47·77	54·50	59·70	63·01	61·70	59·23	52·32	45·90	42·00
31	43·11		39·97		55·30		63·18	61·57		52·48		42·50
Means	43·93	40·47	41·47	44·39	50·33	57·62	62·67	63·21	60·14	55·65	48·73	44·20

The mean of the twelve monthly values is 51°.07.

(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.

1901.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	41·4	36·0	44·1	42·4	51·0	62·0	62·2	66·1	61·8	60·3	48·8	45·4
2	40·6	37·2	43·0	42·3	50·0	60·4	64·1	67·1	59·1	60·3	48·1	48·0
3	40·4	36·2	42·0	46·7	51·9	60·6	63·9	65·3	59·1	59·0	44·0	45·8
4	40·8	35·0	41·1	44·9	51·4	59·3	64·5	67·4	59·2	58·2	43·0	46·1
5	36·0	35·6	45·7	42·2	51·0	61·7	66·5	62·7	58·1	54·6	42·6	42·5
6	35·3	36·0	42·8	42·9	48·0	63·2	67·2	62·3	58·7	54·2	41·2	39·9
7	34·7	35·1	42·1	47·2	49·6	66·3	67·5	63·6	62·4	50·4	41·0	44·4
8	34·4	36·0	41·2	47·6	49·0	65·8	65·0	66·8	61·0	51·3	47·0	44·0
9	35·8	37·8	40·3	47·8	49·3	67·5	67·3	67·2	63·5	51·8	47·0	42·8
10	39·8	38·0	39·3	45·7	47·8	62·9	67·4	69·2	61·3	52·3	49·0	41·0
11	40·2	38·0	38·6	45·6	49·4	61·0	68·5	65·1	60·1	54·0	49·0	39·2
12	40·6	34·5	41·1	44·0	50·8	59·0	70·3	63·8	59·8	54·9	48·9	38·9
13	38·3	35·0	40·1	43·0	51·6	56·3	67·1	67·7	59·9	53·0	47·2	42·5
14	38·5	32·3	40·9	44·3	52·0	58·0	64·2	65·9	60·0	53·0	43·0	42·0
15	36·2	34·0	40·2	44·8	54·0	58·0	66·2	64·2	59·2	51·8	42·9	35·8
16	37·6	34·1	40·1	43·2	52·0	58·1	67·2	62·3	58·9	55·1	36·8	37·8
17	42·8	35·5	41·3	43·1	50·8	57·2	68·9	63·0	59·9	56·3	34·0	37·1
18	41·1	34·9	40·9	45·0	51·2	56·3	71·0	66·0	59·0	55·9	40·0	36·2
19	41·1	34·8	40·1	46·3	57·5	58·1	71·0	67·0	57·0	57·1	47·0	35·4
20	41·3	34·6	39·6	50·1	54·0	58·2	71·4	65·0	58·1	48·9	48·8	35·3
21	45·2	33·6	39·2	52·9	54·0	63·4	72·4	65·0	60·6	45·8	48·0	33·0
22	46·1	37·1	38·6	54·0	56·0	64·0	67·8	64·0	62·4	50·0	46·0	36·0
23	42·2	38·5	39·0	54·8	56·0	63·2	64·3	64·0	60·9	47·0	42·0	35·2
24	39·6	40·0	38·6	54·0	56·8	60·6	63·3	64·8	60·2	50·0	38·0	39·1
25	42·2	41·3	36·0	54·0	58·0	62·1	65·0	65·4	60·2	48·0	37·8	38·4

(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.

1901.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	°	°	°	°	°	°	°	°	°	°	°	°
26	41°0	41°2	35°5	51°0	54°9	62°3	62°5	62°0	58°7	45°0	41°0	37°6
27	46°2	42°2	35°0	48°0	57°3	63°0	61°2	59°0	58°0	50°9	41°9	37°2
28	40°9	42°2	34°9	47°3	59°8	63°7	63°0	58°0	59°2	56°6	43°9	38°1
29	37°4		35°2	47°9	63°9	65°0	65°0	58°0	58°0	57°0	39°7	45°1
30	37°4		39°9	49°5	62°9	63°0	66°1	61°3	58°2	57°1	43°3	45°0
31	36°3		42°2		61°0		67°0	63°6		50°8		48°2
Means	39°7	36°7	40°0	47°1	53°9	61°2	66°4	64°3	59°7	53°2	43°7	40°4

The mean of the twelve monthly values is 50°52.

(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.

1901.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	°	°	°	°	°	°	°	°	°	°	°	°
2	38°9	34°2	49°4	50°2	60°6	66°7	64°0	71°4	63°4	70°4	49°3	46°1
3	39°6	40°6	49°9	51°9	51°3	65°5	68°8	74°1	61°0	63°4	49°0	48°9
4	39°3	37°3	45°8	54°1	60°4	68°1	71°1	70°8	62°2	62°2	39°0	46°4
5	38°4	34°9	44°3	46°8	57°3	67°5	72°2	69°0	63°7	57°1	37°5	36°9
6	30°3	33°3	51°1	43°4	54°3	71°4	77°9	63°0	60°3	55°3	37°0	43°2
7	30°8	36°0	42°7	47°0	48°8	68°3	73°1	63°5	60°6	55°6	35°3	40°9
8	29°0	33°8	45°2	54°8	54°9	67°0	67°6	70°3	67°7	49°8	41°0	50°1
9	30°6	37°7	42°2	53°2	52°0	68°8	73°3	74°8	67°5	52°0	48°1	54°9
10	35°8	39°1	40°6	52°8	50°9	76°1	73°0	77°5	69°9	57°0	46°4	44°0
11	44°2	40°4	40°3	47°8	49°9	64°0	78°1	78°5	65°7	56°1	50°1	39°2
12	43°1	36°9	40°2	46°2	55°0	65°3	80°6	70°6	60°0	54°0	52°4	39°3
13	39°3	33°2	43°7	45°2	58°7	60°9	84°3	68°3	61°9	59°8	49°9	40°4
14	42°0	34°8	40°3	43°3	58°9	58°0	68°2	71°2	61°8	53°9	48°0	43°3
15	38°0	28°4	42°8	47°1	65°8	63°9	64°7	70°8	64°2	54°3	39°8	40°2
16	35°1	32°9	40°7	48°9	63°8	63°2	73°9	66°8	61°8	53°4	38°8	36°0
17	41°6	37°1	39°6	45°1	56°2	60°6	79°8	67°2	62°7	56°3	30°8	38°0
18	46°9	36°3	45°8	49°3	51°3	58°9	81°0	71°2	62°2	58°1	32°8	35°3
19	44°4	35°2	40°6	49°2	58°3	59°2	83°5	78°8	59°7	56°6	44°4	38°2
20	44°4	33°6	40°2	60°9	65°3	64°2	84°6	78°4	61°0	58°2	51°1	38°3
21	43°0	34°3	38°6	63°8	63°3	60°4	83°2	70°9	66°4	50°4	52°8	30°0
22	50°3	31°6	40°8	67°3	62°2	73°2	83°0	72°8	63°5	47°3	52°3	31°9
23	48°3	40°7	39°7	70°1	64°6	71°8	68°7	73°0	66°0	50°4	46°1	36°0
24	40°3	42°4	41°1	71°3	63°9	65°1	62°5	73°6	65°3	48°8	39°1	36°0
25	42°9	43°7	40°3	67°1	66°3	63°5	62°0	70°1	65°5	51°6	36°0	40°3
26	44°3	45°4	34°0	61°3	69°4	68°1	69°2	77°1	65°3	47°0	34°2	37°6
27	41°8	44°2	36°2	55°1	55°0	70°2	63°0	60°9	61°8	42°8	41°6	38°4
28	52°3	45°3	35°8	51°2	68°0	72°2	62°5	61°4	59°5	51°8	42°0	34°9
29	39°8	46°2	35°7	50°3	73°7	71°2	68°6	58°2	63°4	57°2	44°0	41°2
30	35°5	40°3	56°1	81°4	73°5	74°4	62°7	70°9	54°8	37°6	37°6	45°2
31	36°2		44°7	59°0	69°0	72°9	74°0	68°2	63°5	54°2	44°7	52°6
Means	40°0	37°5	41°9	53°7	60°5	66°7	73°1	70°1	63°6	54°6	43°0	41°2

The mean of the twelve monthly values is 53°83.

ABSTRACT of the CHANGES of the DIRECTION of the WIND, as derived from the Records of OSLER'S ANEMOMETER in the Year 1901.

(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.)

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

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	From	To	Direct.	Retro-grade.	From	To	From	To	Direct.	Retro-grade.	From	To	From	To	Direct.	Retro-grade.		
				o	o					o	o					o	o		
January.		Jan.—cont.		February.															
d h	d h	d h	d h	d h	d h	d h	d h	d h	d h	d h	d h	d h	d h	d h	d h	d h	d h		
1. 3 ¹ ₄	1. 6 ¹ ₂	N.N.E.	S.W.	157 ¹ ₂	16. 3	16. 4	E.S.E.	S.E.	22 ¹ ₂	1. 18	1. 19 ¹ ₂	W.S.W.	S.W.	22 ¹ ₂	1. 18	1. 19 ¹ ₂	W.S.W.	S.W.	
1. 11 ³ ₄	1. 12 ¹ ₂	S.W.	S.S.W.	22 ¹ ₂	16. 9 ³ ₄	16. 10	S.E.	S.S.E.	22 ¹ ₂	2. 2	2. 2 ¹ ₂	S.W.	S.S.W.	22 ¹ ₂	2. 2	2. 2 ¹ ₂	S.W.	S.S.W.	
1. 16 ¹ ₂	1. 16 ³ ₄	S.S.W.	E.	247 ¹ ₂	16. 12 ¹ ₄	16. 13 ¹ ₂	S.S.E.	S.	22 ¹ ₂	2. 4 ¹ ₂	2. 5	S.S.W.	S.	22 ¹ ₂	2. 4 ¹ ₂	2. 5	S.S.W.	S.	
1. 18 ¹ ₄	1. 18 ¹ ₂	E.	N.N.W.	112 ¹ ₂	18. 0	18. 0 ¹ ₄	S.	N.E.	22 ¹ ₂	2. 15	2. 17	S.	E.S.E.	22 ¹ ₂	67 ¹ ₂	2. 15	2. 17	S.	E.S.E.
2. 1	2. 1 ³ ₄	N.N.W.	W.	67 ¹ ₂	18. 1 ³ ₄	18. 2	N.E.	S.W.	180	3. 1	3. 1 ¹ ₂	E.S.E.	E.	22 ¹ ₂	22 ¹ ₂	3. 1	3. 1 ¹ ₂	E.S.E.	E.
2. 3 ¹ ₂	2. 3 ³ ₄	W.	S.W.	45	18. 3 ² ₃	18. 3 ⁴	S.W.	S.	45	3. 5 ¹ ₂	3. 6	E.	E.N.E.	22 ¹ ₂	22 ¹ ₂	3. 5 ¹ ₂	3. 6	E.	E.N.E.
2. 9	2. 9 ¹ ₂	S.W.	W.S.W.	22 ¹ ₂	18. 9 ² ₃	18. 10	S.	S.S.W.	22 ¹ ₂	3. 11 ² ₃	3. 12	E.N.E.	N.E.	22 ¹ ₂	22 ¹ ₂	3. 11 ² ₃	3. 12	E.N.E.	N.E.
2. 21	2. 21 ¹ ₄	W.S.W.	S.W.	22 ¹ ₂	18. 22 ¹ ₂	18. 23	S.S.W.	S.	22 ¹ ₂	4. 2	4. 2 ¹ ₂	N.E.	N.N.W.	67 ¹ ₂	67 ¹ ₂	4. 2	4. 2 ¹ ₂	N.E.	N.N.W.
3. 3	3. 3 ¹ ₂	S.W.	W.S.W.	22 ¹ ₂	19. 12	19. 13 ¹ ₂	S.	S.S.W.	22 ¹ ₂	4. 18	4. 19	N.N.W.	S.W.	112 ¹ ₂	112 ¹ ₂	4. 18	4. 19	N.N.W.	S.W.
3. 9 ¹ ₄	3. 10	W.S.W.	N.N.E.	135	19. 18	19. 18 ²	S.S.W.	S.W.	22 ¹ ₂	4. 20 ³ ₄	5. 0 ¹ ₂	S.	E.N.E.	45	45	4. 20 ³ ₄	5. 0 ¹ ₂	S.	E.N.E.
3. 11 ³ ₄	3. 12	N.N.E.	N.	22 ¹ ₂	19. 20 ¹ ₂	19. 22	S.W.	W.	45	5. 3	5. 4 ¹ ₂	E.N.E.	N.N.E.	45	45	5. 3	5. 4 ¹ ₂	E.N.E.	N.N.E.
3. 14	3. 14 ¹ ₂	N.	N.N.E.	22 ¹ ₂	20. 5	20. 5 ¹ ₂	W.	W.S.W.	22 ¹ ₂	5. 6 ¹ ₂	5. 7	N.N.E.	N.	22 ¹ ₂	22 ¹ ₂	5. 6 ¹ ₂	5. 7	N.N.E.	N.
3. 17 ¹ ₄	3. 17 ¹ ₂	N.N.E.	N.	22 ¹ ₂	21. 7	21. 7 ¹ ₂	W.S.W.	S.W.	22 ¹ ₂	6. 9 ² ₃	6. 10	N.	N.N.E.	22 ¹ ₂	22 ¹ ₂	6. 9 ² ₃	6. 10	N.	N.N.E.
3. 23	4. 0	N.	N.N.E.	22 ¹ ₂	21. 15 ¹ ₂	21. 16	S.W.	W.S.W.	22 ¹ ₂	6. 15 ² ₃	6. 16	N.N.E.	N.	22 ¹ ₂	22 ¹ ₂	6. 15 ² ₃	6. 16	N.N.E.	N.
4. 5 ¹ ₂	4. 6 ¹ ₂	N.N.E.	S.	157 ¹ ₂	22. 12 ¹ ₂	22. 12 ¹ ₂	W.S.W.	W.	22 ¹ ₂	7. 5 ² ₃	7. 6	N.	N.N.W.	22 ¹ ₂	22 ¹ ₂	7. 5 ² ₃	7. 6	N.	N.N.W.
4. 11	4. 11 ¹ ₄	S.	S.E.	45	22. 22 ¹ ₂	22. 23 ¹ ₂	W.	N.	90	7. 10	7. 10 ¹ ₄	N.N.W.	S.W.	112 ¹ ₂	112 ¹ ₂	7. 10	7. 10 ¹ ₄	N.N.W.	S.W.
4. 16 ¹ ₂	4. 16 ¹ ₂	S.E.	E.	45	23. 5 ² ₃	23. 6	N.	N.E.	45	7. 10 ³ ₄	7. 11 ¹ ₂	S.W.	N.W.	90	90	7. 10 ³ ₄	7. 11 ¹ ₂	S.W.	N.W.
4. 18 ³ ₄	4. 19	E.	E.N.E.	22 ¹ ₂	23. 9	23. 11 ¹ ₄	N.E.	S.E.	90	7. 13 ⁴ ₅	7. 13 ¹ ₂	N.W.	W.N.W.	22 ¹ ₂	22 ¹ ₂	7. 13 ⁴ ₅	7. 13 ¹ ₂	N.W.	W.N.W.
4. 20 ³ ₄	4. 21 ¹ ₄	E.N.E.	N.E.	22 ¹ ₂	23. 12 ¹ ₂	23. 13	S.E.	E.N.E.	67 ¹ ₂	7. 16	7. 16 ⁴ ₅	W.N.W.	N.W.	22 ¹ ₂	22 ¹ ₂	7. 16	7. 16 ⁴ ₅	W.N.W.	N.W.
5. 13 ¹ ₄	5. 14	N.E.	E.N.E.	22 ¹ ₂	23. 14 ¹ ₂	23. 16	E.N.E.	E.S.E.	45	7. 18 ⁴ ₅	7. 18 ¹ ₂	N.W.	N.N.W.	22 ¹ ₂	22 ¹ ₂	7. 18 ⁴ ₅	7. 18 ¹ ₂	N.W.	N.N.W.
6. 18 ³ ₄	6. 19 ³ ₄	E.N.E.	E.S.E.	45	24. 7	24. 7 ¹ ₂	E.S.E.	S.E.	90	7. 20 ⁴ ₅	7. 21 ¹ ₂	N.N.W.	S.W.	112 ¹ ₂	112 ¹ ₂	7. 20 ⁴ ₅	7. 21 ¹ ₂	N.N.W.	S.W.
7. 3 ¹ ₄	7. 3 ¹ ₂	E.S.E.	N.E.	67 ¹ ₂	24. 10	24. 12 ¹ ₂	S.E.	S.W.	22 ¹ ₂	8. 5 ⁴ ₅	8. 6	S.W.	S.	45	45	8. 5 ⁴ ₅	8. 6	S.W.	S.
7. 5	7. 5 ¹ ₂	N.E.	N.N.E.	22 ¹ ₂	25. 1 ² ₃	25. 2	S.W.	W.S.W.	22 ¹ ₂	8. 9 ² ₃	8. 10	S.	S.W.	22 ¹ ₂	22 ¹ ₂	8. 9 ² ₃	8. 10	S.	S.W.
7. 10	7. 10 ¹ ₂	N.N.E.	E.S.E.	90	26. 15	26. 15 ¹ ₂	W.S.W.	S.W.	22 ¹ ₂	9. 1 ² ₃	9. 2	S.W.	W.S.W.	22 ¹ ₂	22 ¹ ₂	9. 1 ² ₃	9. 2	S.W.	W.S.W.
7. 13 ³ ₄	7. 14	E.S.E.	E.	22 ¹ ₂	26. 18 ¹ ₂	26. 19 ¹ ₂	S.W.	W.S.W.	22 ¹ ₂	9. 10 ² ₃	9. 11	W.S.W.	W.	22 ¹ ₂	22 ¹ ₂	9. 10 ² ₃	9. 11	W.S.W.	W.
7. 17	7. 17 ¹ ₂	E.	E.S.E.	22 ¹ ₂	27. 15	27. 15 ¹ ₂	W.S.W.	W.	22 ¹ ₂	9. 13 ⁴ ₅	9. 13 ¹ ₂	W.	N.W.	45	45	9. 13 ⁴ ₅	9. 13 ¹ ₂	W.	N.W.
7. 22 ¹ ₂	7. 23	E.S.E.	E.	22 ¹ ₂	27. 18	27. 18 ¹ ₂	W.	W.N.W.	22 ¹ ₂	9. 17 ² ₃	9. 18	N.W.	N.N.W.	22 ¹ ₂	22 ¹ ₂	9. 17 ² ₃	9. 18	N.W.	N.N.W.
8. 2 ¹ ₂	8. 3	E.	E.N.E.	22 ¹ ₂	27. 21	27. 22	W.N.W.	W.	22 ¹ ₂	10. 5	10. 6	N.N.W.	N.	22 ¹ ₂	22 ¹ ₂	10. 5	10. 6	N.N.W.	N.
8. 5	8. 5 ¹ ₂	E.N.E.	E.	22 ¹ ₂	28. 9	28. 10 ¹ ₂	W.	W.S.W.	22 ¹ ₂	10. 17	10. 17 ¹ ₂	N.	N.N.W.	22 ¹ ₂	22 ¹ ₂	10. 17	10. 17 ¹ ₂	N.	N.N.W.
8. 12	8. 12 ¹ ₄	E.	E.S.E.	22 ¹ ₂	28. 20 ¹ ₂	28. 22 ¹ ₂	W.S.W.	N.N.W.	90	10. 20 ⁴ ₅	10. 22	N.N.W.	W.S.W.	90	90	10. 20 ⁴ ₅	10. 22	N.N.W.	W.S.W.
8. 18 ¹ ₂	8. 19 ² ₃	E.S.E.	S.E.	22 ¹ ₂	29. 2 ¹ ₂	29. 4 ¹ ₂	N.N.W.	W.S.W.	45	10. 23 ⁴ ₅	10. 23 ¹ ₂	W.S.W.	W.	22 ¹ ₂	22 ¹ ₂	10. 23 ⁴ ₅	10. 23 ¹ ₂	W.S.W.	W.
8. 22 ³ ₄	8. 23	S.E.	S.	45	29. 9 ² ₃	29. 10 ¹ ₂	W.S.W.	W.N.W.	45	11. 4 ² ₃	11. 8 ¹ ₄	W.	N.N.E.	112 ¹ ₂	112 ¹ ₂	11. 4 ² ₃	11. 8 ¹ ₄	W.	N.N.E.
9. 2 ¹ ₄	9. 3 ¹ ₂	S.	E.N.E.	112 ¹ ₂	29. 19	29. 20 ¹ ₂	W.N.W.	W.S.W.	22 ¹ ₂	11. 12	11. 12 ¹ ₄	N.N.E.	N.E.	22 ¹ ₂	22 ¹ ₂	11. 12	11. 12 ¹ ₄	N.N.E.	N.E.
9. 9	9. 9 ¹ ₄	E.N.E.	E.	22 ¹ ₂	30. 15	30. 15 ¹ ₂	W.S.W.	W.	22 ¹ ₂	11. 13 ² ₃	11. 13 ¹ ₄	N.E.	N.N.E.	22 ¹ ₂	22 ¹ ₂	11. 13 ^{2</}			

ABSTRACT OF THE CHANGES OF THE DIRECTION OF THE WIND,

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

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	From	To	Direct.	Retro-grade.	From	To	From	To	Direct.	Retro-grade.	From	To	From	To	Direct.	Retro-grade.
Feb.—cont.																	
d h d h				o	o	March				o	o	March—cont.				o	o
15. 17 $\frac{1}{2}$ 15. 18 $\frac{1}{2}$	N.E.	E.S.E.	67 $\frac{1}{2}$			1. 8	1. 8 $\frac{3}{4}$	S.	S.W.	45		17. 14	17. 16	E.	N.E.		45
15. 20 $\frac{1}{2}$ 15. 22 $\frac{3}{4}$	E.S.E.	S.W.	112 $\frac{1}{2}$			2. 3 $\frac{1}{2}$	2. 4	S.W.	S.S.W.	22 $\frac{1}{2}$		19. 8 $\frac{1}{2}$	19. 9	N.E.	N.N.E.	22 $\frac{1}{2}$	
16. 0 $\frac{1}{4}$ 16. 0 $\frac{1}{2}$	S.W.	W.S.W.	22 $\frac{1}{2}$			2. 5 $\frac{3}{4}$	2. 7 $\frac{1}{2}$	S.S.W.	S.S.E.	45		19. 18	19. 18 $\frac{1}{2}$	N.N.E.	N.	22 $\frac{1}{2}$	
16. 4 16. 5	W.S.W.	W.	22 $\frac{1}{2}$			2. 9 $\frac{1}{2}$	2. 11 $\frac{1}{2}$	S.S.E.	S.S.W.	45		19. 22	19. 22 $\frac{1}{2}$	N.	N.N.E.	22 $\frac{1}{2}$	
16. 10 16. 10 $\frac{1}{2}$	W.	N.W.	45			2. 23	2. 23 $\frac{1}{2}$	S.S.W.	S.W.	22 $\frac{1}{2}$		19. 23 $\frac{3}{4}$	20. 0 $\frac{1}{2}$	N.N.E.	N.E.	22 $\frac{1}{2}$	
16. 13 $\frac{1}{4}$ 16. 13 $\frac{1}{2}$	N.W.	N.N.W.	22 $\frac{1}{2}$			3. 9	3. 9 $\frac{1}{2}$	S.W.	W.S.W.	22 $\frac{1}{2}$		21. 6	21. 7	N.E.	E.N.E.	22 $\frac{1}{2}$	
16. 15 16. 15 $\frac{1}{4}$	N.N.W.	N.W.	22 $\frac{1}{2}$			3. 14	3. 14 $\frac{1}{4}$	W.S.W.	W.N.W.	45		21. 22 $\frac{1}{2}$	22. 0 $\frac{1}{4}$	E.N.E.	N.N.E.	22 $\frac{1}{2}$	
16. 21 $\frac{1}{2}$ 16. 22	N.W.	N.N.W.	22 $\frac{1}{2}$			3. 18 $\frac{1}{2}$	3. 19 $\frac{1}{2}$	W.N.W.	W.S.W.	45		22. 12	22. 12 $\frac{1}{2}$	N.N.E.	N.E.	22 $\frac{1}{2}$	
17. 6 17. 7	N.N.W.	N.	22 $\frac{1}{2}$			4. 4	4. 4 $\frac{1}{2}$	W.S.W.	S.W.	22 $\frac{1}{2}$		22. 22	22. 23 $\frac{1}{2}$	N.E.	N.	45	
17. 13 17. 13 $\frac{1}{2}$	N.	N.N.E.	22 $\frac{1}{2}$			4. 5 $\frac{1}{2}$	4. 6	S.W.	S.S.W.	22 $\frac{1}{2}$		23. 10 $\frac{1}{2}$	23. 11 $\frac{1}{2}$	N.	N.N.E.	22 $\frac{1}{2}$	
18. 9 18. 10	N.N.E.	E.N.E.	45			4. 12	4. 13	S.S.W.	W.S.W.	45		23. 18 $\frac{1}{2}$	23. 19 $\frac{1}{2}$	N.N.E.	N.E.	22 $\frac{1}{2}$	
18. 12 18. 12 $\frac{1}{2}$	E.N.E.	N.E.	22 $\frac{1}{2}$			4. 19	4. 20	W.S.W.	S.W.	22 $\frac{1}{2}$		24. 4 $\frac{1}{4}$	24. 4 $\frac{1}{2}$	N.E.	N.N.E.	22 $\frac{1}{2}$	
18. 14 $\frac{3}{4}$ 18. 15	N.E.	N.	45			5. 13 $\frac{1}{2}$	5. 14 $\frac{1}{2}$	S.W.	W.S.W.	22 $\frac{1}{2}$		24. 7	24. 7 $\frac{1}{2}$	N.N.E.	N.	22 $\frac{1}{2}$	
18. 21 18. 21 $\frac{1}{4}$	N.	S.W.	135			5. 20	5. 20 $\frac{1}{2}$	W.S.W.	S.W.	22 $\frac{1}{2}$		24. 9	24. 9 $\frac{1}{2}$	N.	N.E.	45	
19. 14 $\frac{1}{4}$ 19. 15	S.W.	S.E.	90			6. 4	6. 4 $\frac{1}{2}$	S.W.	S.S.W.	22 $\frac{1}{2}$		24. 14 $\frac{1}{4}$	24. 14 $\frac{1}{2}$	N.E.	S.S.W.	202 $\frac{1}{2}$	
19. 17 $\frac{1}{2}$ 19. 19	S.E.	E.N.E.	67 $\frac{1}{2}$			6. 11 $\frac{1}{2}$	6. 12 $\frac{1}{2}$	S.S.W.	W.S.W.	45		24. 19	24. 19 $\frac{1}{2}$	S.S.W.	W.S.W.	45	
20. 11 $\frac{3}{4}$ 20. 12	E.N.E.	E.S.E.	45			6. 15	6. 15 $\frac{1}{2}$	W.S.W.	W.	22 $\frac{1}{2}$		24. 22 $\frac{1}{2}$	24. 23	W.S.W.	W.	22 $\frac{1}{2}$	
20. 14 20. 14 $\frac{1}{2}$	E.S.E.	E.	22 $\frac{1}{2}$			6. 18	6. 18 $\frac{1}{2}$	W.	W.S.W.	22 $\frac{1}{2}$		25. 7	25. 8 $\frac{1}{2}$	W.	N.E.	135	
20. 22 20. 22 $\frac{1}{2}$	E.	E.N.E.	22 $\frac{1}{2}$			7. 10	7. 10 $\frac{1}{2}$	W.S.W.	W.N.W.	45		25. 11 $\frac{3}{4}$	25. 12 $\frac{1}{2}$	N.E.	N.N.E.	22 $\frac{1}{2}$	
21. 1 21. 1 $\frac{1}{4}$	E.N.E.	N.E.	22 $\frac{1}{2}$			7. 14 $\frac{3}{4}$	7. 15 $\frac{1}{2}$	W.N.W.	W.S.W.	45		25. 21	25. 21 $\frac{1}{2}$	N.N.E.	N.	22 $\frac{1}{2}$	
21. 5 21. 5 $\frac{1}{4}$	N.E.	N.N.E.	22 $\frac{1}{2}$			7. 20 $\frac{1}{2}$	7. 21 $\frac{1}{4}$	W.S.W.	N.N.E.	135		26. 3	26. 3 $\frac{1}{2}$	N.	N.N.W.	22 $\frac{1}{2}$	
21. 7 21. 8	N.N.E.	N.	22 $\frac{1}{2}$			7. 23 $\frac{1}{2}$	7. 23 $\frac{1}{2}$	N.N.E.	N.	22 $\frac{1}{2}$		26. 11 $\frac{1}{2}$	26. 12	N.N.W.	N.W.	22 $\frac{1}{2}$	
21. 9 $\frac{1}{4}$ 21. 10	N.	W.	90			8. 3 $\frac{1}{2}$	8. 4	N.	N.N.E.	22 $\frac{1}{2}$		26. 19	26. 20	N.W.	W.S.W.	67 $\frac{1}{2}$	
21. 16 21. 16 $\frac{1}{4}$	W.	W.S.W.	22 $\frac{1}{2}$			8. 8 $\frac{1}{2}$	8. 9	N.N.E.	N.E.	22 $\frac{1}{2}$		27. 1 $\frac{1}{2}$	27. 2 $\frac{1}{2}$	W.S.W.	N.W.	67 $\frac{1}{2}$	
21. 18 $\frac{1}{4}$ 21. 20 $\frac{1}{2}$	W.S.W.	N.	112 $\frac{1}{2}$			8. 22	8. 22 $\frac{1}{2}$	N.E.	N.N.E.	22 $\frac{1}{2}$		27. 4 $\frac{1}{2}$	27. 4 $\frac{1}{2}$	N.W.	W.	45	
22. 11 $\frac{1}{2}$ 22. 13 $\frac{1}{2}$	N.	N.E.	45			9. 21	9. 23	N.N.E.	S.E.	112 $\frac{1}{2}$		27. 6 $\frac{1}{2}$	27. 6 $\frac{1}{2}$	W.	W.N.W.	22 $\frac{1}{2}$	
22. 16 $\frac{3}{4}$ 22. 19	N.E.	N.N.W.	67 $\frac{1}{2}$			10. 2 $\frac{1}{2}$	10. 3	S.E.	N.E.	67 $\frac{1}{2}$		27. 7 $\frac{1}{2}$	27. 8	W.N.W.	N.N.W.	45	
22. 22 22. 23	N.N.W.	W.S.W.	90			10. 8 $\frac{1}{2}$	10. 9 $\frac{1}{2}$	N.E.	E.S.E.	67 $\frac{1}{2}$		27. 15 $\frac{1}{2}$	27. 15 $\frac{3}{4}$	N.N.W.	N.	22 $\frac{1}{2}$	
23. 5 $\frac{1}{2}$ 23. 6	W.S.W.	W.	22 $\frac{1}{2}$			10. 11 $\frac{1}{2}$	10. 11 $\frac{1}{2}$	E.S.E.	E.	22 $\frac{1}{2}$		27. 18 $\frac{1}{2}$	27. 19	N.	N.N.W.	22 $\frac{1}{2}$	
23. 10 23. 10 $\frac{1}{2}$	W.	W.N.W.	22 $\frac{1}{2}$			10. 22	10. 22 $\frac{1}{2}$	E.	E.N.E.	22 $\frac{1}{2}$		27. 21 $\frac{1}{2}$	27. 22	N.N.W.	N.W.	22 $\frac{1}{2}$	
23. 14 23. 14 $\frac{1}{2}$	W.N.W.	N.W.	22 $\frac{1}{2}$			11. 0 $\frac{1}{2}$	11. 2	E.N.E.	N.N.E.	45		28. 1 $\frac{1}{2}$	28. 2	N.W.	W.N.W.	22 $\frac{1}{2}$	
23. 19 23. 19 $\frac{1}{2}$	N.W.	N.N.E.	67 $\frac{1}{2}$			11. 9 $\frac{1}{2}$	11. 10 $\frac{1}{2}$	N.N.E.	N.	22 $\frac{1}{2}$		28. 7	28. 7 $\frac{3}{4}$	W.N.W.	N.N.W.	45	
23. 22 23. 22 $\frac{1}{2}$	N.N.E.	N.	22 $\frac{1}{2}$			11. 21 $\frac{1}{2}$	11. 22	N.	N.N.W.	22 $\frac{1}{2}$		28. 8 $\frac{1}{2}$	28. 9	N.N.W.	N.	22 $\frac{1}{2}$	
24. 0 $\frac{1}{2}$ 24. 1	N.	S.S.W.	157 $\frac{1}{2}$			12. 2 $\frac{1}{2}$	12. 2 $\frac{1}{2}$	N.N.W.	N.	22 $\frac{1}{2}$		28. 14 $\frac{1}{2}$	28. 15 $\frac{1}{2}$	N.N.E.	W.S.W.	135	
24. 3 $\frac{1}{2}$ 24. 4	S.S.W.	S.W.	22 $\frac{1}{2}$			12. 7 $\frac{1}{2}$	12. 9	N.	W.S.W.	112 $\frac{1}{2}$		28. 15 $\frac{3}{4}$	28. 18 $\frac{1}{2}$	N.N.E.	W.S.W.	22 $\frac{1}{2}$	
24. 9 $\frac{1}{2}$ 24. 9 $\frac{1}{2}$	S.W.	W.S.W.	22 $\frac{1}{2}$			12. 12	12. 13	W.S.W.	N.N.W.	90		29. 5 $\frac{1}{2}$	29. 6	W.S.W.	S.W.	22 $\frac{1}{2}$	
24. 23 $\frac{1}{2}$ 25. 0	W.S.W.	S.W.	22 $\frac{1}{2}$			12. 15 $\frac{1}{2}$	12. 15 $\frac{3}{4}$	N.N.W.	N.	22 $\frac{1}{2}$		29. 16 $\frac{1}{2}$	29. 17	S.W.	S.S.W.	22 $\frac{1}{2}$	
25. 12 25. 12 $\frac{1}{4}$	S.W.	W.S.W.	22 $\frac{1}{2}$			12. 19	12. 19 $\frac{1}{2}$	N.	N.E.	45		30. 12 $\frac{1}{2}$	30. 13	S.S.W.	S.W.	22 $\frac{1}{2}$	
25. 15 $\frac{1}{2}$ 25. 16	W.S.W.	S.W.	22 $\frac{1}{2}$			13. 4	13. 4 $\frac{1}{2}$	N.E.	E.N.E.	22 $\frac{1}{2}$		31. 19 $\frac{1}{2}$	31. 20	S.W.	W.S.W.	22 $\frac{1}{2}$	
25. 20 $\frac{1}{2}$ 25. 21	S.W.	S.S.W.	22 $\frac{1}{2}$			13. 7	13. 7 $\frac{3}{4}$	N.E.	N.N.E.	45							
25. 23 $\frac{1}{2}$ 26. 0	S.S.W.	S.	22 $\frac{1}{2}$			13. 10 $\frac{1}{4}$	13. 10 $\frac{1}{2}$	N.N.E.	N.E.	22 $\frac{1}{2}$							
26. 19 $\frac{1}{2}$ 26. 20 $\frac{1}{2}$	S.	S.S.W.	22 $\frac{1}{2}$			13. 11 $\frac{1}{2}$	13. 12	N.E.	E.N.E.	22 $\frac{1}{2}$							
27. 9 $\frac{1}{2}$ 27. 11	S.S.W.	W.	67 $\frac{1}{2}$			13. 15 $\frac{1}{2}$	13. 16	E.N.E.	E.	22 $\frac{1}{2}$							
27. 16 27. 17 $\frac{1}{2}$	W.	W.S.W.	22 $\frac{1}{2}$			13. 19	13. 19 $\frac{1}{2}$	E.	E.N.E.	22 $\frac{1}{2}$							
27. 23 27. 23 $\frac{1}{2}$	W.S.W.	S.W.	22 $\frac{1}{2}$			14. 2	14. 3	E.N.E.	N.E.	22 $\frac{1}{2}$							
28. 5 $\frac{3}{4}$ 28. 6 $\frac{1}{4}$	S.W.	S.S.W.	22 $\frac{1}{2}$			14. 8	14. 8 $\frac{1}{2}$	N.E.	E.N.E.	22 $\frac{1}{2}$							
28. 12 28. 12 $\frac{1}{4}$	S.S.W.	S.W.	22 $\frac{1}{2}$			14. 15	14. 15 $\frac{1}{2}$	E.N.E.	E.	22 $\frac{1}{2}$							
28. 22 28. 23																	

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

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	From	To	Direct.	Retro-grade.	From	To	From	To	Direct.	Retro-grade.	From	To	From	To	Direct.	Retro-grade.			
April—cont.																				
April— <i>cont.</i>																				
d	h	d	h			d	h	d	h			d	h	d	h					
4. 8½	4. 9	N.W.	W.N.W.	22½	23. 18½	23. 19		S.S.W.	E.S.E.	90	6. 2½	6. 3	W.S.W.	S.W.			22½			
4. 20	4. 20½	W.N.W.	W.	22½	23. 23½	24. 2		E.S.E.	E.N.E.	45	6. 4½	6. 5½	S.W.	N.N.W.	112½		67½			
4. 23	4. 23½	W.	W.S.W.	22½	24. 10½	24. 11		E.N.E.	E.	22½	6. 12½	6. 12½	N.N.W.	W.			22½			
5. 1½	5. 2	W.S.W.	S.W.	22½	24. 22½	24. 23		E.	E.N.E.	22½	6. 15½	6. 15½	W.	W.S.W.			22½			
5. 8½	5. 9½	S.W.	E.	135	25. 2	25. 2½		E.N.E.	E.	22½	6. 19	6. 19½	W.S.W.	S.W.			22½			
5. 10½	5. 10½	E.	E.S.E.	22½	25. 18	25. 19		E.	E.N.E.	22½	6. 23½	6. 23½	S.W.	S.S.W.			22½			
5. 19½	5. 20½	E.S.E.	S.E.	22½	26. 19	26. 19½		E.N.E.	N.E.	22½	7. 2	7. 4	S.S.W.	W.S.W.	45		45			
6. 6½	6. 8½	S.E.	S.	45	26. 23	26. 23½		N.E.	N.N.E.	22½	7. 17½	7. 18½	W.S.W.	S.S.W.			45			
6. 12	6. 13½	S.	S.W.	45	27. 10	27. 10½		N.N.E.	N.	67½	7. 21½	7. 22½	S.S.W.	S.S.E.			45			
7. 14	7. 14½	S.W.	S.S.W.	22½	27. 16	27. 16½		N.	E.N.E.	67½	8. 0½	8. 1½	S.S.E.	E.N.E.	90		90			
8. 1½	8. 2	S.S.W.	S.W.	22½	27. 18½	27. 19		E.N.E.	N.	67½	8. 2½	8. 3½	E.N.E.	S.S.E.	90		90			
8. 17	8. 17½	S.W.	S.S.W.	22½	28. 4	28. 4½		N.	N.N.E.	22½	8. 9½	8. 10	S.S.E.	E.N.E.			90			
8. 22½	8. 23	S.S.W.	S.W.	22½	28. 8½	28. 8½		N.N.E.	W.S.W.	22½	8. 14½	8. 15	E.N.E.	E.S.E.	45		45			
9. 12½	9. 13	S.W.	S.S.W.	22½	28. 9½	28. 10		W.S.W.	S.S.W.	45	8. 16½	8. 18½	E.S.E.	E.N.E.	45		45			
10. 13	10. 15	S.S.W.	W.	67½	28. 14½	28. 15½		S.S.W.	N.E.	202½	8. 20	8. 21½	E.N.E.	N.	67½		67½			
10. 18	10. 20	W.	S.W.	45	28. 17	28. 18		N.E.	S.E.	90	9. 12	9. 12½	N.	E.	45°		45°			
11. 0	11. 0½	S.W.	S.S.W.	22½	29. 2½	29. 2½		S.E.	N.E.	90	9. 13½	9. 15	E.	N.N.E.	67½		67½			
11. 3½	11. 4	S.S.W.	S.	22½	29. 5½	29. 6		N.E.	S.E.	90	9. 16½	9. 16½	N.N.E.	S.W.	157½		157½			
11. 7½	11. 8	S.	S.E.	45	29. 8½	29. 9		S.E.	N.	135	9. 17½	9. 19	S.W.	N.	135		135			
11. 11	11. 1½	S.E.	S.W.	90	29. 12	29. 12½		N.	N.N.E.	22½	10. 16½	10. 17	N.	N.N.W.	22½		22½			
11. 13½	11. 16½	S.W.	N.	135	29. 15½	29. 17½		N.N.E.	E.S.E.	90	10. 20½	10. 21½	N.N.W.	S.	202½		202½			
11. 22½	11. 23½	N.	N.N.W.	22½	30. 3	30. 5½		E.S.E.	N.	112½	10. 22½	10. 23	S.	S.S.W.	22½		22½			
12. 8	12. 10	N.N.W.	N.	22½	30. 10	30. 11½		N.	E.S.E.	112½	11. 1	11. 1½	S.S.W.	S.	22½		22½			
12. 21	13. 0½	N.	W.S.W.	112½	30. 16	30. 16½		E.S.E.	S.	67½	11. 5½	11. 5½	W.S.W.	N.W.	67½		67½			
13. 10	13. 10½	W.S.W.	S.W.	22½	30. 22	30. 22½		S.	S.S.E.	22½	11. 10½	11. 10½	W.S.W.	W.S.W.	67½		67½			
13. 13	13. 13½	S.W.	S.S.W.	22½								11. 13½	11. 14½	N.W.	W.S.W.					
13. 16	13. 18½	S.S.W.	N.W.	112½								11. 15½	11. 16	W.S.W.	N.	112½		112½		
13. 21½	13. 22	N.W.	W.	45						2475	2205		11. 21½	11. 22	N.	E.N.E.	67½		112½	
14. 1	14. 2½	W.	S.S.W.	67½								12. 0½	12. 1	E.N.E.	N.W.					
14. 6	14. 6½	S.S.W.	S.	22½								12. 5½	12. 6½	N.W.	N.E.	90		90		
14. 12½	14. 14½	S.	W.S.W.	67½								12. 8	12. 8½	N.E.	E.N.E.	22½		22½		
14. 22	14. 22½	W.S.W.	S.W.	22½								12. 12	12. 12½	E.N.E.	N.E.					
15. 2½	15. 3	S.W.	W.S.W.	22½								12. 15½	12. 16	N.E.	E.S.E.	67½		67½		
15. 5	15. 5½	W.S.W.	W.	22½								12. 20	12. 20½	E.S.E.	E.					
15. 6½	15. 6½	W.	N.W.	45								12. 22½	12. 23	E.	E.N.E.					
15. 6½	15. 7	N.W.	W.S.W.	67½								13. 1	13. 1½	E.N.E.	N.E.					
15. 12½	15. 13½	W.S.W.	W.	22½								13. 17	13. 18	N.E.	E.	45		45		
15. 16	15. 16½	W.	W.S.W.	22½								13. 20	13. 21	E.	N.E.					
15. 23	15. 23½	W.S.W.	S.W.	22½								14. 10½	14. 15	N.E.	E.	45		45		
16. 6½	16. 8½	S.W.	N.W.	90								14. 20	14. 22	E.	N.E.					
16. 13	16. 13½	N.W.	N.N.W.	22½								15. 2½	15. 3	N.E.	N.N.E.					
16. 17	16. 17½	N.N.W.	N.	22½								15. 8	15. 8½	N.E.	E.N.E.	45		45		
17. 13½	17. 13½	N.	N.W.	45								15. 11½	15. 12	E.N.E.	E.					
17. 18	17. 20	N.W.	S.S.W.	112½								15. 17	15. 17½	E.	E.S.E.	22½		22½		
17. 22	17. 22½	S.S.W.	S.W.	22½								15. 21	15. 23½	E.S.E.	N.N.E.					
18. 8½	18. 9½	S.W.	W.S.W.	22½								16. 21½	16. 22½	N.N.E.	N.E.	22½		22½		
18. 18	18. 20	W.S.W.	S.S.W.	45								17. 11½	17. 12	N.E.	N.N.E.					
19. 3	19. 3½	S.S.W.	S.W.	22½								17. 17	17. 18½	N.N.E.	S.E.	112½		112½		
19. 11½	19. 12½	S.W.	S.S.W.	22½								17. 20	17. 22	S.E.	E.	45		45		
19. 16½	19. 19	S.S.W.	S.E.	67½								18. 1½	18. 2½	E.	N.E.	45		45		
19. 22	19. 22½	S.E.	E.S.E.	22½								18. 14½	18. 15½	N.E.	N.					
20. 9	20. 9½	E.S.E.	S.E.	22½								18. 16½	18. 18	N.	S.S.W.	157½		157½		
21. 7	21. 7½	S.E.	S.S.E.	22½								18. 21½	18. 22	S.S.W.	S.W.	22½		22½		
21. 18	21. 18½	S.S.E.	S.E.	22½								19. 32½	19. 4	S.W.	W.S.W.	22½		22½		
22. 2½	22. 4	S.E.	S.S.E.	22½								19. 7½	19. 8	W.S.W.	N.	112½		112½		
22. 10	22. 10½	S.S.E.	S.	22½								19. 12½	19. 12½	N.	N.N.W.					
22. 16	22. 17½	S.	S.E.	45								19. 15½	19. 16	N.N.W.	N.	22½		22½		
23. 3½	23. 4	S.E.	N.E.	90								19. 20½	19. 22½	N.	E.S.E.	112½		112½		
23. 7½	23. 10	N.E.	S.S.W.	157½								20. 0½	20. 1½	E.S.E.	N.E.	67½		67½		

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

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	From	To	Direct.	Retrograde.	From	To	From	To	Direct.	Retrograde.	From	To	From	To	Direct.	Retrograde.
May—cont.				°	°	June—cont.				°	°	June—cont.				°	°
d h	d h					d h	d h	E.N.E.	N.E.	22 1/2	24. 15 1/4	24. 15 1/2	W.	N.W.	45		
20. 3 1/2	20. 3 3/4	N.E.	E.	45	45	8. 1 1/2	8. 2	N.E.	E.	45	24. 17	24. 17 1/4	N.W.	N.	45		
20. 9	20. 9 1/2	- E.	N.E.			8. 6 1/2	8. 7 1/2	N.E.	E.	22 1/2	25. 3 1/2	25. 4	N.	N.N.W.		22 1/2	
20. 11	20. 11 1/2	N.E.	E.	45		8. 14 1/2	8. 15	E.	E.S.E.	45	25. 7	25. 7 1/2	N.N.W.	N.		22 1/2	
20. 17	20. 17 1/2	E.	E.S.E.	22 1/2		9. 1 1/2	9. 2	E.S.E.	E.N.E.	11 1/2	25. 15 1/4	25. 15 1/2	N.	N.E.	45		
20. 20 1/2	20. 21	E.S.E.	E.			9. 4 1/2	9. 5	E.N.E.	S.	22 1/2	25. 18 1/4	25. 18 1/2	N.E.	E.S.E.	67 1/2		
20. 22	21. 1	E.	N.E.	45		9. 7 1/2	9. 7 3/4	S.	S.S.W.	45	26. 6 1/4	26. 6 1/2	E.S.E.	N.		11 1/2	
21. 5	21. 5 1/2	N.E.	E.N.E.	22 1/2		9. 10 1/2	9. 11	S.S.W.	S.S.E.	22 1/2	26. 16	26. 16 1/2	N.	N.N.E.	22 1/2		
21. 13 1/2	21. 14	E.N.E.	E.	22 1/2		9. 12 1/2	9. 13	S.S.E.	S.S.W.	45	26. 18 1/4	26. 18 1/2	N.N.E.	E.N.E.	45		
21. 22	21. 23 1/2	E.	N.E.	45		9. 14 1/2	9. 15 1/2	S.S.W.	S.W.	22 1/2	26. 21	26. 21 1/2	E.N.E.	E.	22 1/2		
22. 5 1/2	22. 6	N.E.	E.N.E.	22 1/2		9. 22 1/2	9. 23 1/2	S.W.	N.	135	67 1/2	27. 13	E.	E.S.E.	22 1/2		
22. 8 1/2	22. 9	E.N.E.	E.	22 1/2		10. 1 1/2	10. 1 2 1/2	N.	W.N.W.	67 1/2	27. 13	27. 13 1/2	E.	E.S.E.	22 1/2		
22. 18	22. 20 1/2	E.	N.E.	45		10. 20 1/2	10. 21	W.N.W.	W.	22 1/2	28. 2	28. 2 1/2	E.S.E.	E.		22 1/2	
23. 5 1/2	23. 5 1/2	N.E.	E.N.E.	22 1/2		11. 0	11. 1	W.	W.S.W.	22 1/2	28. 20	28. 20 1/2	E.	E.N.E.		22 1/2	
23. 19 1/2	23. 20	E.N.E.	N.E.	22 1/2		11. 5 1/2	11. 6	W.S.W.	W.	22 1/2	30. 0	30. 1	E.N.E.	N.N.E.	45		
24. 6 1/2	24. 7 1/2	N.E.	E.N.E.	22 1/2		11. 11 1/2	11. 12	W.	W.N.W.	22 1/2	30. 2	30. 3	N.N.E.	E.N.E.	45		
24. 12 1/2	24. 13	E.N.E.	E.	22 1/2		11. 15 1/2	11. 16	W.N.W.	N.W.	22 1/2	30. 13	30. 13 1/2	E.N.E.	E.	22 1/2		
24. 20 1/2	24. 21 1/2	E.	N.E.	45		11. 21	11. 21 1/2	N.W.	W.	45							
25. 7	25. 7 1/2	N.E.	N.N.E.	22 1/2		12. 0	12. 0 1/2	W.	W.S.W.	22 1/2							
25. 10 1/2	25. 11	N.N.E.	N.	22 1/2		12. 6	12. 6 1/2	W.S.W.	W.	22 1/2							
25. 20 1/2	25. 21	N.	N.N.E.	22 1/2		12. 15 1/4	12. 16	W.	W.S.W.	22 1/2							
26. 0 1/2	26. 1	N.N.E.	N.			12. 19 1/2	12. 20 1/2	W.S.W.	N.N.W.	90							
26. 13	26. 14 1/2	N.	S.W.	135		12. 22	12. 22 1/2	N.N.W.	N.W.	22 1/2							
28. 17 1/2	28. 19 1/2	S.W.	E.S.E.	11 1/2		13. 2 1/2	13. 3 3/4	N.W.	W.	45							
28. 21 1/2	28. 21 1/2	E.S.E.	S.S.E.	45		13. 17 1/2	13. 18	W.	W.S.W.	22 1/2							
29. 0	29. 1	S.S.E.	E.N.E.	90		14. 5	14. 8	W.S.W.	N.	11 1/2							
29. 6 1/2	29. 6 3/4	E.N.E.	S.S.W.	135		14. 16 1/2	14. 17	N.	N.N.E.	22 1/2							
29. 7 1/2	29. 7 1/2	S.S.W.	S.S.E.	315		15. 0	15. 0 1/2	N.N.E.	N.	22 1/2	1. 2	1. 3 1/2	E.	S.W.	135		
29. 8 1/2	29. 9 1/2	S.S.E.	S.W.	67 1/2		15. 15 1/4	15. 16	N.	N.N.E.	22 1/2	1. 7 1/4	1. 8	S.W.	S.S.W.	22 1/2		
29. 14	29. 14 1/2	S.W.	S.S.W.	22 1/2		15. 18	15. 20 1/2	N.N.E.	S.S.W.	180	1. 21 1/2	1. 23 1/2	S.S.W.	S.S.E.	45		
31. 6 1/2	31. 7	S.S.W.	S.W.	22 1/2		15. 23 1/2	16. 1 1/2	S.S.W.	N.	157 1/2	2. 1 1/2	2. 3 3/2	S.S.E.	E.N.E.	90		
31. 21	31. 22 1/2	S.W.	S.	45		16. 5 1/2	16. 6	N.	N.N.W.	22 1/2	2. 7 1/2	2. 8 1/2	E.N.E.	E.	22 1/2		
						16. 14 1/2	16. 15	N.N.W.	W.	67 1/2	2. 14 1/2	2. 15 1/2	E.	S.S.E.	67 1/2		
						16. 19	16. 19 1/2	W.	N.	90	2. 19	2. 19 1/2	S.S.E.	S.E.		22 1/2	
						16. 21 1/2	16. 22 1/2	N.	W.N.W.	45	2. 21	2. 21 1/2	S.E.	E.	45		
						17. 3 1/2	17. 4 1/2	N.W.	W.N.W.	22 1/2	2. 22 1/2	2. 22 1/2	E.	E.S.E.	22 1/2		
						17. 7 1/2	17. 8 1/2	N.W.N.W.	W.N.W.	45	3. 0 1/4	3. 0 1/4	E.S.E.	E.		22 1/2	
						17. 10 1/2	17. 11	N.N.W.	W.N.W.	45	3. 15	3. 15 1/2	E.N.E.	E.	22 1/2		
June						17. 14	17. 14 1/2	W.N.W.	N.W.	22 1/2	3. 19	3. 19 1/2	E.	E.S.E.	22 1/2		
I. 3	I. 3 1/2	S.	S.S.W.	22 1/2		18. 22	19. 0 1/2	N.	N.N.W.	22 1/2	4. 0 1/2	4. 0 1/2	N.	N.N.W.	67 1/2		
I. 6 1/2	I. 7	S.S.W.	S.W.	22 1/2		19. 6 3/4	19. 9 1/2	W.S.W.	S.	29 1/2	4. 20 1/4	4. 22 1/2	N.N.W.	S.W.	247 1/2		
I. 20	I. 20 1/2	S.W.	S.S.W.	22 1/2		19. 12	19. 12 1/2	S.	S.S.W.	90	5. 1 1/2	5. 2	S.W.	W.S.W.	22 1/2		
2. 3 1/2	2. 4	S.S.W.	S.W.	22 1/2		20. 1 1/2	20. 14	S.S.W.	S.W.	22 1/2	5. 10 1/2	5. 10 1/2	W.S.W.	W.	22 1/2		
4. 8	4. 8 1/2	S.W.	W.S.W.	22 1/2		21. 14 1/2	21. 14 1/2	S.W.	S.S.W.	22 1/2	5. 20 1/2	5. 21	W.S.W.	N.	22 1/2		
4. 13	4. 13 1/2	W.S.W.	S.W.	22 1/2		22. 1 1/2	22. 3 1/2	S.W.	E.S.E.	247 1/2	6. 2 1/2	6. 3	W.S.W.	N.N.E.	11 1/2		
5. 0	5. 0 1/2	S.W.	W.S.W.	22 1/2		22. 16	22. 16 1/2	E.S.E.	S.	67 1/2	6. 14	6. 14 1/2	N.	N.N.E.	22 1/2		
5. 16 1/2	5. 17 1/2	W.S.W.	N.N.W.	90		22. 22	22. 22 1/2	S.	S.S.W.	22 1/2	6. 21	6. 21 1/2	N.N.E.	N.E.	22 1/2		
5. 20 1/2	5. 23 1/2	N.N.W.	W.S.W.	270		23. 1 1/2	23. 3	S.S.W.	S.W.	22 1/2	7. 5	7. 5 1/2	N.E.	E.N.E.	45		
6. 5	6. 6	W.S.W.	N.N.E.	135		23. 16	23. 16 1/2	E.S.E.	S.	67 1/2	7. 12 1/2	7. 13	E.N.E.	E.S.E.	45		
6. 10 1/2	6. 12	N.N.E.	N.E.	22 1/2		23. 2 1/2	23. 3	S.S.W.	S.W.	22 1/2	8. 1 1/2	8. 2	E.S.E.	E.	22 1/2		
6. 15 1/2	6. 16	N.E.	E.S.E.	67 1/2		23. 8 1/2	23. 9	W.S.W.	W.S.W.	22 1/2	8. 5	8. 6	E.	E.S.E.	22 1/2		
6. 18	6. 18 1/2	E.S.E.	E.	22 1/2		23. 12 1/2	23. 13	S.W.	W.S.W.	22 1/2	8. 8 1/2	8. 8 1/2	E.S.E.	E.	22 1/2		
6. 22 1/2	7. 0 1/2	E.	N.E.	45		23. 16 1/2	23. 17	W.S.W.	W.	22 1/2	8. 14 1/2	8. 15	E.	E.S.E.	22 1/2		
7. 3 1/2	7. 4	N.E.	N.N.E.	22 1/2		23. 2 1/2	23. 22	W.	W.S.W.	22 1/2	9. 0 1/2	9. 0 1/2	E.S.E.	N.E.	67 1/2		
7. 7 1/2	7. 8	N.N.E.	E.N.E.	45		24. 0 1/2	24. 1	W.S.W.	W.	22 1/2	9. 6 1/2	9. 7	N.E.	E.	45		
7. 13 1/2	7. 14	E.N.E.	E.	22 1/2		24. 9 1/2	24. 10	W.	N.W.	45	9. 16	9. 16 1/2	E.	E.S.E.	22 1/2		
7. 21 1/2	7. 22	E.	E.N.E.	22 1/2		24. 13 1/2	24. 14	N.W.	W.	45	10. 8 1/2	10. 8 1/2	E.S.E.	N.E.	67 1/2		

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

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	From	To	Direct.	Retrograde.	From	To	From	To	Direct.	Retrograde.	From	To	From	To	Direct.	Retrograde.
July— <i>cont.</i>				°	°	July— <i>cont.</i>				°	°	Aug.— <i>cont.</i>				°	°
d h	d h					d h	d h					d h	d h				
10. 13 ² ₄	10. 14	N.E.	E.N.E.	22 ¹ ₂		24. 20 ¹ ₂	24. 21	S.	S.S.W.	22 ¹ ₂		7. 8	7. 8 ¹ ₂	W.	W.N.W.	22 ¹ ₂	
10. 16	10. 16 ¹ ₂	E.N.E.	E.	22 ¹ ₂		25. 5 ¹ ₂	25. 6 ¹ ₂	S.S.W.	S.W.	22 ¹ ₂		7. 10 ¹ ₂	7. 10 ¹ ₂	W.N.W.	W.S.W.	22 ¹ ₂	45
11. 4	11. 4 ²	E.	N.E.	45		25. 12 ¹ ₂	25. 13 ¹ ₂	S.W.	W.S.W.	22 ¹ ₂		7. 12 ¹ ₂	7. 12 ¹ ₂	W.S.W.	W.	22 ¹ ₂	
11. 11 ¹ ₂	11. 11 ¹ ₂	N.E.	E.	45		25. 14 ¹ ₂	25. 15 ¹ ₂	W.S.W.	W.N.W.	45		7. 21 ¹ ₂	7. 22	W.	W.S.W.	22 ¹ ₂	
11. 14 ²	11. 15	E.	E.S.E.	22 ¹ ₂		25. 17	25. 17 ¹ ₂	W.N.W.	N.E.	247 ¹ ₂		8. 12 ¹ ₂	8. 13 ¹ ₂	W.S.W.	W.	22 ¹ ₂	
12. 5	12. 6 ¹ ₂	E.S.E.	S.W.	112 ¹ ₂		26. 3 ¹ ₂	26. 5 ¹ ₂	N.E.	S.W.	180		8. 20 ¹ ₂	8. 22 ¹ ₂	W.	S.W.	45	
12. 11 ¹ ₂	12. 12	S.W.	N.W.	90		26. 9	26. 10	S.W.	W.S.W.	22 ¹ ₂		9. 5 ¹ ₂	9. 6	S.W.	S.S.W.	22 ¹ ₂	
12. 13 ¹ ₂	12. 15 ¹ ₂	N.W.	E.S.E.	157 ¹ ₂		26. 15 ¹ ₂	26. 16 ¹ ₂	W.S.W.	S.W.	22 ¹ ₂		9. 16 ¹ ₂	9. 16 ¹ ₂	S.S.W.	S.	22 ¹ ₂	
12. 16 ¹ ₂	12. 16 ¹ ₂	E.S.E.	N.N.E.	90		26. 19	26. 19 ¹ ₂	S.W.	S.S.W.	22 ¹ ₂		9. 19 ¹ ₂	9. 19 ¹ ₂	S.	S.E.	45	
12. 20 ²	12. 21 ¹ ₂	N.N.E.	N.E.	22 ¹ ₂		27. 8 ¹ ₂	27. 11	S.S.W.	S.	22 ¹ ₂		9. 21 ¹ ₂	9. 22	S.E.	E.	45	
13. 1	13. 1 ²	N.E.	N.N.E.	22 ¹ ₂		27. 16	27. 16 ¹ ₂	S.	S.S.E.	22 ¹ ₂		10. 7	10. 9 ¹ ₂	E.	S.	90	
13. 8 ¹ ₂	13. 8 ¹ ₂	N.N.E.	E.N.E.	45		27. 22	28. 0 ¹ ₂	S.S.E.	S.W.	67 ¹ ₂		10. 13	10. 13 ¹ ₂	S.	S.S.W.	22 ¹ ₂	
13. 10 ²	13. 10 ¹ ₂	E.N.E.	N.N.E.	45		28. 1	28. 1 ¹ ₂	S.W.	N.N.E.	157 ¹ ₂		10. 16 ¹ ₂	10. 17 ¹ ₂	S.S.W.	S.W.	22 ¹ ₂	
13. 13	13. 13 ¹ ₂	N.N.E.	N.E.	22 ¹ ₂		28. 2	28. 4 ¹ ₂	N.N.E.	E.N.E.	45		11. 4	11. 5	S.W.	S.S.W.	22 ¹ ₂	
13. 23 ²	14. 0	N.E.	N.N.E.	22 ¹ ₂		28. 8	28. 9	E.N.E.	S.S.E.	90		11. 20 ¹ ₂	11. 22	S.S.W.	S.	22 ¹ ₂	
14. 3 ²	14. 3 ²	N.N.E.	N.	22 ¹ ₂		28. 13 ¹ ₂	28. 15 ¹ ₂	S.S.E.	N.N.E.	135		12. 1 ²	12. 2	S.	S.S.E.	22 ¹ ₂	
14. 5 ²	14. 6 ¹ ₂	N.	N.E.	45		28. 16 ¹ ₂	28. 17 ¹ ₂	N.N.E.	S.E.	112 ¹ ₂		12. 7 ¹ ₂	12. 9	S.S.E.	S.W.	67 ¹ ₂	
14. 13	14. 13 ¹ ₂	N.E.	N.N.E.	22 ¹ ₂		28. 22	28. 22 ¹ ₂	S.E.	S.	45		12. 23	13. 0 ¹ ₂	S.W.	S.S.W.	22 ¹ ₂	
14. 16 ¹ ₂	14. 16 ³ ₄	N.N.E.	S.E.	112 ¹ ₂		28. 23 ¹ ₂	29. 0 ¹ ₂	S.	W.N.W.	112 ¹ ₂		13. 8	13. 10	S.S.W.	W.S.W.	45	
15. 1 ²	15. 4 ²	S.E.	S.W.	90		29. 2	29. 2 ¹ ₂	W.N.W.	E.N.E.	135		13. 12 ¹ ₂	13. 13	W.S.W.	S.W.	22 ¹ ₂	
15. 11	15. 13	S.W.	W.	45		29. 4 ¹ ₂	29. 4 ³ ₄	E.N.E.	S.E.	67 ¹ ₂		13. 19 ¹ ₂	13. 20	S.W.	S.S.W.	22 ¹ ₂	
15. 18	15. 18 ¹ ₂	W.	W.N.W.	22 ¹ ₂		29. 6 ¹ ₂	29. 8	S.E.	N.N.E.	112 ¹ ₂		13. 22	13. 23	S.S.W.	S.	22 ¹ ₂	
15. 20 ²	15. 22	W.N.W.	S.W.	67 ¹ ₂		29. 13	29. 13 ¹ ₂	N.N.E.	S.	157 ¹ ₂		14. 8 ¹ ₂	14. 8 ¹ ₂	S.	S.S.W.	22 ¹ ₂	
16. 2 ²	16. 2 ³	S.W.	W.	45		29. 17	29. 18 ¹ ₂	S.	S.W.	45		14. 16 ¹ ₂	14. 17 ¹ ₂	S.S.W.	S.S.E.	45	
16. 5	16. 5 ¹ ₂	W.	S.	22 ¹ ₂		30. 6 ¹ ₂	30. 7 ¹ ₂	S.W.	W.S.W.	22 ¹ ₂		14. 20 ³ ₄	14. 21	S.S.E.	S.S.E.	22 ¹ ₂	
16. 6 ¹ ₂	16. 6 ³ ₄	S.	E.N.E.	112 ¹ ₂		30. 10 ¹ ₂	30. 10 ¹ ₂	W.S.W.	N.N.E.	22 ¹ ₂		14. 23	14. 23 ¹ ₂	S.E.	S.S.E.	22 ¹ ₂	
16. 8	16. 9 ¹ ₂	E.N.E.	S.S.W.	22 ¹ ₂		30. 16	30. 16 ¹ ₂	N.N.E.	S.E.	112 ¹ ₂		15. 2	15. 2 ³ ₄	S.S.E.	S.S.W.	45	
16. 21	16. 23	S.S.W.	S.W.	22 ¹ ₂		30. 18 ³ ₄	30. 19	S.E.	S.	45		15. 9 ¹ ₂	15. 11 ¹ ₂	S.S.W.	N.W.	112 ¹ ₂	
17. 7	17. 8	S.W.	W.S.W.	22 ¹ ₂		30. 21	30. 23 ¹ ₂	S.	N.	180		15. 13 ¹ ₂	15. 14	N.W.	N.N.W.	22 ¹ ₂	
17. 10 ²	17. 11	W.S.W.	W.	22 ¹ ₂		31. 17	31. 18 ¹ ₂	N.	E.	90		15. 18	15. 18 ¹ ₂	N.N.W.	N.W.	22 ¹ ₂	
17. 14	17. 15	W.	N.N.E.	112 ¹ ₂								16. 15 ⁴ ₅	16. 15 ¹ ₂	N.W.	W.N.W.		
17. 16 ³ ₄	17. 17	N.N.E.	E.	67 ¹ ₂								16. 19 ³ ₄	16. 22 ¹ ₂	W.N.W.	W.S.W.	45	
17. 19 ²	17. 20 ¹ ₂	E.	S.S.E.	67 ¹ ₂								17. 2	17. 3 ¹ ₂	W.S.W.	S.S.E.	90	
17. 22	18. 0	S.S.E.	W.S.W.	90								17. 6	17. 7 ¹ ₂	S.S.E.	S.S.W.	45	
18. 0 ³ ₄	18. 1 ²	W.S.W.	S.S.E.	90								17. 16	17. 16 ¹ ₂	S.S.W.	S.S.E.	45	
18. 5	18. 5 ²	S.S.E.	E.S.E.	45								17. 19 ³ ₄	17. 20	S.S.E.	S.E.	22 ¹ ₂	
18. 10 ²	18. 11	E.S.E.	E.	22 ¹ ₂								18. 1 ²	18. 2	S.E.	E.	45	
18. 15 ²	18. 16	E.	E.S.E.	22 ¹ ₂								18. 9	18. 9 ¹ ₂	E.	S.E.	45	
19. 1 ²	19. 1 ³ ₄	E.S.E.	E.N.E.	45								18. 16	18. 17	S.E.	E.S.E.	22 ¹ ₂	
19. 10 ²	19. 10 ³ ₄	E.N.E.	N.E.	67 ¹ ₂		1. 0 ¹ ₄	1. 0 ³ ₄	E.	N.E.	45		19. 0 ¹ ₄	19. 0 ¹ ₂	E.S.E.	N.E.	67 ¹ ₂	
19. 12 ¹ ₂	19. 12 ¹ ₂	N.E.	E.S.E.	67 ¹ ₂		1. 3	1. 3 ¹ ₄	N.E.	N.	45		19. 12 ¹ ₂	19. 12 ¹ ₂	N.E.	N.N.E.	22 ¹ ₂	
20. 0	20. 1	E.S.E.	E.	22 ¹ ₂		2. 0 ² ₃	2. 1	N.	N.N.W.	22 ¹ ₂		19. 17 ¹ ₄	19. 17 ¹ ₂	N.N.E.	E.N.E.	45	
20. 6	20. 6 ¹ ₂	E.	E.N.E.	45		2. 9 ²	2. 10	N.N.W.	N.	22 ¹ ₂		19. 19	19. 19 ¹ ₂	E.N.E.	N.E.	22 ¹ ₂	
20. 8	20. 8 ¹ ₂	E.N.E.	E.S.E.	45		2. 19	2. 21	N.	S.E.	135		20. 13	20. 14 ¹ ₂	N.E.	E.	45	
21. 10 ²	21. 10 ¹ ₂	E.S.E.	S.S.E.	45		2. 22	2. 22 ¹ ₂	S.E.	E.N.E.	67 ¹ ₂		21. 11 ¹ ₂	21. 11 ¹ ₂	E.N.E.	E.	22 ¹ ₂	
21. 13 ²	21. 13 ¹ ₂	S.S.E.	S.S.W.	45		3. 3 ¹ ₂	3. 4 ² ₃	E.N.E.	W.S.W.	180		21. 13 ²	21. 13 ³ ₄	E.	E.S.E.	22 ¹ ₂	
21. 20 ²	21. 22	S.S.W.	W.S.W.	45		3. 17	3. 18	W.S.W.	S.W								

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

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	From	To	Direct.	Retro-grade.	From	To	From	To	Direct.	Retro-grade.	From	To	From	To	Direct.	Retro-grade.
Aug.—cont.				o	o	Sept.—cont.				o	o	Sept.—cont.				o	o
d h d h	d h	E.S.E.	S.	6-1		10. 4	10. 5	S.W.	W.S.W.	221		30. 612	30. 10	N.W.	E.	135	
25. 103	25. 121	S.	S.W.	45		10. 15	10. 151	W.S.W.	W.	221		30. 1712	30. 1732	E.	S.S.E.	6712	
25. 182	25. 202	S.W.	W.	45		10. 1712	10. 1832	W.	W.S.W.	221		30. 2112	30. 2132	S.S.E.	E.S.E.	45	
26. 2	26. 22	W.	W.N.W.	221		10. 21	10. 2132	W.S.W.	N.N.W.	90		6712					
26. 18	26. 182	W.	W.N.W.	45		11. 313	11. 4	N.N.W.	W.								
26. 223	27. 02	W.N.W.	W.S.W.	225		11. 5	11. 54	W.	W.S.W.	221							
27. 19	27. 21	W.S.W.	N.N.E.	45		11. 7	11. 72	W.S.W.	N.W.	6712							
27. 223	27. 232	N.N.E.	N.N.W.	6712		11. 81	11. 92	N.W.	W.N.W.	221							
28. 24	28. 4	N.N.W.	W.	221		11. 141	11. 15	W.N.W.	N.N.W.	45							
28. 7	28. 72	W.	W.N.W.	221		11. 18	11. 19	N.N.W.	N.	221							
28. 182	28. 19	W.N.W.	W.	221		14. 20	14. 201	N.	N.N.W.	221							
28. 212	28. 222	W.	W.S.W.	221		15. 21	15. 22	N.N.W.	N.W.	221							
29. 7	29. 8	W.S.W.	W.N.W.	45		16. 14	16. 12	N.W.	S.	135							
29. 103	29. 11	W.N.W.	N.W.	221		16. 1314	16. 132	S.	S.S.E.	221	1. 0	1. 114	E.S.E.	N.E.	6712		
29. 142	29. 15	N.W.	W.	45		16. 1812	16. 1834	S.S.E.	E.S.E.	45	1. 32	1. 412	N.E.	E.	45		
29. 17	29. 171	W.	W.S.W.	221		16. 2112	17. 02	E.S.E.	S.S.E.	45	1. 8	1. 1114	E.	S.S.E.	6712		
29. 19	29. 20	W.S.W.	S.W.	221		17. 12	17. 14	S.S.E.	S.S.W.	45	1. 1212	1. 13	S.S.E.	S.	221		
30. 7	30. 8	S.W.	W.S.W.	221		17. 1612	17. 17	S.S.W.	S.W.	221	1. 16	1. 18	S.	E.	90		
31. 112	31. 12	W.S.W.	W.	221		17. 1912	17. 2012	S.W.	W.S.W.	221	2. 14	2. 141	E.	N.N.W.	24712		
31. 15	31. 18	W.	N.N.W.	6712		17. 2212	17. 23	W.S.W.	W.	221	2. 1612	2. 17	N.N.W.	N.E.	6712		
31. 22	31. 23	N.N.W.	N.E.	6712		18. 54	18. 52	W.	W.S.W.	221	2. 1712	2. 1814	N.E.	S.E.	90		
						18. 1212	18. 132	W.S.W.	S.W.	221	2. 1912	2. 1934	S.E.	S.W.	90		
						18. 18	18. 1812	S.W.	S.	45	3. 1712	3. 1714	S.W.	S.S.W.	221		
						18. 2312	19. 0	S.	S.S.E.	221	3. 22	3. 2312	S.S.W.	S.	221		
						19. 9	19. 10	S.S.E.	S.	45	4. 9	4. 91	S.	S.S.W.	221		
						19. 18	19. 20	S.	S.E.	45	4. 1112	4. 12	S.S.W.	N.N.W.	135		
						20. 21	20. 32	S.E.	S.S.E.	221	4. 2212	4. 23	N.N.W.	N.W.	221		
						20. 54	20. 6	S.S.E.	S.	221	5. 3	5. 32	N.W.	S.S.W.	11212		
						20. 20	20. 21	S.	S.S.E.	221	5. 1912	5. 22	S.S.W.	W.S.W.	45		
						20. 2312	21. 0	S.S.E.	S.E.	221	6. 1212	6. 3	W.S.W.	S.S.W.	45		
						21. 2	21. 3	S.E.	E.S.E.	45	6. 10	6. 1012	S.S.W.	W.N.W.	221		
						21. 10	21. 1112	E.S.E.	S.S.E.	221	6. 1612	6. 17	W.N.W.	W.	221		
						21. 2112	21. 2212	S.S.E.	S.E.	45	6. 23	6. 2312	W.	W.S.W.	221		
						22. 16	22. 1812	S.E.	E.	221	7. 8	7. 92	W.S.W.	W.	221		
						23. 5	23. 51	E.	E.N.E.	45	7. 2112	7. 2212	W.	S.W.	45		
						23. 7123	23. 72	E.N.E.	E.S.E.	45	8. 102	8. 12	S.W.	S.	45		
						23. 1012	23. 11	E.S.E.	S.S.E.	45	8. 14	8. 1412	S.	S.W.	45		
						23. 2312	23. 18	S.S.E.	E.S.E.	45	8. 1612	8. 17	S.W.	S.S.W.	221		
						23. 2212	24. 0	E.S.E.	S.E.	221	9. 1	9. 2	S.S.W.	S.W.	221		
						24. 17	24. 1912	S.E.	E.S.E.	6712	9. 34	9. 4	S.W.	W.S.W.	221		
						24. 2312	24. 233	E.S.E.	S.	6712	9. 8	9. 10	W.S.W.	W.N.W.	45		
						25. 32	25. 6	S.	E.S.E.	221	9. 1112	9. 12	W.N.W.	N.W.	221		
						25. 1312	25. 15	E.S.E.	S.E.	221	9. 16	9. 1612	N.W.	N.N.W.	221		
						25. 1812	25. 2112	S.E.	S.	45	9. 18	9. 19	N.N.W.	N.	221		
						26. 62	26. 82	S.	N.W.	135	10. 2	10. 21	N.	S.E.	135		
						26. 10	26. 1012	N.W.	N.N.W.	221	10. 52	10. 64	S.E.	S.S.W.	6712		
						26. 1412	26. 17	N.N.W.	W.S.W.	6712	10. 72	10. 8	S.S.W.	S.	221		
						26. 2012	26. 2312	W.S.W.	S.	221	10. 11	10. 12	S.	S.S.W.	221		
						27. 42	27. 5	S.	S.S.E.	221	11. 4	11. 51	S.S.W.	S.W.	221		
						27. 8	27. 812	S.S.E.	S.	221	11. 812	11. 10	S.W.	N.	135		
						28. 12	28. 124	S.	S.S.W.	221	11. 16	11. 18	N.	E.	90		
						28. 1712	28. 18	S.S.W.	S.	221	11. 21	11. 214	E.	N.N.E.	6712		
						29. 52	29. 812	S.	N.	180	11. 21	11. 214	N.N.E.	E.S.E.	90		
						29. 1112	29. 12	N.	S.	180	12. 94	12. 9412	N.N.E.	E.S.E.	90		
						29. 132	29. 14	S.	S.E.	45	12. 23	13. 0	E.S.E.	E.	221		
						29. 17	29. 1712	S.E.	E.	45	13. 212	13. 24	E.	E.N.E.	221		
						29. 2112	29. 2132	E.	S.E.	45	13. 42	13. 42	E.N.E.	N.N.E.	45		
						30. 0	30. 1	S.E.	E.	45	13. 1212	13. 142	N.N.E.	E.N.E.	45		
						30. 41	30. 52	E.	N.W.	225	13. 2312	14. 0	E.N.E.	N.N.W.	90		

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

(cii)

ABSTRACT OF THE CHANGES OF THE DIRECTION OF THE WIND AND HORIZONTAL MOVEMENT OF THE AIR,

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	From	To	Direct.	Retro-grade.	From	To	From	To	Direct.	Retro-grade.	From	To	From	To	Direct.	Retro-grade.
Dec.—cont.				o	o	Dec.—cont.				o	o	Dec.—cont.				o	o
d h	d h	S.E.	S.S.E.	22 $\frac{1}{2}$		d h	d h	S.W.	S.	d h	d h	S.W.	S.S.W.			22 $\frac{1}{2}$	
28. 22	28. 22 $\frac{1}{2}$	S.E.	S.S.E.	22 $\frac{1}{2}$		29. 23 $\frac{3}{4}$	30. 1	S.W.	S.	31. 11 $\frac{1}{2}$	31. 12	S.W.	S.S.W.			22 $\frac{1}{2}$	
29. 1	29. 2 $\frac{1}{2}$	S.S.E.	S.W.	67 $\frac{1}{2}$	22 $\frac{1}{2}$	30. 3 $\frac{1}{2}$	30. 4	S.	S.S.E.	45	22 $\frac{1}{2}$						
29. 5	29. 5 $\frac{1}{2}$	S.W.	S.S.W.	22 $\frac{1}{2}$		30. 5 $\frac{3}{4}$	30. 6 $\frac{1}{2}$	S.S.E.	S.S.W.	22 $\frac{1}{2}$							
29. 15	29. 16	S.S.W.	S.W.	22 $\frac{1}{2}$		30. II	30. 12	S.S.W.	S.W.					Sums	1530	2272 $\frac{1}{2}$	

Excess of Motion in each Month.

1901.		Direct.	Retrograde.	1901.		Direct.	Retrograde.
January		225	o o	July		1440	o o
February		78 $\frac{1}{2}$		August		45	
March		427 $\frac{1}{2}$		September.....		427 $\frac{1}{2}$	
April		270		October.....		652 $\frac{1}{2}$	
May		742 $\frac{1}{2}$		November.....		900	
June.....		2070		December.....		742 $\frac{1}{2}$	

The whole excess of direct motion for the year was 5580°.

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	1901.												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	11·9	9·3	14·3	11·1	7·6	9·2	5·2	8·3	7·9	8·9	11·5	13·9	9·9
2	12·5	9·6	14·4	11·3	7·8	9·4	5·5	8·4	8·6	8·9	12·3	14·0	10·2
3	12·0	9·9	14·8	12·4	7·7	9·4	5·6	8·1	8·5	8·6	12·2	13·6	10·2
4	11·5	10·2	14·0	11·8	7·6	8·7	5·7	7·6	7·8	9·0	12·2	13·1	9·9
5	11·2	10·4	14·8	11·9	7·9	9·4	5·5	7·7	7·4	8·3	12·1	13·1	10·0
6	10·9	9·9	14·7	11·0	7·8	9·7	5·5	8·0	7·8	8·8	12·3	13·9	10·0
7	11·3	10·6	15·3	11·0	9·0	10·4	5·8	8·3	7·8	8·3	11·3	13·8	10·2
8	11·2	10·3	15·7	12·2	9·3	11·9	5·9	9·1	8·0	8·3	11·2	13·6	10·6
9	11·8	10·5	16·3	14·0	10·1	12·5	6·8	10·4	9·0	8·8	11·2	13·8	11·3
10	12·0	11·1	18·2	15·3	10·9	13·0	7·5	10·5	10·1	10·0	11·4	13·9	12·0
11	13·5	12·0	18·1	15·9	11·2	12·9	8·0	12·1	10·4	10·6	11·7	15·1	12·6
Noon.	14·4	12·7	19·8	17·0	11·7	13·9	9·1	13·2	11·8	11·5	12·7	15·8	13·6
13 ^h	14·9	12·7	20·3	18·9	12·1	14·3	9·0	12·9	11·3	12·6	13·5	16·0	14·0
14	14·9	12·7	19·3	17·5	12·1	14·3	9·7	13·8	11·1	12·3	13·9	15·5	13·9
15	14·5	11·7	18·3	17·7	12·6	14·5	9·7	13·3	10·9	12·5	13·7	14·9	13·7
16	14·3	12·1	18·2	17·2	12·3	14·5	9·4	13·6	10·8	12·1	13·2	13·9	13·5
17	13·9	11·6	17·7	16·2	11·9	13·8	9·0	14·2	10·5	11·3	13·1	14·3	13·1
18	13·9	11·1	16·2	14·4	11·3	12·9	9·1	13·1	9·9	10·5	12·7	14·4	12·5
19	13·1	10·1	15·9	12·7	11·1	12·8	8·6	11·5	9·2	11·0	12·4	14·6	11·9
20	14·2	10·2	16·2	12·4	9·9	12·1	8·1	10·3	8·7	10·6	12·5	14·4	11·6
21	12·8	10·3	14·6	12·1	9·1	10·7	7·5	10·0	8·7	10·7	11·7	14·7	11·1
22	12·6	9·9	14·0	12·3	9·1	10·3	6·7	9·7	8·5	10·4	11·4	14·0	10·7
23	12·9	9·9	13·8	12·3	8·7	9·7	6·4	9·4	8·2	10·3	11·5	14·6	10·6
Midnight.	12·0	9·8	14·1	11·7	8·0	9·9	5·6	8·8	8·2	9·7	11·6	15·2	10·4
Means	12·8	10·8	16·2	13·8	9·9	11·7	7·3	10·5	9·2	10·2	12·2	14·3	11·6
Greatest Hourly Measures.....	54	26	42	39	26	31	19	35	33	39	43	42	...
Least Hourly Measures.....	0	1	1	1	0	0	0	0	1	1	0	1	...

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.)

1901.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	+ 597	+ 667	+ 048	+ 899	+ 778	...	+ 408	+ 628	+ 350	...	+ 601	+ 829
2	+ 713	+ 551	+ 195	+ 840	+ 834	+ 349	+ 332	+ 663	+ 588	+ 078	+ 981	+ 671
3	+ 807	+ 610	+ 438	+ 209	+ 669	+ 451	+ 524	+ 425	+ 655	+ 250	+ 965	+ 921
4	+ 659	+ 1023	+ 254	+ 697	+ 840	+ 705	+ 811	+ 397	+ 396	...	+ 1101	+ 656
5	+ 723	+ 667	+ 250	+ 993	...	+ 907	+ 512	+ 627	+ 485	...	+ 960	+ 506
6	+ 256	+ 1001	+ 210	+ 505	+ 745	+ 711	+ 521	+ 542	+ 388	+ 128	+ 931	+ 877
7	+ 369	+ 1085	+ 329	...	+ 584	+ 608	+ 213	+ 550	+ 350	+ 387	+ 897	+ 315
8	...	+ 795	+ 304	+ 195	+ 397	+ 637	+ 587	+ 404	+ 276	+ 278	+ 735	...
9	+ 646	+ 697	+ 588	+ 540	+ 668	+ 464	+ 522	+ 412	+ 246	+ 441	+ 881	+ 425
10	+ 407	+ 812	+ 599	+ 491	+ 926	+ 928	+ 595	+ 333	+ 283	+ 528	+ 657	+ 783
11	+ 454	+ 957	+ 590	+ 414	+ 814	+ 844	+ 470	+ 418	+ 282	+ 390	+ 632	+ 963
12	+ 323	+ 1471	+ 302	+ 1050	+ 505	+ 530	+ 502	+ 440	...	+ 325	+ 147	- 658
13	+ 234	+ 1139	+ 529	+ 265	+ 667	+ 759	+ 432	+ 565	...	+ 355	...	+ 205
14	+ 811	+ 1454	+ 420	+ 528	+ 616	+ 899	+ 406	+ 408	+ 437	+ 263	+ 770	+ 504
15	+ 661	+ 1239	+ 387	+ 189	+ 645	+ 1039	+ 633	+ 626	+ 438	+ 460	+ 1192	+ 997
16	+ 197	+ 1044	+ 302	+ 407	+ 869	+ 697	+ 557	+ 886	+ 306	+ 141	+ 1433	+ 967
17	+ 273	+ 626	+ 328	+ 1004	...	+ 1121	+ 851	+ 636	...	+ 176	+ 1180	+ 1071
18	+ 287	+ 1061	+ 618	+ 797	+ 901	+ 1107	+ 512	+ 452	+ 509	+ 094	+ 726	+ 1014
19	+ 085	+ 634	+ 406	+ 724	+ 500	+ 808	+ 587	...	+ 445	+ 387	+ 475	+ 1431
20	+ 408	+ 1200	+ 323	+ 488	+ 469	+ 491	+ 491	+ 557	...	+ 545	+ 595	+ 1411
21	+ 245	+ 1184	+ 659	+ 472	+ 574	+ 343	+ 432	+ 577	+ 243	+ 592	+ 420	+ 1310
22	+ 296	+ 300	+ 1121	+ 551	+ 588	+ 283	+ 582	+ 579	+ 249	+ 486	+ 551	+ 1078
23	+ 623	+ 402	+ 1112	+ 749	+ 669	+ 305	+ 275	+ 568	+ 260	+ 517	+ 1168	+ 728
24	+ 334	+ 383	+ 864	+ 575	+ 622	+ 879	...	+ 375	+ 275	+ 399	+ 1223	+ 549
25	+ 286	+ 306	+ 974	+ 415	+ 736	+ 874	+ 300	+ 275	...	+ 736	+ 1400	+ 583
26	+ 474	+ 058	+ 1418	...	+ 462	+ 699	+ 281	+ 312	...	+ 797	+ 885	+ 761
27	+ 152	+ 091	+ 1448	+ 962	+ 512	+ 611	+ 048	+ 450	+ 327	+ 698	...	+ 1156
28	+ 496	+ 194	+ 1512	+ 648	+ 567	...	+ 295	+ 944	+ 264	+ 294	+ 1085	+ 346
29	+ 798		+ 1046	+ 865	+ 554	...	+ 336	+ 825	+ 248	+ 278	+ 1276	+ 297
30	+ 988		- 67	+ 709	+ 290	+ 487	+ 604	+ 380	...	+ 406	+ 1035	+ 202
31	+ 658		+ 337		+ 418		+ 490	+ 385		+ 490		
Means.....	+ 475	+ 773	+ 576	+ 614	+ 635	+ 687	+ 470	+ 521	+ 361	+ 390	+ 889	+ 721

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.	1901.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight.	+ 458	+ 824	+ 588	+ 665	+ 657	+ 662	+ 569	+ 556	+ 410	+ 380	+ 892	+ 694	+ 613	
1 ^h	+ 458	+ 748	+ 572	+ 648	+ 478	+ 623	+ 532	+ 521	+ 370	+ 355	+ 800	+ 683	+ 566	
2	+ 436	+ 695	+ 531	+ 605	+ 446	+ 627	+ 470	+ 483	+ 322	+ 352	+ 720	+ 609	+ 525	
3	+ 491	+ 660	+ 510	+ 518	+ 576	+ 654	+ 452	+ 446	+ 312	+ 334	+ 681	+ 572	+ 517	
4	+ 473	+ 653	+ 488	+ 529	+ 604	+ 661	+ 444	+ 460	+ 310	+ 322	+ 694	+ 608	+ 521	
5	+ 449	+ 662	+ 440	+ 534	+ 607	+ 583	+ 459	+ 462	+ 293	+ 292	+ 698	+ 618	+ 508	
6	+ 454	+ 679	+ 456	+ 578	+ 632	+ 603	+ 494	+ 462	+ 270	+ 270	+ 655	+ 584	+ 511	
7	+ 441	+ 706	+ 524	+ 615	+ 667	+ 727	+ 517	+ 459	+ 272	+ 261	+ 663	+ 532	+ 532	
8	+ 431	+ 759	+ 534	+ 657	+ 661	+ 750	+ 497	+ 477	+ 264	+ 270	+ 691	+ 583	+ 548	
9	+ 464	+ 822	+ 539	+ 658	+ 638	+ 720	+ 489	+ 510	+ 323	+ 369	+ 827	+ 662	+ 585	
10	+ 529	+ 883	+ 611	+ 620	+ 771	+ 815	+ 446	+ 637	+ 397	+ 423	+ 982	+ 745	+ 655	
11	+ 479	+ 855	+ 566	+ 545	+ 781	+ 768	+ 513	+ 581	+ 358	+ 405	+ 996	+ 867	+ 643	
Noon.	+ 462	+ 728	+ 487	+ 577	+ 599	+ 728	+ 447	+ 535	+ 320	+ 389	+ 969	+ 912	+ 596	
13 ^h	+ 493	+ 736	+ 478	+ 455	+ 650	+ 658	+ 438	+ 546	+ 344	+ 371	+ 982	+ 908	+ 588	
14	+ 500	+ 757	+ 501	+ 502	+ 621	+ 587	+ 420	+ 450	+ 332	+ 365	+ 929	+ 818	+ 565	
15	+ 500	+ 810	+ 564	+ 528	+ 527	+ 635	+ 427	+ 408	+ 336	+ 393	+ 962	+ 778	+ 572	
16	+ 476	+ 830	+ 695	+ 620	+ 569	+ 637	+ 359	+ 449	+ 353	+ 420	+ 1028	+ 776	+ 601	
17	+ 526	+ 775	+ 685	+ 586	+ 594	+ 637	+ 405	+ 463	+ 398	+ 485	+ 1106	+ 796	+ 621	
18	+ 519	+ 845	+ 725	+ 649	+ 662	+ 696	+ 469	+ 560	+ 443	+ 505	+ 1114	+ 796	+ 665	
19	+ 536	+ 857	+ 764	+ 711	+ 612	+ 709	+ 459	+ 589	+ 470	+ 489	+ 1070	+ 760	+ 669	
20	+ 471	+ 816	+ 705	+ 732	+ 664	+ 686	+ 446	+ 571	+ 473	+ 481	+ 1019	+ 836	+ 658	
21	+ 454	+ 789	+ 620	+ 740	+ 786	+ 705	+ 468	+ 606	+ 479	+ 496	+ 999	+ 777	+ 660	
22	+ 456	+ 849	+ 629	+ 755	+ 696	+ 801	+ 522	+ 665	+ 409	+ 490	+ 955	+ 743	+ 664	
23	+ 453	+ 822	+ 605	+ 695	+ 748	+ 806	+ 546	+ 618	+ 402	+ 444	+ 912	+ 640	+ 641	
24	+ 452	+ 807	+ 608	+ 665	+ 656	+ 646	+ 584	+ 561	+ 355	+ 405	+ 878	+ 663	+ 607	
Means	0 ^h -23 ^h	+ 475	+ 773	+ 576	+ 614	+ 635	+ 687	+ 470	+ 521	+ 361	+ 390	+ 889	+ 721	+ 593
	1 ^h -24 ^h	+ 475	+ 773	+ 576	+ 614	+ 635	+ 686	+ 471	+ 522	+ 359	+ 391	+ 889	+ 719	+ 592
Number of Days Employed.	30	28	31	28	29	27	30	30	23	28	28	29	...	

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.	1901.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight.	+ 377	+ 916	+ 356	+ 485	+ 327	+ 412	+ 408	+ 442	+ 530	+ 286	+ 482	+ 379	+ 450	
1 ^h	+ 381	+ 649	+ 326	+ 495	- 630	+ 478	+ 320	+ 423	+ 430	+ 236	+ 194	+ 382	+ 307	
2	+ 346	+ 794	+ 256	+ 458	- 492	+ 670	+ 228	+ 368	+ 350	+ 204	+ 198	+ 253	+ 303	
3	+ 371	+ 551	+ 197	+ 381	+ 437	+ 763	+ 282	+ 309	+ 333	+ 173	+ 244	+ 258	+ 358	
4	+ 408	+ 506	+ 151	+ 405	+ 613	+ 753	+ 283	+ 361	+ 297	+ 197	+ 312	+ 419	+ 392	
5	+ 389	+ 531	+ 077	+ 339	+ 513	+ 413	+ 252	+ 361	+ 263	+ 211	+ 308	+ 489	+ 346	
6	+ 334	+ 613	+ 095	+ 363	+ 627	+ 392	+ 272	+ 416	+ 187	+ 204	+ 326	+ 459	+ 357	
7	+ 311	+ 671	+ 193	+ 392	+ 760	+ 633	+ 293	+ 387	+ 197	+ 180	+ 422	+ 338	+ 398	
8	+ 301	+ 699	+ 202	+ 404	+ 655	+ 735	+ 288	+ 482	+ 257	+ 143	+ 486	+ 379	+ 419	
9	+ 264	+ 831	+ 188	+ 346	+ 568	+ 662	+ 190	+ 510	+ 393	+ 204	+ 666	+ 407	+ 436	
10	+ 270	+ 930	+ 257	+ 197	+ 812	+ 783	+ 293	+ 658	+ 553	+ 201	+ 820	+ 325	+ 508	
11	+ 156	+ 937	+ 267	+ 135	+ 855	+ 685	+ 270	+ 541	+ 450	+ 127	+ 758	+ 511	+ 474	
Noon.	+ 196	+ 766	+ 208	+ 323	+ 240	+ 635	+ 172	+ 470	+ 280	+ 117	+ 658	+ 618	+ 390	
13 ^h	+ 314	+ 764	+ 209	+ 286	+ 785	+ 593	+ 230	+ 596	+ 340	+ 159	+ 538	+ 607	+ 452	
14	+ 340	+ 807	+ 263	+ 448	+ 988	+ 493	+ 302	+ 468	+ 350	+ 206	+ 370	+ 478	+ 459	
15	+ 307	+ 796	+ 301	+ 370	+ 447	+ 542	+ 348	+ 337	+ 340	+ 273	+ 538	+ 377	+ 415	
16	+ 163	+ 660	+ 475	+ 617	+ 433	+ 517	+ 007	+ 452	+ 303	+ 251	+ 700	+ 299	+ 406	
17	+ 302	+ 199	+ 493	+ 529	+ 322	+ 350	+ 180	+ 456	+ 310	+ 190	+ 818	+ 368	+ 376	
18	+ 274	+ 459	+ 568	+ 599	+ 618	+ 478	+ 357	+ 670	+ 340	+ 206	+ 836	+ 410	+ 485	
19	+ 392	+ 661	+ 553	+ 695	+ 352	+ 403	+ 415	+ 598	+ 187	+ 261	+ 798	+ 413	+ 477	
20	+ 300	+ 609	+ 552	+ 664	+ 365	+ 618	+ 330	+ 400	+ 030	+ 293	+ 750	+ 487	+ 450	
21	+ 299	+ 557	+ 455	+ 629	+ 858	+ 333	+ 212	+ 424	+ 250	+ 314	+ 758	+ 327	+ 451	
22	+ 339	+ 450	+ 449	+ 668	+ 407	+ 700	+ 253	+ 641	- 100	+ 316	+ 698	+ 310	+ 428	
23	+ 342	+ 477	+ 414	+ 572	+ 775	+ 792	+ 472	+ 568	+ 043	+ 274	+ 638	+ 283	+ 471	
24	+ 347	+ 461	+ 415	+ 590	+ 265	+ 670	+ 508	+ 533	+ 050	+ 247	+ 586	+ 450	+ 427	
Means	{ 0 ^h -23 ^h .	+ 312	+ 660	+ 313	+ 450	+ 485	+ 576	+ 277	+ 472	+ 288	+ 218	+ 555	+ 399	+ 417
	{ 1 ^h -24 ^h .	+ 310	+ 641	+ 315	+ 454	+ 482	+ 587	+ 282	+ 476	+ 268	+ 216	+ 559	+ 402	+ 416
Number of Days employed.	{ }	9	7	15	11	4	6	6	9	3	7	5	12	...

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.	1901.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight.	+ 519	+ 783	+ 739	+ 736	+ 704	+ 753	+ 624	+ 611	+ 412	+ 436	+ 1003	+ 963	+ 690	
1 ^h	+ 517	+ 758	+ 753	+ 706	+ 650	+ 654	+ 598	+ 569	+ 385	+ 408	+ 955	+ 951	+ 659	
2	+ 493	+ 697	+ 735	+ 653	+ 595	+ 593	+ 541	+ 542	+ 342	+ 398	+ 854	+ 915	+ 613	
3	+ 561	+ 648	+ 720	+ 602	+ 600	+ 611	+ 502	+ 516	+ 335	+ 393	+ 798	+ 839	+ 594	
4	+ 517	+ 666	+ 711	+ 581	+ 586	+ 635	+ 493	+ 508	+ 336	+ 379	+ 800	+ 783	+ 583	
5	+ 487	+ 696	+ 705	+ 624	+ 606	+ 627	+ 520	+ 512	+ 324	+ 357	+ 805	+ 754	+ 585	
6	+ 521	+ 718	+ 742	+ 677	+ 623	+ 661	+ 563	+ 489	+ 308	+ 312	+ 745	+ 714	+ 589	
7	+ 501	+ 717	+ 800	+ 722	+ 637	+ 765	+ 585	+ 496	+ 308	+ 292	+ 734	+ 707	+ 605	
8	+ 484	+ 749	+ 788	+ 803	+ 640	+ 774	+ 560	+ 482	+ 282	+ 305	+ 755	+ 763	+ 615	
9	+ 552	+ 853	+ 779	+ 856	+ 638	+ 754	+ 578	+ 529	+ 332	+ 429	+ 882	+ 891	+ 673	
10	+ 632	+ 926	+ 854	+ 871	+ 752	+ 838	+ 497	+ 661	+ 395	+ 511	+ 1041	+ 1093	+ 756	
11	+ 607	+ 874	+ 786	+ 768	+ 776	+ 811	+ 590	+ 621	+ 360	+ 525	+ 1072	+ 1170	+ 747	
Noon.	+ 560	+ 765	+ 725	+ 671	+ 658	+ 765	+ 525	+ 581	+ 339	+ 501	+ 1057	+ 1168	+ 693	
13 ^h	+ 552	+ 829	+ 738	+ 547	+ 630	+ 673	+ 500	+ 543	+ 359	+ 445	+ 1104	+ 1176	+ 675	
14	+ 555	+ 866	+ 739	+ 519	+ 558	+ 622	+ 460	+ 452	+ 339	+ 421	+ 1074	+ 1115	+ 642	
15	+ 578	+ 925	+ 821	+ 540	+ 508	+ 663	+ 460	+ 444	+ 348	+ 450	+ 1076	+ 1111	+ 660	
16	+ 623	+ 985	+ 913	+ 548	+ 548	+ 694	+ 460	+ 461	+ 377	+ 516	+ 1123	+ 1177	+ 702	
17	+ 652	+ 1018	+ 827	+ 569	+ 597	+ 749	+ 477	+ 485	+ 429	+ 589	+ 1196	+ 1183	+ 731	
18	+ 648	+ 1034	+ 815	+ 621	+ 618	+ 797	+ 507	+ 536	+ 486	+ 613	+ 1205	+ 1190	+ 751	
19	+ 622	+ 1002	+ 928	+ 634	+ 619	+ 847	+ 474	+ 616	+ 542	+ 567	+ 1157	+ 1079	+ 757	
20	+ 566	+ 960	+ 820	+ 715	+ 699	+ 719	+ 477	+ 673	+ 570	+ 535	+ 1101	+ 1137	+ 748	
21	+ 543	+ 909	+ 752	+ 794	+ 770	+ 831	+ 535	+ 712	+ 545	+ 535	+ 1071	+ 1155	+ 763	
22	+ 535	+ 941	+ 768	+ 805	+ 746	+ 851	+ 597	+ 693	+ 517	+ 540	+ 1027	+ 1127	+ 762	
23	+ 532	+ 858	+ 811	+ 774	+ 754	+ 819	+ 575	+ 628	+ 484	+ 507	+ 989	+ 1059	+ 733	
24	+ 528	+ 897	+ 841	+ 674	+ 720	+ 721	+ 620	+ 588	+ 428	+ 437	+ 961	+ 866	+ 690	
Means	0 ^h -23 ^h .	+ 557	+ 841	+ 782	+ 681	+ 646	+ 729	+ 529	+ 557	+ 394	+ 457	+ 984	+ 1007	+ 680
	1 ^h -24 ^h .	+ 557	+ 845	+ 786	+ 678	+ 647	+ 728	+ 529	+ 556	+ 395	+ 457	+ 983	+ 1003	+ 680
Number of Days employed.	{	19	12	13	14	22	18	23	19	17	15	22	15	...

AMOUNT OF RAIN COLLECTED IN EACH MONTH OF THE YEAR 1901.

AMOUNT OF RAIN COLLECTED in each MONTH of the YEAR 1901.

MONTH, 1901.	Number of Rainy Days.	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.			
				No. 1.	No. 2.	No. 3.	No. 4.		No. 6.	No. 7.	No. 8.	
January	11	in.	in.	in.	0.210	0.269	0.443	0.559	0.654	0.762	0.708	0.744
February	11	0.270	0.359	0.473				0.585	0.741	0.865	0.817	0.823
March	16	0.827	0.846	1.289				1.759	2.095	2.170	1.977	2.125
April	13	0.852	0.837	1.239				1.508	1.758	1.807	1.726	1.833
May	5	1.543	1.634	1.712				1.849	1.823	1.793	1.785	1.823
June	9	1.134	1.214	1.315				1.403	1.418	1.491	1.409	1.418
July	8	1.289	1.347	1.448				1.500	1.511	1.724	1.570	1.600
August	10	1.548	1.564	1.840				1.999	2.062	2.033	2.025	2.058
September	6	1.102	1.058	1.168				1.318	1.346	1.351	1.344	1.348
October	11	1.886	1.936	2.171				2.513	2.622	2.597	2.608	2.646
November	8	0.246	0.246	0.518				0.617	0.717	0.667	0.700	0.713
December	15	1.631	1.708	2.097				2.513	2.878	3.033	2.944	2.976
Sums.....	123	12.538	13.018	15.713				18.123	19.625	20.293	19.613	20.107
Height of receiving Surface	{ above the ground } ...	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. 0.5
	{ above mean sea level } ...	ft. in. 205.6	ft. in. 205.6	ft. in. 193.2				ft. in. 176.4	ft. in. 164.10	ft. in. 155.3	ft. in. 155.3	ft. in. 155.3

ROYAL OBSERVATORY, GREENWICH.

OBSERVATIONS

OF

LUMINOUS METEORS.

1901.

OBSERVATIONS OF LUMINOUS METEORS,

Month and Day, 1901.		Greenwich Civil Time.	Observer.	Apparent Size 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.	No. for Reference.
February	14	h m s 8. 48. 0	A.C.	I	Red	3 ⁵	None	35	1
April	20	21. 5. 25	C.	2	Bluish-white	1 ⁰	None	5	2
"	21. 53. 3	S.	I	Bluish-white	1 ⁵	Brilliant	20	3	
"	21. 57. 34	S.	I	Bluish-white	1 ⁰	Slight	20	4	
"	22. 58. 26	S.	I	Bluish-white	1 ⁰	Slight	10	5	
"	23. 7. 28	C.	2	Bluish-white	1 ⁰	Broken	10	6	
"	23. 33. 33	S.	I	Reddish	1 ⁰	Slight	10	7	
"	23. 35. 24	C.	I	Bluish-white	1 ⁵	Long	15	8	
"	23. 38. 57	S.	2	Bluish-white	0 ⁵	None	5	9	
"	23. 49. 6	S.	2	Bluish-white	1 ⁰	None	5	10	
April	21	20. 31. 6	S.	I	Bluish-white	1 ⁰	Long : bright	10	11
"	20. 47. 52	S.	I	Bluish-white	0 ⁵	None	5	12	
"	20. 48. 50	P.	I	Bluish-white	1 ⁰	None	10	13	
"	21. 7. 28	P.	I	Bluish-white	0 ⁵	None	5	14	
"	21. 18. 50	S.&P.	I	Bluish-white	1 ⁵	Slight	15	15	
"	21. 29. 53	P.	I	Bluish-white	0 ⁵	None	5	16	
"	21. 49. 29	S.	I	Bluish-white	1 ⁰	Bright	5	17	
"	21. 54. 52	P.	I	Bluish-white	2 ⁵	Brilliant	20	18	
"	22. 1. 55	S.	I	Bluish-white	0 ⁷	Bright	10	19	
"	22. 8. 0	S.	I	Bluish-white	1 ⁰	Bright	15	20	
"	22. 12. 5	S.	I	Bluish-white	1 ⁰	Brilliant	20	21	
"	22. 18. 32	S.	I	Bluish-white	1 ⁰	Bright	10	22	
"	22. 39. 48	S.	I	Bluish-white	1 ⁰	Bright	10	23	
"	23. 1. 40	S.	I	Bluish-white	1 ⁵	Bright	15	24	
"	23. 9. 35	P.	I	Bluish-white	1 ⁰	None	10	25	
"	23. 56. 46	S.	I	Bluish-white	2 ⁰	Brilliant	25	26	
April	22	0. 3. 41	S.	I	Bluish-white	1 ⁵	Bright	15	27
"	0. 13. 55	S.&P.	I	Bluish-white	1 ⁰	Bright	10	28	
"	0. 15. 30	P.	I	Bluish-white	1 ⁰	Brilliant	10	29	
"	0. 21. 34	P.	I	Bluish-white	1 ⁵	Brilliant	5	30	
"	0. 28. 3	S.	I	Bluish-white	0 ⁵	Slight	5	31	
"	0. 28. 8	P.	I	Bluish-white	1 ⁵	Bright	10	32	
"	0. 33. 3	P.	I	Bluish-white	1 ⁰	Slight	5	33	
"	0. 34. 16	P.	I	Bluish-white	1 ⁰	Brilliant	5	34	
"	0. 41. 7	P.	I	Bluish-white	1 ⁰	Slight	5	35	
"	1. 4. 9	S.&P.	>I	Bluish-white	2 ⁵	Bright	15	36	
April	23	0. 12. 40	S.	I	Bluish-white	2 ⁰	Bright	10	37
"	0. 13. 36	P.	I	Bluish-white	1 ⁰	Bright	5	38	
"	0. 36. 1	P.	I	Bluish-white	1 ⁰	Bright	10	39	
"	0. 47. 49	S.&P.	I	Bluish-white	1 ⁵	Bright	15	40	
"	1. 0. 25	S.	I	Bluish-white	1 ⁰	Slight	5	41	
"	1. 3. 46	P.	I	Bluish-white	2 ⁰	Bright	15	42	
"	1. 15. 36	P.	I	Bluish-white	1 ⁰	Bright	5	43	
"	1. 30. 19	S.	I	Bluish-white	1 ⁰	Bright	10	44	
April	26	21. 3. 47	S.&P.	>I	Bluish	4 ⁵	Very brilliant	15	45
August	8	22. 57. 0	S.	>I	Bluish-white	2 ⁰	Brilliant	15	46
August	9	21. 17. 45	S.	I	Bluish-white	0 ⁵	None	5	47
"	21. 28. 5	S.	I	Bluish-white	1 ⁰	None	5	48	
"	21. 34. 32	W.P.	I	Bluish-white	0 ⁵	None	5	49	

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

No. for Reference.	Path of Meteor through the Stars.
1	From Piazzi IV. 75 to a point beyond α Ursæ Majoris.
2	From ϵ Leonis towards δ Leonis.
3	From α Lyrae towards ω Coronæ.
4	From α Lyrae towards ϵ Coronæ.
5	From γ Draconis towards η Draconis.
6	From τ Herculis towards η Ursæ Majoris.
7	From ϵ Lyrae to δ Cygni.
8	From κ Cygni towards β Cephei.
9	From ϵ Lyrae towards κ Cygni.
10	From ζ Lyrae towards δ Cygni.
11	From B ² Lyrae towards ϵ Draconis.
12	From γ Draconis to a point a little below ξ Draconis.
13	From θ Cygni towards π Draconis.
14	From a point midway between π and μ Herculis towards β Herculis.
15	From 46 Draconis to ζ Cygni.
16	From B ³ Herculis to β Cygni.
17	From γ Lyrae to β Cygni.
18	From α Lyrae to γ Ursæ Minoris.
19	From α Herculis towards η Ophiuchi.
20	From α Ophiuchi to a point midway between η and ζ Ophiuchi.
21	From μ Lyrae to α Draconis.
22	From ι Herculis towards ι Draconis.
23	From ξ Draconis towards γ Ursæ Minoris.
24	From β Lyrae towards Polaris.
25	From ξ Ursæ Majoris to a point midway between γ and ζ Leonis.
26	From α Lyrae to α Coronæ.
27	From α Lyrae to a point a little beyond α Cygni.
28	From ϵ Lyrae towards β Cygni.
29	From ζ Lyrae to a point a little beyond γ Lyrae.
30	From ϵ Lyrae towards α Cygni.
31	From α Lyrae towards ϵ Herculis.
32	From τ Coronæ to a point midway between ϵ and α Böötis.
33	From ϵ Lyrae towards δ Cygni.
34	From β Coronæ towards ξ Böötis.
35	From ξ Coronæ to a point midway between α and β Coronæ.
36	From α Lyrae towards η Serpentis.
37	From μ Lyrae towards β Herculis.
38	From γ Lyrae towards β Cygni.
39	From a point midway between γ and β Draconis to a point a little beyond η Draconis.
40	From α Lyrae towards δ Draconis.
41	From 13 Lyrae towards γ Draconis.
42	From β Lyrae towards β Ophiuchi.
43	From ζ Cephei towards ι Cephei.
44	From δ Cygni towards π Cygni.
45	From a point midway between α Herculis and α Ophiuchi moved slowly towards β Lyrae.
46	From a point midway between α and β Cassiopeiae towards ξ Cygni.
47	From α Lyrae towards θ Herculis.
48	From 54 Draconis towards β Lyrae.
49	From α Andromedæ to a point a little beyond χ Pegasi.

OBSERVATIONS OF LUMINOUS METEORS,

Month and Day, 1901	Greenwich Civil Time.	Observer.	Apparent Size 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.	No. for Reference.
August 9	h m s				s		°	
	21. 35. 24	S.	1	Bluish-white	1·0	Slight	10	1
	21. 40. 49	W.P.	> 1	Bluish-white	1·5	None	5	2
	21. 41. 1	S.	> 1	Bluish-white	2·5	Bright	15	3
	21. 57. 36	W.P.	> 1	Bluish-white	1·0	Bright	10	4
	22. 12. 24	S.&W.P.	1	Bluish-white	3·0	Long : brilliant	15	5
	22. 18. 32	W.P.	1	Bluish-white	1·5		15	6
	22. 22. 22	W.P.	1	Bluish-white	1·0	Bright	10	7
	22. 23. 35	S.	1	Bluish-white	3·0	Bright	15	8
	23. 12. 2	W.P.	1	Bluish-white	1·0	Bright	10	9
	23. 19. 55	W.P.	1	Bluish-white	1·0	Faint	10	10
	23. 26. 30	S.&W.P.	1	Bluish-white	2·5	Bright	15	11
	23. 35. 13	W.P.	1	Bluish-white	2·0	Brilliant	20	12
	23. 39. 10	W.P.	1	Bluish-white	1·0	Faint	15	13
	23. 49. 41	S.	1	Bluish-white	0·5	Slight	10	14
	23. 51. 35	S.	1	Bluish-white	1·5	Bright	5	15
	23. 54. 17	S.	2	Bluish-white	1·0	Bright	10	16
	23. 58. 15	S.&W.P.	> 1	Bluish-white	1·0	None	5	17
August 10	o. 3. 6	S.	1	Bluish-white	1·5	Slight	10	18
	o. 15. 8	S.	1	Bluish-white	2·0	Bright	15	19
	o. 46. 51	W.P.	1	Bluish-white	1·5	None	10	20
	o. 49. 47	W.P.	1	Bluish-white	1·0	Slight	10	21
	o. 53. 52	W.P.	1	Bluish-white	1·0	None	5	22
	o. 58. 33	W.P.	1	Bluish-white	1·0	None	10	23
	o. 58. 58	S.	1	Bluish-white	1·0	None	5	24
	1. 8. 37	S.	1	Bluish-white	1·5	Slight	5	25
	1. 15. 44	W.P.	1	Bluish-white	1·0	Slight	10	26
	1. 19. 56	S.	1	Bluish-white	1·5	Slight	10	27
	1. 24. 54	W.P.	1	Bluish-white	1·0	None	10	28
	1. 34. 58	S.&W.P.	> 1	Bluish	2·0	Brilliant	20	29
	1. 46. 56	W.P.	1	Bluish-white	0·5	None	10	30
	1. 51. 5	W.P.	1	Bluish-white	1·5	Bright	15	31
	2. 7. 48	S.	> 1	Bluish-white	2·0	Brilliant	15	32
	2. 13. 21	S.&W.P.	> 1	Bluish-white	3·0	Bright	15	33
	2. 18. 38	S.&W.P.	> 1	Bluish-white	2·5	Brilliant	20	34
	2. 21. 47	W.P.	1	Bluish-white	1·5	Slight	10	35
	2. 24. 20	S.	1	Bluish-white	1·0	Broken	10	36
	2. 28. 43	W.P.	1	Bluish-white	0·5	None	5	37
	21. 26. 35	W.P.	1	Bluish-white	1·0	Slight	10	38
	21. 49. 47	W.P.	1	Bluish-white	1·0	None	10	39
	21. 53. 1	W.P.	1	Bluish-white	1·0	Slight	10	40
	22. 0. 15	W.P.	1	Bluish-white	1·5	Slight	10	41
	22. 5. 8	S.&W.P.	1	Bluish-white	1·5	None	10	42
	22. 12. 43	S.&W.P.	1	Bluish-white	1·0	None	10	43
	22. 17. 27	S.&W.P.	> 1	Bluish-white	2·0	Bright	15	44
	22. 23. 18	S.	> 1	Bluish-white	3·0	Brilliant	20	45
	22. 37. 12	S.&W.P.	1	Bluish-white	2·0	Bright	15	46
	22. 41. 9	B.	1	Bluish-white	1·0	None	5	47
	22. 45. 41	W.P.	> 1	Bluish-white	2·0	Slight	15	48
	22. 45. 48	E.	3	Bluish-white	1·0	Slight	5	49
	22. 58. 38	S.&W.P.	> 1	Bluish-white	2·0	Bright : long	15	50
	23. 24. 6	W.P.	1	Bluish-white	1·5		10	51
	23. 24. 59	S.	1	Bluish-white	2·0	Bright : long	15	52
	23. 26. 11	B.	1	Bluish-white	2·0		10	53
	23. 32. 43	W.P.	1	Bluish-white	1·0	Bright	10	54
	23. 33. 38	S.	1	Bluish-white	1·5	Bright	10	55
	23. 33. 51	W.P.	1	Bluish-white	1·0	None	10	56
	23. 48. 56	W.S.	1	Bluish-white	1·0	Broken	15	57
	23. 49. 54	W.P.	1	Bluish-white	1·5	None	10	58
	23. 50. 2	W.P.	1	Bluish-white	1·0	None	5	59
	23. 53. 26	W.S.	3	White	1·5	Faint	20	60
	23. 54. 29	S.	> 1	Bluish-white	3·0	Long	60	61
	23. 56. 24	W.P.	> 1	White	1·5	Bright	10	62

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

No. for Reference.	Path of Meteor through the Stars.
1	From β Andromedæ towards γ Pegasi.
2	From γ Andromedæ towards α Trianguli.
3	From α Camelopardali towards 16 Ursæ Majoris.
4	From γ Cassiopeiae towards β Cephei.
5	From ϵ Cassiopeiae towards β Cephei.
6	From α Persei towards β Tauri.
7	From γ Andromedæ to τ Piscium.
8	From β Ursæ Minoris towards 10 Draconis.
9	From γ Cassiopeiae to α Camelopardali.
10	From γ Pegasi towards 29 Piscium.
11	From γ Andromedæ to α Andromedæ.
12	From β Andromedæ towards ζ Pegasi.
13	From β Andromedæ towards α Pegasi.
14	From a point midway between α and β Andromedæ towards α Arietis.
15	From β Andromedæ to α Andromedæ.
16	From 82 Piscium to γ Pegasi.
17	From ν Andromedæ towards γ Pegasi.
18	From α Persei towards β Trianguli.
19	From Piazzi II. 236 towards Polaris.
20	From ϵ Ursæ Majoris towards α Canum Venaticum.
21	From γ Cassiopeiae towards α Cephei.
22	From γ Ursæ Minoris towards η Draconis.
23	From γ Draconis towards B^3 Herculis.
24	From γ Draconis towards θ Herculis.
25	From β Ursæ Minoris towards a point midway between ι and α Draconis.
26	From α Persei towards β Trianguli.
27	From β Ursæ Minoris towards θ Boötis.
28	From β Ursæ Minoris towards ϵ Draconis.
29	From γ Andromedæ towards a point midway between α Andromedæ and α Pegasi.
30	From Polaris towards a point midway between α and κ Draconis.
31	From α Persei towards θ Persei.
32	From α Arietis towards α Piscium.
33	From α Persei towards A Tauri.
34	From β Andromedæ to a point a little beyond α Pegasi.
35	From β Persei to a point midway between α and β Andromedæ.
36	From Piazzi IX. 37 towards κ Draconis.
37	From a point a little to the N. of Polaris towards θ Ursæ Minoris.
38	From τ Piscium towards γ Pegasi.
39	From γ Lyrae towards α Herculis.
40	From γ Boötis towards α Boötis.
41	From γ Boötis towards α Boötis.
42	From β Boötis to a point a little beyond χ Boötis.
43	From β Andromedæ to a point a little beyond α Andromedæ.
44	From α Aquilæ towards Saturn. (R.A. = $18^{\text{h}}46^{\text{m}}$, N.P.D. = $112^{\circ}37'$.)
45	From α Andromedæ towards δ Delphini.
46	From α Ophiuchi towards η Ophiuchi.
47	From α Pegasi towards ζ Pegasi.
48	From θ Pegasi towards β Aquarii.
49	From δ Cassiopeiae towards 54 Andromedæ.
50	From α Lyrae towards χ Herculis.
51	From θ Pegasi towards β Aquarii.
52	From α Cassiopeiae towards 72 Cygni.
53	From δ Andromedæ towards α Pegasi.
54	From β Ursæ Minoris towards Polaris.
55	From ζ Cephei to a point midway between γ and δ Cygni.
56	From θ Pegasi towards β Aquarii.
57	From δ Aquilæ towards λ Aquilæ.
58	From α Aquilæ to a point a little beyond δ Aquilæ.
59	From α Ophiuchi towards Piazzi XVII. 112.
60	From α Andromedæ towards α Pegasi.
61	From α Persei towards α Cygni.
62	From 72 Ophiuchi towards ζ Serpentis.

OBSERVATIONS OF LUMINOUS METEORS.

Month and Day, 1901.		Greenwich Civil Time.	Observer.	Apparent Size 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.	No. for Reference.
August	II	h m s				s		o	
	"	0. 0. 50	W.P.	1	Bluish-white	2'0	None	10°	1
	"	0. 1. 42	S.	2	Bluish-white	0'5	None	10°	2
	"	0. 2. 0	S.	1	Bluish-white	1'0	Very bright	20°	3
	"	0. 2. 21	S.	1	Bluish-white	0'5	None	10°	4
	"	0. 3. 52	W.P.	2	White	1'0	Slight	5°	5
	"	0. 6. 43	W.P.	1	Bluish-white	1'0	Bright	10°	6
	"	0. 7. 53	E.	2	Bluish-white	1'0	Bright	10°	7
	"	0. 11. 28	W.P.	1	Bluish-white	1'0	None	10°	8
	"	0. 18. 30	E.	2	Bluish-white	1'0	Slight	8°	9
	"	0. 19. 28	S.	1	Bluish-white	2'5	Long : bright	25°	10
	"	0. 20. 44	E.&W.P.	1	Bluish-white	1'5	Slight	15°	11
	"	0. 25. 49	E.&S.	1	Bluish-white	1'0	Very bright	10°	12
	"	0. 28. 1	S.&W.P.	1	Bluish-white	1'5	Very bright	5°	13
	"	0. 29. 21	W.P.	1	Bluish-white	2'0	Bright	15°	14
	"	0. 36. 44	E.	1	Bluish-white	0'5	Bright	7°	15
	"	0. 37. 50	S.	1	Bluish-white	1'0	Slight	10°	16
	"	0. 41. 45	W.P.	1	Bluish-white	1'0	None	5°	17
	"	0. 42. 23	E.&S.	1	Bluish-white	1'5	Bright	10°	18
	"	0. 44. 39	E.	2	Bluish-white	2'0	Bright	15°	19
	"	0. 46. 57	W.P.	2	Bluish-white	1'0	Very faint	5°	20
	"	0. 51. 26	B.	2	Bluish-white	0'5	None	5°	21
	"	0. 54. 3	S.&W.P.	1	Bluish-white	1'0	...	10°	22
	"	0. 54. 7	W.P.	1	Bluish-white	1'0	Slight	10°	23
	"	0. 59. 48	W.P.	>1	White	2'0	Brilliant	20°	24
	I.	2. 42	S.&W.P.	1	Bluish	1'0	Bright	10°	25
	"	1. 5. 20	S.	1	Bluish-white	0'5	Bright	15°	26
	"	1. 7. 22	W.P.	1	Bluish-white	1'5	Bright	20°	27
	"	1. 12. 3	W.P.	>1	Bluish-white	1'5	Brilliant	15°	28
	"	1. 12. 42	S.	1	Bluish-white	1'5	Very bright	15°	29
	"	1. 12. 59	W.P.&B.	1	Bluish-white	1'0	Bright	7°	30
	"	1. 22. 44	S.&W.P.	>1	Bluish-white	1'5	Brilliant:	20°	31
	"	1. 24. 41	W.P.	1	Bluish-white	1'5	very long.		
	"	1. 24. 49	S.	1	Bluish-white	1'0	Bright	15°	32
	"	1. 27. 6	S.&B.	1	Bluish-white	1'0	Slight	10°	33
	"	1. 27. 7	S.&B.	1	Bluish-white	1'0	Bright	10°	34
	"	1. 28. 44	W.P.	>1	Bluish-white	1'0	Bright	10°	35
	"	1. 37. 24	S.	1	Bluish-white	1'5	Bright	15°	36
	"	1. 38. 47	W.P.	1	Bluish-white	1'5	Bright	20°	37
	"	1. 45. 39	S.	1	Bluish-white	1'5	Slight	15°	38
	"	1. 47. 9	S.	1	Bluish-white	1'5	Bright	20°	39
	"	1. 54. 10	W.P.	1	Bluish-white	1'5	None	15°	40
	"	1. 54. 11	W.P.	1	Bluish	1'5	Slight	15°	41
	"	1. 56. 40	S.	1	Bluish-white	1'0	Slight	10°	42
	"	1. 56. 44	S.	2	Bluish-white	0'5	None	5°	43
	"	2. 3. 59	S.	1	Bluish-white	1'0	Bright	15°	44
	"	2. 7. 19	S.&W.P.	1	Bluish-white	2'0	Long : bright	20°	45
	"	2. 11. 23	W.P.	1	Bluish-white	1'5	Bright	15°	46
	"	2. 11. 55	W.P.	1	White	1'5	Bright	15°	47
	"	2. 14. 50	S.	1	Bluish-white	1'0	Long	15°	48
	"	2. 18. 19	W.P.	2	Bluish-white	1'0	Bright	10°	49
	"	2. 18. 47	S.	1	Bluish-white	1'0	Bright	20°	50
	"	2. 18. 48	S.&W.P.	>1	Bluish-white	2'0	Brilliant	15°	51
	"	2. 19. 47	S.	2	Bluish-white	0'5	None	10°	52
	"	2. 20. 8	S.	1	Bluish-white	1'0	Slight	7°	53
	"	2. 21. 12	S.	>1	Bluish-white	3'0	Bright	10°	54
	"	2. 31. 26	W.P.	1	changing to white				55
	"	2. 31. 39	W.P.	1	Bluish-white	1'0	None	10°	56
	"	2. 35. 34	S.	1	Bluish-white	1'5	None	10°	57
	"	2. 36. 34	W.P.	1	Bluish-white	1'0	Very bright	15°	58
	"	2. 38. 34	W.P.	1	Bluish-white	1'5	Bright	10°	59
	"	2. 42. 10	W.P.	1	Bluish-white	1'0	Bright	10°	60
	"	2. 44. 12	S.&W.P.	1	Bluish-white	1'0	None	10°	61
	"	2. 47. 6	W.P.	1	Bluish-white	1'0	Very bright	15°	62
	"						Faint	10°	63

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

No. for Reference.	Path of Meteor through the Stars.
1	From ζ Draconis towards τ Herculis.
2	From γ Andromedæ towards α Andromedæ.
3	From μ Andromedæ towards η Pegasi.
4	From β Andromedæ towards α Andromedæ.
5	From ζ Draconis towards θ Draconis.
6	From γ Piscium towards δ Aquarii.
7	From a point near ψ Pegasi towards γ Pegasi.
8	From θ Pegasi towards θ Aquarii.
9	From Polaris towards γ Ursæ Minoris.
10	From Polaris towards α Lyrae.
11	From a point midway between α Andromedæ and γ Pegasi towards α Pegasi.
12	From γ Cassiopeiae towards μ Cassiopeiae.
13	From δ Andromedæ towards ι Piscium.
14	From θ Andromedæ towards α Pegasi.
15	From a point a little above α Persei towards β Camelopardali.
16	From a point midway between α and β Pegasi towards γ Pegasi.
17	From θ Persei towards β Persei.
18	From a point near the Pleiades towards χ Tauri.
19	From ξ Arietis towards λ Ceti.
20	From a point midway between γ and γ Andromedæ to a point between μ and β Andromedæ.
21	From α Persei towards δ Andromedæ.
22	From μ Andromedæ towards ψ Pegasi.
23	From α Andromedæ towards α Pegasi.
24	From ϵ Piscium towards β Ceti.
25	From γ Trianguli towards ψ Piscium.
26	From γ Andromedæ towards α Andromedæ.
27	From γ Cephei towards a point near α Ursæ Majoris.
28	From a point midway between α Andromedæ and α Pegasi towards θ Pegasi.
29	From β Andromedæ towards γ Pegasi.
30	From α Piscium towards ζ Ceti.
31	From ϵ Andromedæ towards γ Pegasi.
32	From a point midway between β and γ Trianguli towards γ Pegasi.
33	From γ Pegasi towards ξ Pegasi.
34	From α Arietis towards ξ Piscium.
35	From α Arietis towards α Piscium.
36	From δ Andromedæ towards α Pegasi.
37	From β Andromedæ towards γ Pegasi.
38	From γ Andromedæ towards γ Pegasi.
39	From α Persei towards ϵ Andromedæ.
40	From α Persei towards ϵ Persei.
41	From α Andromedæ towards ξ Pegasi.
42	From δ Andromedæ towards α Pegasi.
43	From ϕ Cassiopeiae towards γ Cephei.
44	From α Persei towards π Persei.
45	From β Andromedæ towards γ Pegasi.
46	From β Camelopardali towards θ Ursæ Majoris.
47	From θ Piscium towards ϕ Aquarii.
48	From ϵ Piscium towards θ Pegasi.
49	From α Andromedæ towards ζ Pegasi.
50	From ζ Pegasi towards γ Aquarii.
51	From α Persei towards Polaris.
52	From α Lyrae towards δ Herculis.
53	From β Andromedæ to a point a little to the west of α Andromedæ.
54	From α Persei to a point a little beyond β Persei.
55	From θ Ceti burst into three pieces and travelled slowly towards β Ceti.
56	From ϵ Piscium towards ϕ Aquarii.
57	From η Aquarii towards δ Capricorni.
58	From α Persei towards ζ Tauri.
59	From δ Piscium towards θ Ceti.
60	From θ Ceti to τ Ceti.
61	From β Andromedæ to a point midway between α and β Arietis.
62	From α Arietis towards ξ Piscium.
63	From γ Persei towards κ Cassiopeiae.

OBSERVATIONS OF LUMINOUS METEORS,

Month and Day, 1901.		Greenwich Civil Time.	Observer.	Apparent Size 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.	No. for Reference.
August	11	h m s 2. 48. 11	S.	1	Bluish-white	8	Bright	15	1
	"	2. 55. 57	S.	1	Bluish-white	1.5	Bright	15	2
	"	2. 58. 14	S.&W.P.	>1	Bluish-white fading to white	2.0	Brilliant	10	3
	"	21. 24. 27	S.&W.P.	>1	Bluish-white	2.0	Long : bright	20	4
	"	21. 25. 53	S.	>1	Bluish-white	1.5	Bright	15	5
	"	21. 27. 25	W.P.	1	Bluish-white	1.0	Slight	20	6
	"	21. 27. 29	W.P.	>1	Bluish	1.5	Brilliant	20	7
	"	21. 31. 48	S.	1	Bluish-white	1.0	Bright	15	8
	"	21. 33. 1	S.	1	Bluish-white	1.0	Bright	10	9
	"	21. 42. 17	S.	1	Bluish-white	1.0	Bright	10	10
	"	21. 45. 46	S.&W.P.	1	Bluish-white	1.0	Bright	15	11
	"	21. 49. 17	W.P.	>1	Bluish-white	1.0	Bright	15	12
	"	22. 1. 42	S.&W.P.	>1	White	2.0	Brilliant	10	13
August	12	0. 25. 39	W.P.	1	Bluish-white	1.0	None	10	14
	"	0. 26. 21	S.	1	Bluish-white	1.5	Bright	10	15
	"	0. 40. 14	W.P.	1	Bluish-white	1.0	Slight	10	16
	"	0. 41. 18	S.	1	Bluish-white	2.0	Bright	15	17
	"	0. 50. 13	S.	1	Bluish-white	1.5	Bright	15	18
	"	0. 50. 40	S.	>1	Bluish-white	3.0	Long : bright	25	19
	"	0. 58. 31	S.	>1	White	1.5	Long : bright	15	20
	"	0. 58. 32	S.	>1	Bluish-white	1.5	Long : bright	15	21
	"	0. 58. 33	S.	>1	White	1.5	Long : bright	15	22
	"	1. 3. 11	W.P.	1	Bluish-white	1.5	Bright	10	23
	"	1. 5. 34	S.	>1	Bluish-white	3.5	Long : bright	25	24
	"	1. 6. 40	W.P.	1	Bluish-white	1.5	Slight	10	25
	"	1. 7. 1	W.P.	>1	Bluish-white	2.0	Bright	15	26
	"	1. 12. 28	W.P.	>1	Bluish-white	1.5	Bright	15	27
	"	1. 13. 23	S.	1	Bluish-white	1.0	Bright	10	28
	"	1. 14. 7	S.	1	Bluish-white	1.5	Bright	10	29
	"	1. 16. 47	S.&W.P.	>1	Bluish-white	2.5	Brilliant	20	30
	"	1. 16. 54	W.P.	1	Bluish-white	1.5	Slight	10	31
	"	1. 21. 44	S.&W.P.	>1	Bluish-white	2.5	Long : brilliant	25	32
	"	1. 22. 10	W.P.	1	Bluish-white	1.0	Slight	10	33
	"	1. 26. 8	W.P.	1	Bluish-white	1.5	Bright	10	34
	"	1. 26. 9	W.P.	>1	Bluish-white	2.0	Brilliant	15	35
	"	1. 28. 49	W.P.	1	Bluish-white	1.0	Bright	15	36
	"	1. 30. 29	S.	1	Bluish-white	1.5	Bright	15	37
	"	1. 31. 26	S.	>1	Bluish-white	1.5	Brilliant	20	38
	"	1. 40. 37	W.P.	>1	White	2.0	Brilliant	15	39
	"	1. 47. 8	S.	>1	Bluish-white	2.5	Brilliant	20	40
	"	1. 50. 41	S.	1	Bluish-white	1.5	Bright	15	41
	"	1. 53. 27	S.	1	Bluish-white	1.0	Bright	15	42
	"	1. 56. 42	S.	1	Bluish-white	1.0	Bright	10	43
	"	2. 2. 28	S.	1	White	1.5	Slight	10	44
	"	2. 5. 6	S.&W.P.	>1	White	2.0	Very bright	15	45
	"	2. 8. 26	S.	>1	Bluish-white	2.0	Very bright	25	46
	"	2. 10. 55	S.	1	Bluish-white	1.0	Very bright	20	47
	"	2. 13. 24	S.	1	Bluish-white	1.5	Very bright	20	48
	"	2. 15. 51	S.	2	Bluish-white	0.5	Slight	10	49
	"	2. 17. 53	S.	1	Bluish-white	1.0	Bright	10	50
	"	2. 20. 54	S.	>1	White	2.5	Brilliant	20	51
	"	2. 24. 59	S.	>1	Bluish-white	3.0	Brilliant	25	52
	"	2. 27. 19	S.	>1	Bluish-white	1.5	Brilliant	20	53
	"	2. 31. 20	S.	1	Bluish-white	1.0	Bright	15	54
	"	2. 33. 31	S.	>1	Bluish-white	1.5	Bright	10	55
	"	2. 37. 23	S.	>1	White	2.0	Brilliant	15	56
	"	2. 41. 27	S.	>1	White	1.5	Brilliant	15	57
	"	2. 45. 44	S.	1	Bluish-white	1.0	Bright	15	58
	"	2. 46. 16	S.	>1	White	1.5	Very bright	15	59
	"	2. 48. 43	S.&W.P.	>1	Bluish	1.5	Brilliant	10	60
	"	2. 53. 10	S.	1	Bluish-white	1.0	Bright	15	61
	"	2. 54. 17	S.&W.P.	>1	Bluish	1.0	Very bright	10	62
	"	2. 59. 36	S.	>1	Bluish-white	1.5	Very bright	15	63

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

No. for Reference.	Path of Meteor through the Stars.
1	From ψ Piscium towards δ Piscium.
2	From α Pegasi towards α Aquarii.
3	From β Aquarii moved in a westerly direction and burst shortly before reaching the horizon.
4	From a point midway between γ and β Andromedæ towards α Lyrae.
5	From α Aquilæ towards Saturn. (R.A. = $18^h 46^m$, N.P.D. = $112^\circ 37'$.)
6	From β Pegasi towards θ Aquilæ.
7	From β Pegasi towards θ Aquilæ.
8	From β Pegasi towards ϵ Pegasi.
9	From β Andromedæ towards β Pegasi.
10	From μ Cygni towards γ Delphini.
11	From α Cephei towards α Lyrae.
12	From β Pegasi towards ϵ Pegasi.
13	From μ Andromedæ towards ψ Pegasi.
14	From δ Piscium towards ι Ceti.
15	From α Andromedæ towards α Pegasi.
16	From η Piscium towards θ Ceti.
17	From α Pegasi towards θ Aquarii.
18	From α Persei towards Aldebaran.
19	From α Persei towards α Pegasi.
20	From α Andromedæ towards θ Aquarii.
21	From α Andromedæ towards ζ Aquarii.
22	From α Andromedæ towards α Aquarii.
23	From ξ Ceti towards ζ Ceti.
24	From α Persei towards Polaris.
25	From δ Piscium towards θ Ceti.
26	From γ Andromedæ towards η Andromedæ.
27	From α Cygni towards ι Herculis.
28	From ξ Cygni towards α Aquilæ.
29	From α Pegasi towards a point midway between α and γ Aquarii.
30	From α Pegasi towards α Aquarii.
31	From β Pegasi towards γ Aquarii.
32	From α Persei towards a point midway between α and β Cephei.
33	From ξ Pegasi towards β Aquarii.
34	From γ Aquarii towards ζ Capricorni.
35	From η Aquarii towards θ Capricorni.
36	From α Andromedæ towards α Pegasi.
37	From β Pegasi towards ϵ Pegasi.
38	From η Pegasi towards γ Cygni.
39	From α Andromedæ towards ζ Pegasi.
40	From α Persei towards θ Geminorum.
41	From α Persei towards η Aurigæ.
42	From γ Pegasi towards δ Aquarii.
43	From β Andromedæ to a point midway between β and γ Pegasi.
44	From α Persei to a point a little beyond ζ Persei.
45	From γ Pegasi towards δ Aquarii.
46	From γ Andromedæ towards γ Piscium.
47	From γ Persei towards ι Cephei.
48	From γ Persei towards α Geminorum.
49	From γ Persei towards τ Andromedæ.
50	From ζ Persei towards τ Tauri.
51	From α Persei towards ψ Piscium.
52	From α Persei towards ϵ Orionis.
53	From α Persei towards Aldebaran.
54	From β Andromedæ towards δ Piscium.
55	From γ Andromedæ towards δ Andromedæ.
56	From α Persei towards ϵ Arietis.
57	From γ Pegasi towards δ Aquarii.
58	From α Persei towards β Aurigæ.
59	From α Persei towards Aldebaran.
60	From α Andromedæ towards ξ Pegasi.
61	From γ Andromedæ towards α Andromedæ.
62	From γ Persei towards ψ Cassiopeiae.
63	From α Persei towards η Arietis.

OBSERVATIONS OF LUMINOUS METEORS,

Month and Day, 1901.		Greenwich Civil Time.	Observer.	Apparent Size 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.	No. for Reference.
August	12	h m s 3. 7. 29	S.&W.P.	> I	Bluish-white changing to white	1'5	Brilliant	90	1
"		3. 14. 44	S.	> I	Bluish	1'0	Brilliant	20	2
"		3. 15. 5	S.	> I	White	1'5	Brilliant	20	3
"		3. 21. 34	S.&W.P.	> I	White	1'0	Brilliant	15	4
"		3. 25. 42	S.	I	Bluish-white	1'5	Bright	20	5
"		3. 31. 38	S.	> I	Bluish-white	2'0	Brilliant	40	6
"		21. 18. 18	S.	I	Bluish-white	1'0	Bright	90	7
"		21. 31. 45	W.P.	> I	Bluish-white	2'0	Brilliant : broken	15	8
"		21. 34. 3	W.P.	I	Bluish-white	1'5	Slight : broken	15	9
"		21. 35. 43	S.	2	Bluish-white	0'5	Broken	15	10
"		21. 35. 47	S.&W.P.	I	Bluish-white	1'5	Bright : broken	20	11
"		21. 42. 41	W.P.	2	Bluish-white	1'5	Slight	15	12
"		21. 45. 14	S.&W.P.	> I	Bluish-white	2'0	Brilliant	20	13
"		21. 50. 13	S., W.P. & B.	> I	Bluish-white	1'0	Very bright	10	14
"		21. 50. 28	S.	I	Bluish-white	0'5	Bright	15	15
"		22. 6. 42	S.&W.P.	> I	Bluish-white	1'0	Brilliant	20	16
"		22. 10. 18	S.&W.P.	> I	Bluish-white	1'0	Bright	15	17
"		22. 14. 33	S.	> I	Bluish-white	1'0	Bright	15	18
"		22. 16. 56	S.&B.	> I	Bluish-white	2'0	Very bright	20	19
"		22. 17. 0	S.&W.P.	> I	Bluish-white	2'0	Brilliant	25	20
"		22. 19. 21	S.	> I	Bluish	2'5	Brilliant	15	21
"		22. 24. 25	S.	I	Bluish-white	0'5	Bright	20	22
"		22. 28. 3	S.	> I	Bluish-white	2'0	Very bright : long	20	23
"		22. 29. 56	S.&W.P.	I	Bluish-white	0'5	Bright	20	24
"		22. 32. 23	S., W.P. & B.	> I	Bluish-white	2'5	Brilliant : long	15	25
"		22. 34. 35	W.P.	I	Bluish-white	1'0	Slight	15	26
"		22. 34. 43	S.&W.P.	> I	Bluish-white	1'5	Very bright	5	27
"		22. 37. 46	S.&W.P.	I	Bluish-white	1'0	Brilliant	15	28
"		22. 39. 23	S.	I	changing to white				
"		22. 40. 22	S.	I	Bluish-white	1'0	Bright	15	29
"		22. 41. 3	W.P.	I	Bluish-white	1'0	Very bright	15	30
"		22. 43. 31	W.P.	2	Bluish-white	1'0	Very bright	10	31
"		22. 45. 8	S.	I	Bluish-white	1'0	Slight	10	32
"		22. 45. 22	W.P.	> I	Bluish-white	1'5	Bright	10	33
"		22. 46. 0	W.P.	> I	Bluish-white	2'0	Brilliant	15	34
"		22. 50. 47	S.	2	Bluish-white	0'5	Brilliant	15	35
"		22. 51. 2	W.P.	> I	Bluish-white	1'5	Slight	15	36
"		22. 51. 49	W.P.	I	Bluish-white	1'5	Bright	10	37
"		22. 54. 24	S.	> I	Bluish-white	1'5	Slight	10	38
"		22. 55. 48	S.	> I	Bluish-white	1'0	Bright : long	20	39
"		22. 56. 3	W.P.	I	Bluish-white	1'5	Bright	20	40
"		22. 58. 11	S.&W.P.	I	White	0'5	Slight	15	41
"		22. 59. 38	* W.P.	I	Bluish-white	1'0	Bright	10	42
"		23. 0. 58	S.	I	Bluish-white	1'0	Brilliant	15	43
"		23. 1. 58	S.&W.P.	I	Bluish-white	0'5	Bright	10	44
"		23. 4. 20	W.P.	2	Bluish-white	1'0	Slight	10	45
"		23. 8. 32	W.P.	I	Bluish-white	1'0	Slight	10	46
"		23. 12. 1	B.	I	Bluish-white	1'5	Slight	10	47
"		23. 12. 6	S.	2	Yellowish-white	1'5	Slight	10	48
"		23. 15. 31	S.	I	Bluish-white	1'5	Bright	10	49
"		23. 16. 48	S.&B.	> I	Bluish-white	2'5	Very bright	30	50
"		23. 18. 19	W.P.	I	White	1'5	Slight	10	51
"		23. 19. 22	S.	> I	White	2'5	Very bright	20	52
"		23. 23. 16	W.P.	> I	Bluish-white	1'0	Bright	10	53
"		23. 26. 46	S.&B.	I	Bluish	1'5	Bright	20	54
"		23. 28. 29	S.	I	Bluish	1'0	Very bright	10	55
"		23. 33. 31	S.&B.	> I	changing to white				
"		23. 34. 11	S.&B.	I	Bluish-white	1'0	Very bright	25	56
"		23. 35. 44	S.&W.P.	> I	Bluish-white	2'0	Bright	15	57
"		23. 36. 28	S.	> I	Bluish-white	1'5	Bright	20	58
"		23. 39. 24	W.P.	> I	Bluish-white	4'0	Brilliant	10	59
"		23. 40. 17	S.	I	Bluish-white	1'5	Brilliant : broken	15	60

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

No. for Reference.	Path of Meteor through the Stars.
1	From α Persei to a point a little beyond ζ Persei.
2	From α Persei towards γ Tauri.
3	From α Persei towards the Moon. (R.A. = $7^h 28^m$; N.P.D. = $72^\circ 37'$.)
4	From α Persei towards κ Tauri.
5	From α Persei towards Polaris.
6	From α Persei towards ζ Cygni.
7	From α Cygni towards β Lyrae.
8	From α Ursæ Majoris towards β Canum Venaticæ.
9	From α Ursæ Majoris towards β Canum Venaticū.
10	From γ Cassiopeiae towards Polaris.
11	From α Cassiopeiae towards Polaris.
12	From Polaris towards β Ursæ Majoris.
13	From γ Cassiopeiae to a point a little beyond Polaris.
14	From ϕ Andromedæ towards α Andromedæ.
15	From α Cygni towards α Lyrae.
16	From Piazzi III. 7 to a point a little beyond Polaris.
17	From α Persei towards 24 Lyncis.
18	From α Lyrae towards α Ophiuchi.
19	From α Cygni towards ϵ Aquilæ.
20	From β Pegasi towards α Aquarii.
21	From α Aquilæ towards σ Sagittarii.
22	From ϵ Cygni towards α Aquilæ.
23	From γ Aquilæ towards Jupiter. (R.A. = $18^h 16^m$, N.P.D. = $113^\circ 28'$.)
24	From β Aquilæ to a point midway between Saturn, (R.A. = $18^h 46^m$, N.P.D. = $112^\circ 37'$) and Jupiter.
25	From ζ Lyrae to a point a little beyond α Ophiuchi.
26	From β Sagittarii towards γ Ophiuchi.
27	From ζ Aquilæ towards Jupiter. (R.A. = $18^h 16^m$, N.P.D. = $113^\circ 28'$.)
28	From 60 Andromedæ towards β Andromedæ.
29	From α Lyrae towards 54 Herculis.
30	From ψ Aquilæ to a point midway between δ and η Sagittarii.
31	From β Cassiopeiae towards π Pegasi.
32	From ι Pegasi towards γ Delphini.
33	From κ Lyrae towards α Herculis.
34	From β Andromedæ to a point midway between α and γ Pegasi.
35	From η Pegasi towards ϵ Pegasi.
36	From β Boötis to a point a little beyond ϵ Boötis.
37	From σ Andromedæ towards η Pegasi.
38	From θ Pegasi towards ν Aquarii.
39	From α Persei towards β Arietis.
40	From α Lyrae towards κ Ophiuchi.
41	From δ Andromedæ towards ϵ Piscium.
42	From α Pegasi towards 41 Aquarii.
43	From ι Andromedæ towards λ Pegasi.
44	From α Andromedæ towards ζ Pegasi.
45	From β Trianguli towards ϕ Piscium.
46	From 31 Pegasi towards ζ Aquarii.
47	From ξ Aquilæ towards η Serpentis.
48	From α Andromedæ towards α Pegasi.
49	From α Persei towards Piazzi II. 237.
50	From Piazzi III. 51 towards ϵ Cassiopeiae.
51	From β Cassiopeiae towards β Cygni.
52	From ι Herculis towards γ Herculis.
53	From 16 Piscium towards ι Ceti.
54	From α Aquilæ towards λ Aquilæ.
55	From γ Andromedæ towards Polaris.
56	From ι Persei towards γ Andromedæ.
57	From α Persei towards ψ Piscium.
58	From γ Persei towards β Trianguli.
59	From Polaris to a point midway between α and ι Draconis.
60	From α Aquilæ towards α Cygni.
61	From γ Cephei towards γ Ursæ Minoris.
62	From β Pegasi towards ϵ Pegasi.

OBSERVATIONS OF LUMINOUS METEORS,

Month and Day, 1901.		Greenwich Civil Time.	Observer.	Apparent Size 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.	No. for Reference.
August	12	23. 40. 19	S.	2	Bluish-white	8	None	2	1
	"	23. 42. 55	W.P.	1	Bluish-white	2.0	None	10	2
	"	23. 45. 6	S.	1	Bluish-white	1.5	Bright	15	3
	"	23. 48. 23	W.P.	> 1	Bluish-white	1.5	Bright	15	4
	"	23. 49. 18	S., W.P. & B.	1	Bluish-white	1.0	Bright	15	5
	"	23. 52. 55	W.P. & B.	> 1	White	2.0	Bright	15	6
	"	23. 55. 7	S.	> 1	Bluish-white	2.0	Very bright	15	7
	"	23. 58. 7	S. & W.P.	> 1	Bluish-white	2.0	Bright	25	8
	"	23. 59. 14	W.P.	1	Bluish-white	1.0	Bright	10	9
August	13	0. 2. 11	W.P.	1	Bluish-white	1.0	Bright	5	10
	"	0. 4. 17	S.	> 1	Bluish-white	3.0	Very bright : long	35	11
	"	0. 7. 9	S., W.P. & B.	> 1	Bluish-white	4.0	Very bright	30	12
	"	0. 11. 35	S. & B.	1	Bluish-white	1.5	Very bright	15	13
	"	0. 14. 39	B.	1	White	1.0	Very bright	10	14
	"	0. 18. 46	B.	1	Bluish-white	2.0	Brilliant : long	25	15
	"	0. 20. 22	S.	1	Bluish-white	1.0	None	10	16
	"	0. 21. 15	S.	> 1	White	1.5	Bright	10	17
	"	0. 23. 45	W.P.	2	Bluish-white	1.0	Slight	10	18
	"	0. 26. 45	B.	> 1	White	1.5	Bright	15	19
	"	0. 27. 5	W.P.	1	Bluish-white	1.0	Bright	15	20
	"	0. 29. 14	S.	> 1	White	1.0	Very bright	15	21
	"	0. 29. 23	S.	1	Bluish-white	1.5	Bright	15	22
	"	0. 30. 3	S.	1	Bluish-white	1.0	Bright	10	23
	"	0. 35. 29	S.	> 1	Bluish-white	2.5	Bright : long	20	24
	"	0. 39. 17	S.	1	Bluish-white	1.0	Bright	15	25
	"	0. 40. 23	W.P.	2	Bluish-white	1.0	Slight	15	26
	"	0. 41. 28	S. & B.	> 1	White	3.0	Brilliant	20	27
	"	0. 43. 11	W.P.	> 1	Bluish-white	2.0	Bright	20	28
	"	0. 45. 7	B.	1	Bluish-white	1.0	Bright	10	29
	"	0. 45. 53	S. & W.P.	> 1	Bluish-white	3.0	Brilliant : long	30	30
	"	0. 46. 50	B.	> 1	Bluish-white	2.5	Bright	20	31
	"	0. 48. 48	S.	1	Bluish-white	1.5	Faint	20	32
	"	0. 49. 28	W.P.	> 1	Bluish-white	0.5	Slight	5	33
	"	0. 51. 33	S.	1	Bluish-white	1.0	Bright	10	34
	"	0. 51. 37	B.	2	Bluish-white	1.5	Bright	10	35
	"	0. 54. 49	W.P.	1	Bluish-white	1.5	Bright	10	36
	"	0. 55. 6	B.	1	White	2.5	Brilliant	30	37
	"	0. 57. 57	S. & W.P.	1	Bluish-white	1.5	Faint	15	38
	"	0. 58. 10	S.	1	Bluish-white	1.5	Bright	20	39
	"	I. 2. 0	S., W.P. & B.	1	White	2.0	Brilliant	20	40
	"	I. 3. 45	B.	> 1	Bluish-white	1.5	Bright	20	41
	"	I. 3. 50	S.	1	Bluish-white	1.0	Bright	15	42
	"	I. 3. 54	S.	> 1	Bluish-white	1.0	Bright	10	43
	"	I. 4. 35	W.P.	1	Bluish-white	1.0	Bright	10	44
	"	I. 4. 54	S. & W.P.	> 1	Bluish-white	1.0	Bright	15	45
	"	I. 6. 46	S.	> 1	Bluish-white	1.5	Bright	15	46
	"	I. 6. 58	W.P.	1	Bluish-white	1.0	Bright	10	47
	"	I. 7. 40	S.	1	White	2.0	Brilliant : long	15	48
	"	I. 8. 20	W.P.	> 1	Bluish-white	1.5	Bright	10	49
	"	I. 8. 34	W.P.	> 1	Bluish-white	1.5	Brilliant	15	50
	"	I. 11. 15	S.	1	Bluish-white	2.0	Brilliant	10	51
	"	I. 11. 57	S.	> 1	Bluish-white	1.5	Brilliant	15	52
	"	I. 16. 34	S.	1	Bluish	1.5	Brilliant	15	53
	"	I. 17. 37	S.	> 1	Bluish-white	1.0	Bright	15	54
	"	I. 18. 16	S. & W.P.	> 1	Bluish-white	2.0	Brilliant	20	55
	"	I. 20. 31	S.	1	Bluish-white	1.5	Bright	15	56
	"	I. 23. 22	S.	> 1	Bluish-white	1.5	Bright	10	57
	"	I. 24. 19	W.P.	1	Bluish-white	1.0	Bright	10	58
	"	I. 25. 6	S.	1	Bluish-white	1.5	Bright	10	59
	"	I. 26. 27	S.	2	Bluish-white	1.0	Slight	10	60
	"	I. 29. 24	S.	> 1	Bluish-white	2.0	Brilliant	20	61
	"	I. 35. 49	S.	1	Bluish-white	1.5	Bright	25	62

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

No. for Reference.	Path of Meteor through the Stars.
1	From β Persei towards ϵ Arietis.
2	From β Andromedæ towards β Pegasi.
3	From γ Persei towards ω Cassiopeiae.
4	From α Pegasi towards α Aquarii.
5	From ν Piscium towards δ Piscium.
6	From α Aquarii to a point beyond ι Capricorni.
7	From κ Persei towards η Arietis.
8	From α Camelopardali towards α Ursæ Majoris.
9	From β Andromedæ towards α Arietis.
10	From γ Cassiopeiae towards α Cassiopeiae.
11	From α Persei towards α Ursæ Majoris.
12	From η Cygni towards η Aquilæ.
13	From β Andromedæ towards ν Piscium.
14	From ψ Pegasi towards ϵ Pegasi.
15	From α Pegasi towards α Aquilæ.
16	From β Trianguli towards η Piscium.
17	From γ Trianguli towards ϕ Piscium.
18	From β Camelopardali towards τ Lynæ.
19	From α Pegasi towards ζ Aquarii.
20	From β Persei towards α Arietis.
21	From γ Andromedæ towards β Andromedæ.
22	From α Persei towards β Aurigæ.
23	From α Persei to a point a little beyond β Camelopardali.
24	From α Persei towards Polaris.
25	From α Lyrae towards α Ophiuchi.
26	From α Andromedæ towards μ Pegasi.
27	From β Trianguli towards ζ Piscium.
28	From γ Cygni to a point a little beyond β Cygni.
29	From λ Ursæ Majoris towards β Ursæ Majoris.
30	From δ Persei towards κ Arietis.
31	From γ Cephei towards γ Draconis.
32	From γ Andromedæ towards α Pegasi.
33	From β Persei towards τ Persei.
34	From α Persei towards δ Trianguli.
35	From ϵ Andromedæ towards τ Pegasi.
36	From β Persei towards α Arietis.
37	From α Pegasi towards α Aquilæ.
38	From τ Pegasi towards δ Aquarii.
39	From α Pegasi towards δ Capricorni.
40	From α Aquarii towards θ Capricorni.
41	From α Pegasi towards ζ Arietis.
42	From α Persei towards β Aurigæ.
43	From γ Andromedæ towards β Andromedæ.
44	From β Andromedæ towards ω Cassiopeiae.
45	From β Trianguli towards α Arietis.
46	From β Persei towards Aldebaran.
47	From α Persei towards ϵ Cassiopeiae.
48	From β Persei towards Aldebaran.
49	From α Persei towards β Trianguli.
50	From α Andromedæ towards δ Pegasi.
51	From α Pegasi towards α Aquarii.
52	From α Pegasi towards γ Piscium.
53	From β Persei towards ϵ Arietis.
54	From Capella towards τ Lynæ.
55	From τ Hev. Camelopardali towards α Ursæ Majoris.
56	From α Camelopardali towards α Ursæ Majoris.
57	From α Persei towards β Trianguli.
58	From α Vulpeculæ towards β Serpentis.
59	From α Pegasi towards α Aquarii.
60	From β Lyrae towards τ Serpentis.
61	From β Pegasi towards β Aquarii.
62	From ζ Persei towards β Aurigæ.

OBSERVATIONS OF LUMINOUS METEORS.

Month and Day, 1901.		Greenwich Civil Time.	Observer.	Apparent Size 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.	No. for Reference.
August	13	h m s							
		1. 36. 19	S.	I	Bluish-white	8	Bright	0	1
		1. 36. 42	B.	I	Bluish-white	1.5	Bright	15	2
		1. 36. 46	S.&W.P.	> I	Bluish-white	2.0	Brilliant	20	3
		1. 39. 51	S.	I	Bluish-white	1.5	Bright	15	4
		1. 40. 31	W.P.	> I	Bluish-white	1.5	Slight	15	5
		1. 41. 34	S.	I	Bluish-white	1.0	None	15	6
		1. 42. 42	S.	2	Bluish-white	1.5	None	10	7
		1. 44. 9	S.	I	Bluish-white	1.0	None	10	8
		1. 44. 14	S.&W.P.	I	White	1.0	Slight	15	9
		1. 46. 58	S.	Jupiter.	Green	1.5	None	...	10
		1. 48. 25	S.	I	Bluish-white	1.0	Brilliant, 3 ^a	10	11
		1. 49. 54	S.	I	Bluish-white	1.5	Very bright	10	12
		1. 51. 15	W.P.	I	White	1.0	Brilliant	15	13
		1. 53. 31	W.P.	2	White	1.5	None	10	14
		1. 57. 58	S.&W.P.	I	White	2.0	Brilliant: long	15	15
		1. 59. 11	S.&W.P.	I	Bluish-white	2.5	Brilliant	20	16
		2. 1. 16	S.&W.P.	> I	White	2.0	Bright	20	17
		2. 4. 47	S.&W.P.	> I	White	2.0	Brilliant	10	18
		2. 5. 12	S.&W.P.	I	Bluish-white	1.0	Bright	10	19
		2. 5. 17	S.&B.	> I	Bluish-white	2.0	Brilliant	15	20
		2. 5. 17	S.	I	Bluish-white	1.0	Bright	10	21
		2. 6. 15	S.	I	Bluish-white	1.5	Bright	15	22
		2. 9. 9	S.&W.P.	> I	Bluish-white	3.0	Very bright	20	23
		2. 10. 48	S.&W.P.	> I	White	2.0	Bright	10	24
		2. 14. 35	W.P.	2	White	3.0	Very bright	15	25
		2. 15. 51	S.&W.P.	> I	Bluish-white	2.0	Bright	10	26
		2. 16. 41	S.&B.	> I	White	2.0	Slight	10	27
		2. 17. 55	W.P.&B.	2	Bluish-white	1.5	None	10	28
		2. 18. 1	S.	2	Bluish-white	4.0	None	10	29
		2. 21. 43	S.&W.P.	I	White	2.0	Bright	10	30
		2. 22. 48	W.P.	> I	White	2.0	Brilliant	20	31
		2. 23. 38	S.&W.P.	I	White	2.0	Brilliant	15	32
		2. 23. 40	S.&W.P.	2	Bluish-white	1.0	None	10	33
		2. 25. 25	S.&B.	I	Red	2.0	Brilliant	20	34
		2. 27. 28	W.P.	I	White	1.0	None	5	35
		2. 29. 46	W.P.	I	White	1.5	None	10	36
		2. 30. 3	S.	> I	White	2.5	Brilliant	10	37
		2. 33. 54	W.P.	I	White	1.5	None	10	38
		2. 36. 28	S.	I	White	1.5	Bright	10	39
		2. 38. 58	B.	2	White	1.0	None	10	40
		2. 40. 56	S.	> I	White	1.5	Bright	25	41
		2. 43. 1	S.	> I	White	2.0	Bright	30	42
		2. 46. 32	W.P.	I	Bluish-white	2.0	None	15	43
		2. 55. 38	S.	> I	Bluish-white	1.5	Bright	15	44
		3. 3. 58	S.&W.P.	I	White	1.5	None	15	45
		3. 7. 18	S. W.P.&B.	Jupiter.	White	2.5	Brilliant	30	46
		3. 9. 47	S.&W.P.	I	White	1.5	Slight	15	47
		3. 16. 33	S.	I	White	1.0	Bright	10	48
		21. 16. 56	S.	> I	Bluish-white	0.5	Bright	15	49
		21. 29. 31	S.	> I	Bluish-white	1.5	Bright	20	50
		21. 35. 56	S.	I	Bluish-white	2.0	Bright	15	51
		21. 44. 41	S.	> I	Bluish-white	1.5	Bright	10	52
		21. 48. 41	S.	I	Bluish-white	1.0	Bright	10	53
		21. 51. 46	S.	I	Bluish-white	1.5	Bright: broken	15	54
		21. 56. 29	S.	> I	Bluish-white	1.5	Brilliant	15	55
		22. 0. 23	S.	> I	Bluish-white	1.0	Bright	25	56
		22. 16. 2	N.&S.	> I	Bluish-white	2.0	Bright	15	57
		22. 23. 48	S.	2	Bluish-white	0.5	Bright	5	58
		22. 24. 49	S.	> I	Bluish-white	1.0	Brilliant	15	59
		22. 25. ±	N.	> I	Bluish-white	1.0	Bright	20	60
		22. 25. 38	S.	> I	Bluish-white	1.0	Bright	10	61
		22. 26. 56	S.	I	Bluish-white	2.0	Bright: long	15	62
		22. 29. 27	S.	> I	Bluish-white	2.0	Bright: long	20	63
		22. 34. 43	S.	> I	Bluish-white	2.5	Bright: long	20	64
		22. 36. 56	S.	I	Bluish-white	1.5	Bright: long	15	65

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

No. for Reference.	Path of Meteor through the Stars.
1	From Piazzi III. 51 towards δ Ursæ Minoris.
2	From δ Trianguli towards δ Piscium.
3	From β Camelopardali towards α Ursæ Majoris.
4	From Piazzi X. 78 towards γ Ursæ Majoris.
5	From 43 Camelopardali towards α Ursæ Majoris.
6	From β Andromedæ towards α Pegasi.
7	From β Camelopardali moved to a point 5° above α Ursæ Majoris.
8	From β Persei towards γ Cassiopeiae.
9	From β Aurigæ towards Pollux.
10	From a point 5° north of β Persei gradually increased in brightness then burst and disappeared.
11	From τ Piscium towards χ Pegasi.
12	From 56 Andromedæ towards ψ Piscium.
13	From η Piscium towards i Piscium.
14	From β Persei towards Capella.
15	From α Persei towards β Trianguli.
16	From the Pleiades towards λ Tauri.
17	From β Persei towards β Aurigæ.
18	From ζ Persei towards μ Tauri.
19	From α Persei towards ε Cassiopeiae.
20	From ψ Piscium towards F Aquarii.
21	From β Aurigæ towards δ Aurigæ.
22	From β Trianguli towards η Piscium.
23	From the Pleiades towards μ Tauri.
24	From α Persei towards Aldebaran.
25	From α Pegasi towards β Aquarii.
26	From ν Arietis towards α Piscium.
27	From γ Pegasi towards τ₂ Aquarii.
28	From 97 Tauri towards γ Orionis.
29	From θ Aurigæ towards ε Geminorum.
30	From β Camelopardali towards 27 Camelopardali.
31	From ζ Draconis towards θ Boötis.
32	From α Camelopardali towards α Ursæ Majoris.
33	From α Persei towards Pollux.
34	From α Persei towards Pollux.
35	From A Tauri towards λ Tauri.
36	From 7 Camelopardali towards 55 Aurigæ.
37	From the Pleiades towards ν Tauri.
38	From 42 Camelopardali towards 27 Lyncis.
39	From Polaris towards β Ursæ Minoris.
40	From the Pleiades towards Aldebaran.
41	From α Piscium towards α Andromedæ.
42	From Capella towards Castor.
43	From γ Ursæ Minoris towards θ Draconis.
44	From α Pegasi towards β Aquarii.
45	From β Persei towards α Arietis.
46	From β Persei towards μ Piscium.
47	From a point midway between Capella and β Aurigæ towards 43 Camelopardali.
48	From α Persei towards θ Aurigæ.
49	From β Andromedæ to a point a little beyond γ Pegasi.
50	From β Pegasi towards θ Pegasi.
51	From ζ Cygni towards η Aquilæ.
52	From π Persei towards ε Cassiopeiae.
53	From θ Persei towards ε Persei.
54	From 31 Vulpeculae towards α Aquilæ.
55	From β Andromedæ towards χ Pegasi.
56	From i Cephei towards α Lyrae.
57	From α Andromedæ to a point a little beyond α Pegasi.
58	From β Persei towards 27 Persei.
59	From β Andromedæ towards δ Andromedæ.
60	From β Piscium moved across φ Aquarii.
61	From β Persei towards β Aurigæ.
62	From α Persei towards α Aquarii.
63	From α Camelopardali towards β Ursæ Majoris.
64	From α Lyrae to a point about 3° beyond α Ophiuchi.
65	From α Lyrae towards α Ophiuchi.

OBSERVATIONS OF LUMINOUS METEORS,

Month and Day, 1901.	Greenwich Civil Time.	Observer.	Apparent Size 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.	No. for Reference.
August	h m s				s		°	
	22. 38. 41	S.	> I	Bluish-white	2·5	Bright : long	25	1
	22. 42. 52	S.	I	Bluish-white	1·0	Bright : broken	15	2
	22. 43. 17	S.	I	Bluish-white	1·5	Bright : broken	15	3
	22. 44. 38	S.	I	Bluish-white	2·0	Bright	15	4
	23. 7. 31	S.	> I	Bluish-white	2·0	Bright : broken	25	5
	23. 14. 55	S.	> I	Bluish-white	3·0	Bright : broken	25	6
	23. 36. 14	S.	> I	Bluish-white	2·0	Bright : long : broken	15	7
	23. 50. 56	S.	> I	Bluish-white	2·5	Bright : long	20	8
	23. 56. 27	S.	> I	Bluish-white	2·0	Bright : long	20	9
August	o. 3. 34	S.	> I	Bluish-white	3·0	Bright : long	25	10
	o. 18. 38	S.	> I	Bluish-white	1·5	Bright : broken	15	11
November	13	N.	I	White	0·8	Bright	12	12
November	22. 53. 57	S., P. & B.	I	Bluish-white	2·0	Slight	5	13
	22. 55. 36	W.P.	I	Bluish-white	1·0	Slight	5	14
	23. 20. 19	W.P. & B.	I	Bluish-white	1·5	Slight	5	15
	23. 49. 15	B.	I	Bluish	1·0	Brilliant : short	3	16
November	o. 1. 12	S. & W.P.	> I	White	2·0	Brilliant	25	17
	o. 3. 51	S. & W.P.	I	White	2·0	None	10	18
	o. 17. 3	W.P.	I	White	1·0	None	15	19
	o. 34. 0	S. & B.	I	Bluish-white	1·0	Slight : bright	5	20
	o. 35. 36	P.	> I	Blue	2·0	Long	25	21
	o. 35. 45	S.	> I	White	1·0	Bright	25	22
	o. 36. 22	P. & B.	> I	White	2·0	Brilliant	20	23
	o. 57. 25	P. & W.P.	> I	Bluish-white	2·0	Brilliant	25	24
	1. 13. 36	B.	I	Bluish-white	1·5	Bright	20	25
	1. 16. 59	S. & B.	> I	Bluish-white	3·0	Very bright : long	45	26
	1. 25. 50	W.P.	> I	White	1·5	Bright	15	27
	1. 29. 52	S., P. & B.	> I	White	2·0	Bright	20	28
	1. 30. 5	S., P., W.P. & B.	> I	White	2·5	Brilliant	20	29
	1. 32. 15	B.	> I	Bluish-white	3·0	Brilliant : long	20	30
	1. 35. 13	S. & B.	> I	Bluish-white	1·0	Brilliant	20	31
	1. 41. 54	S.	I	Bluish-white	1·5	Bright	10	32
	1. 46. 48	S. & P.	> I	Bluish-white	2·0	Bright : long	25	33
	2. 3. 19	S., W.P. & B.	> I	Bluish-white	1·5	Brilliant	25	34
	2. 21. 27	B.	I	White	1·5	Faint	10	35
	2. 24. 35	P.	I	White	1·0	Bright	25	36
	2. 28. 32	S. & B.	I	White	1·0	Slight	15	37
	2. 37. 58	W.P.	2	Bluish-white	1·0	None	15	38
	2. 50. 14	S.	I	White	2·0	Bright : long	35	39
	2. 51. 14	S.	I	Bluish-white	1·0	Slight	10	40
	3. 2. 45	S. & B.	> I	Bluish-white	1·0	Brilliant	15	41
	3. 7. 33	S. & B.	I	Blue changing to light green	0·5	None	...	42
	3. 7. 42	B.	I	Bluish-white	1·0	Bright	10	43
	3. 16. 35	W.P. & B.	> I	White	1·0	Bright	5	44
	3. 17. 22	S.	I	Blue changing to bright green	0·5	None	5	45
	3. 19. 17	P.	I	Bluish-white	1·0	Slight	10	46
	3. 22. 51	P.	I	Bluish-white	1·5	Bright	15	47
	3. 23. 7	S., P. & B.	> I	White	2·5	Brilliant	30	48
	3. 23. 25	S. & B.	2	Bluish-white	1·0	None	5	49
	3. 26. 13	S. & B.	I	Bluish-white	1·0	Bright	15	50
	3. 26. 34	W.P.	> I	Bluish-white	1·0	Bright	10	51
	3. 30. 57	B.	I	Bluish-white	1·0	Slight	10	52
	3. 35. 39	S., W.P. & B.	> I	Bluish-white	1·5	Slight	10	53
	3. 40. 39	W.P. & B.	> I	Bluish-white	1·0	Bright	15	54
	3. 42. 37	P.	2	Bluish-white	0·5	None	5	55

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

No. for Reference.	Path o' Meteor through the Stars.
1	From γ Cassiopeiae towards α Lyræ.
2	From α Cygni towards ϕ Cygni.
3	From γ Andromedæ towards τ Piscium.
4	From β Andromedæ towards α Andromedæ.
5	From α Andromedæ to a point midway between α and γ Aquarii.
6	From β Pegasi towards β Aquarii.
7	From α Cygni towards β Cygni.
8	From α Pegasi towards δ Capricorni.
9	From α Trianguli towards ι Ceti.
10	From a point midway between α and β Cassiopeiae towards γ Cygni.
11	From Polaris to a point a little beyond β Ursæ Minoris.
12	From γ Orionis towards Aldebaran.
13	From κ Leonis towards ι Cancri.
14	From ζ Tauri towards Aldebaran.
15	From a point midway between α and β Ursæ Majoris towards β Cancer.
16	From γ Leonis towards η Leonis.
17	From β Canis Minoris towards β Orionis.
18	From Aldebaran towards β Orionis.
19	From λ Tauri towards γ Ceti.
20	From ϵ Leonis towards κ Leonis.
21	From Castor towards β Ursæ Majoris.
22	From ϵ Leonis to a point midway between Castor and Pollux.
23	From α Ursæ Majoris towards Polaris.
24	From Procyon towards β Orionis.
25	From θ Ursæ Majoris towards Polaris.
26	From β Tauri towards Polaris.
27	From β Tauri towards λ Geminorum.
28	From Pollux towards ζ Tauri.
29	From γ Leonis towards Pollux.
30	From α Ursæ Majoris towards Polaris.
31	From γ Leonis to a point a little beyond β Leonis.
32	From γ Leonis towards θ Hydræ.
33	From a point between η and ϵ Leonis towards θ Geminorum.
34	From γ Leonis towards θ Geminorum.
35	From γ Leonis to a point beyond Regulus.
36	From α Ursæ Majoris towards Aldebaran.
37	From ζ Leonis towards λ Ursæ Majoris.
38	From ζ Persei towards η Arietis.
39	From α Lynæis towards γ Persei.
40	From Sirius moved in a southerly direction.
41	From γ Leonis to a point a little beyond β Leonis.
42	From γ Leonis moved 3° towards ϵ Leonis and burst into fragments.
43	From γ Leonis towards Regulus.
44	From δ Leonis towards ι Leonis.
45	From γ Leonis moved 5° towards α Lynæis and burst into fragments.
46	From τ Leonis towards δ Crateris.
47	From γ Leonis towards Castor.
48	From Pollux towards Capella.
49	From ι Leonis towards θ Crateris.
50	From ϵ Geminorum towards ζ Tauri.
51	From Castor towards θ Aurigæ.
52	From η Ursæ Majoris towards ι Draconis.
53	From γ Ursæ Majoris towards β Draconis.
54	From β Leonis towards γ Virginis.
55	From α Ursæ Majoris towards λ Draconis.

Month and Day, 1901.	Greenwich Civil Time.	Observer.	Apparent Size 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.	No. for Reference.
November 15	h m s				s		°	
	3. 47. 8	W.P.&B.	> I	Bluish-white	1.5	Slight	15	1
	3. 59. 53	B.	I	Bluish-white	2.0	Bright : long	25	2
	4. 1. 39	W.P.	I	White	1.0	Bright	10	3
	4. 3. 30	P.	I	Bluish-white	1.0	Slight	5	4
	4. 3. 53	S.	I	White	1.5	None	10	5
	4. 4. 27	S.&B.	2	White	1.0	None	15	6
	4. 9. 57	S.	I	White	2.0	Bright	15	7
	4. 10. 0	S.,P.&B.	I	White	1.0	Bright	25	8
	4. 10. 2	P.&B.	I	White	1.5	Bright	10	9
	4. 22. 9	S.&W.P.	> I	White	2.5	Brilliant	30	10
	4. 22. 33	P.&W.P.	I	Bluish-white	1.0	Bright	15	11
	4. 23. 25	P.&W.P.	I	Bluish-white	1.5	Bright	15	12
	4. 24. 30	W.P.&B.	2	Bluish-white	1.0	Bright	10	13
	4. 25. 21	S.	I	Bluish-white	1.0	Slight	10	14
	4. 26. 34	P.	I	Bluish-white	1.5	Bright	10	15
	4. 27. 35	W.P.	I	Bluish-white	3.0	Bright	15	16
	4. 39. 3	W.P.	I	Bluish-white	1.0	Slight	10	17
	4. 40. 41	S.&P.	2	Bluish-white	0.5	None	5	18
	4. 50. 6	S.	I	Bluish-white	0.5	Bright	15	19
	4. 52. 34	S.&B.	I	Bluish-white	1.0	Bright	10	20
	4. 53. 53	S.&B.		Bluish-white	0.5	Bright	15	21
	4. 55. 35	S.&W.P.	> V	White	0.5	Bright	15	22
	4. 56. 46	S.,W.P.&B.	> I	White	0.5	Bright	15	23
November 16	0. 3. 9	S.&W.P.	I	White	0.8	None	10	24
	0. 8. 6	S.	I	Bluish-white	1.0	Broken	15	25
	0. 13. 23	P.&W.P.	I	Bluish-white	1.2	Broken	15	26
	0. 17. 15	S.	I	Yellow	1.0	None	15	27
	0. 19. 59	W.P.	I	Bluish-white	0.6	None	7	28
	0. 23. 53	S.&P.	I	Bluish-white	1.0	Slight : broken	18	29
	0. 28. 37	W.P.&B.	I	Bluish-white	1.0	Slight	10	30
	0. 30. 6	S.&P.	> I	White	1.5	Slight	15	31
	1. 7. 23	S.	I	Bluish-white	1.0	Bright : broken	20	32
	1. 8. 9	S.&B.	> I	White	1.5	Bright : broken	15	33
	1. 11. 46	W.P.	I	Bluish-white	0.9	Bright : broken	10	34
	1. 14. 56	S.	> I	Bluish-white	1.0	Brilliant	20	35
	1. 15. 54	W.P.	> V	Bluish-white	0.8	Slight	17	36
	1. 56. 46	S.	> I	White	1.5	Brilliant	20	37
	1. 59. 6	S.&B.	> I	White	1.0	Bright	15	38
	1. 59. 24	S.&P.	I	Bluish-white	1.0	Slight	15	39
	2. 7. 54	S.	> I	Bluish-white	0.4	Bright	10	40
	2. 34. 38	S.&W.P.	I	White	1.0	Bright	20	41
	2. 38. 21	W.P.&B.	> I	Bluish-white	1.5	Brilliant	15	42
	2. 38. 25	S.	> I	White	0.9	Bright	45	43
	2. 43. 25	S.	I	White	0.5	Bright	15	44
	2. 43. 40	S.&B.	> I	Bluish-white	1.0	Brilliant	15	45
	2. 47. 24	S.	I	Bluish-white	1.5	Slight	25	46
	2. 48. 6	S.&P.	2	Bluish-white	1.0	None	10	47
	2. 48. 14	S.&W.P.	> I	Bluish-white	0.5	Bright	15	48
	2. 53. 2	S.	I	White	1.0	Slight	20	49
	2. 54. 23	S.&B.	I	Bluish-white	1.0	None	10	50
	3. 0. 16	S.	> I	Greenish-white	1.5	Very bright	15	51
	3. 4. 6	S.&P.	> I	White	3.0	Bright	20	52
	3. 4. 55	P.&B.	I	Bluish-white	1.0	Very bright	15	53
	3. 10. 20	S.&P.	> I	White	1.0	Brilliant	25	54
	3. 13. 52	P.&W.P.	I	Bluish-white	1.5	Bright	20	55
	3. 16. 37	S.&P.	> I	Bluish-white	1.0	Bright	30	56
	3. 20. 38	P.&W.P.	> I	White	1.0	Brilliant	10	57
	3. 20. 55	S.&P.	I	White	1.5	Bright	15	58
	3. 22. 29	S.,P.&W.P.	> I	Bluish-white	1.0	Slight	10	59
	3. 49. 35	P.&B.	I	Bluish-white	1.0	Bright : broken	20	60
	3. 51. 43	S.&P.	> I	Bluish-white	1.0	Bright : broken	15	61
	3. 52. 36	S.	> I	Bluish-white	0.5	None	8	62
	4. 10. 56	P.&W.P.	> I	White	1.5	Very bright : long	20	63

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

No. for Reference.	Path of Meteor through the Stars.
1	From β Comæ towards γ Boötis.
2	From α Ursæ Majoris towards Polaris.
3	From α Draconis towards η Draconis.
4	From β Cancri towards Procyon.
5	From ζ Ursæ Majoris towards ι Draconis.
6	From α Orionis towards Aldebaran
7	From a point midway between Castor and Pollux towards β Tauri.
8	From β Leonis Minoris towards α Ursæ Majoris.
9	From β Leonis towards ϵ Boötis.
10	From α Ursæ Majoris to a point midway between Polaris and β Ursæ Minoris.
11	From κ Draconis to a point a little beyond ι Draconis.
12	From λ Draconis towards γ Cephei.
13	From α Boötis towards δ Serpentis.
14	Moved from a point a little to the east of Polaris towards α Cephei.
15	From β Ursæ Minoris towards Polaris.
16	From α Canum Venaticum towards ϵ Boötis.
17	From β Cassiopeiae towards χ Andromedæ.
18	From α Leonis towards 15 Sextantis.
19	From ϵ Hydræ towards 27 Monocerotis.
20	From β Ursæ Majoris towards λ Draconis.
21	From α Canum Venaticum towards γ Boötis.
22	From γ Leonis towards χ Leonis.
23	From θ Leonis towards θ Crateris.
24	From β Orionis to a point midway between 53 and 54 Eridani.
25	From ϵ Leonis towards ι Cancri.
26	From Procyon towards θ Canis Majoris.
27	From ν Cancri towards κ Geminorum.
28	From α Lyngis towards 31 Lyngis.
29	From 71 Geminorum to a point a little south of θ Aurigæ.
30	From π_4 Orionis towards ζ Eridani.
31	From 23 Ursæ Majoris towards Polaris.
32	From κ Ursæ Majoris towards 43 Camelopardali.
33	From ψ Ursæ Majoris to a point midway between χ and γ Ursæ Majoris.
34	From γ Orionis towards ν Eridani.
35	From Castor towards β Tauri.
36	From Procyon towards θ Canis Majoris.
37	From β Geminorum to a point midway between β and ζ Tauri.
38	From θ Ursæ Majoris towards B ₁ Camelopardali.
39	From ϕ Geminorum towards ϵ Geminorum.
40	From δ Cancri towards 6 Canis Minoris.
41	From ϵ Geminorum towards ζ Tauri.
42	From ξ Leonis towards λ Ursæ Majoris.
43	From γ Leonis towards Capella.
44	From α Leonis towards 8 Sextantis.
45	From κ Cancri towards 27 Monocerotis.
46	From α Cancri towards Sirius.
47	From γ Leonis towards β Leonis Minoris.
48	From α Lyngis towards 21 Lyngis.
49	From 15 Monocerotis towards δ Orionis.
50	From θ Leonis towards σ Virginis.
51	From α Camelopardali towards θ Cassiopeiae.
52	From θ Geminorum towards θ Orionis.
53	From κ Draconis towards β Ursæ Minoris.
54	From ι Ursæ Majoris towards ϵ Cassiopeiae.
55	From σ Leonis towards δ Crateris.
56	From ι Aurigæ towards ξ Arietis.
57	From ϵ Leonis towards ι Cancri.
58	From Castor towards β Tauri.
59	From ψ Ursæ Majoris towards γ Ursæ Majoris.
60	From ζ Leonis towards ϕ Ursæ Majoris.
61	From 92 Leonis towards α Comæ.
62	From γ Comæ towards β Comæ.
63	From γ Leonis towards α Canum Venaticum.

Month and Day, 1901.	Greenwich Civil Time.	Observer.	Apparent Size 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.	No. for Reference.
November 16	h m s 4. 16. 17	S.&B.	I	Bluish-white	8 1.5	Slight	0 15	1
	4. 29. 38	W.P.&B.	I	Bluish-white	1.5	None	15	2
	4. 31. 42	S.&P.	> I	Orange	0.4	None	5	3
November 23	18. 39. 55	P.&B.	I	Bluish-white	2.0	Brilliant	15	4
	20. 25. 0	S.	> I	Bluish	1.0	Very bright : long	15	5
December 8	19. 54. 31	S.&B.	> I	White	3.5	Brilliant	20	6
December 11	21. 23. 27	S.	I	Bluish-white	1.0	Bright : broken	15	7
	21. 35. 26	S.	> I	Bluish-white	1.0	Bright : broken	20	8
	21. 36. 45	S.	> I	Bluish-white changing to white	4.0	Brilliant	15	9
	21. 43. 23	S.	> I	Bluish-white	2.0	Brilliant	10	10
	21. 58. 52	S.	> I	White	4.0	Brilliant	20	11
	22. 5. 19	S.	> I	Bluish-white	3.0	Brilliant	15	12
	22. 9. 48	S.	> I	White	2.0	Bright	15	13
	22. 12. 45	S.	> I	White	1.0	Brilliant	35	14
	22. 14. 54	S.	> I	White	1.0	Bright	15	15
	22. 20. 41	S.	> I	Bluish-white	1.0	Slight	10	16
	22. 24. 21	S.	> I	White	0.5	None	5	17
	22. 26. 29	S.	> I	Bluish-white	3.0	Brilliant	20	18
	22. 32. 19	S.	I	White	0.5	Slight	10	19
	22. 37. 48	S.	I	White	1.5	Bright	15	20
	22. 45. 52	S.	> I	Bluish-white	3.0	Brilliant	30	21
	22. 50. 15	S.	> I	Reddish	2.0	Brilliant	15	22
	22. 54. 56	S.	> I	White	1.5	Brilliant	20	23
	22. 57. 1	S.	> I	Bluish-white	1.0	Brilliant	15	24
	22. 58. 45	S.	I	Bluish-white	0.5	Slight	7	25
	23. 0. 8	S.	> I	White	3.0	Brilliant	15	26
	23. 1. 27	S.	> I	White	2.0	Brilliant	15	27

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

DARLINGTON
PUBLIC LIBRARY

No. for Reference.	Path of Meteor through the Stars.
1	From 21 Leonis Minoris towards 23 Ursæ Majoris.
2	From Capella towards β Persei.
3	From 31 Camelopardali towards β Camelopardali.
4	From γ Andromedæ towards θ Cassiopeiae.
5	From α Andromedæ towards ζ Pegasi.
6	From the Pleiades moved towards α Orionis bursting into three portions.
7	From ϵ Geminorum to a point midway between α and λ Orionis.
8	From Castor towards β Camelopardali.
9	From Castor towards α Cancri.
10	From Castor towards ϵ Geminorum.
11	From 1 Ursæ Majoris to a point a little to the east of β Ursæ Majoris.
12	From Castor towards 1 Cancri then curved in direction of α Lyncis.
13	From Capella towards δ Persei.
14	From Castor towards γ Orionis.
15	From 15 Ursæ Majoris towards β Ursæ Majoris.
16	From α Lyncis to a point a little beyond 20 Leonis Minoris.
17	Moved from Castor to a point a little beyond Pollux then burst and disappeared.
18	From 55 Camelopardali towards β Ursæ Minoris.
19	From μ Geminorum towards α Orionis.
20	From β Aurigæ towards γ Persei.
21	From 19 Lyncis towards Polaris.
22	From a point midway between Castor and Pollux towards β Canis Minoris.
23	From Castor towards δ Aurigæ.
24	From μ Geminorum towards γ Orionis.
25	From Pollux towards ζ Cancri.
26	From 27 Lyncis towards 27 Ursæ Majoris.
27	From Capella towards γ Andromedæ.

CARLINCTON
PUBLIC LIBRARY

