RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1909

UNDER THE DIRECTION OF

SIR W. H. M. CHRISTIE, K.C.B., M.A., D.Sc., F.R.S.,

AND EDITED BY

F. W. DYSON, 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.

1911.

ERRATA.

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS.

1908 INTRODUCTION.

Page xlii, lines 21 and 22. The wet-bulb thermometer Negretti and Zambra No. 94714 required a correction of $+0^{\circ}\cdot1$.

INDEX.

INTRODUCTION—*continued.*

INTRODUCTION—*concluded.*

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS IN TABULAR ARRANGEMENT:—

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS—*continued.* PAGE

INDEX.

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS—*continued.* PAGE

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS—*concluded.* PAGE

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS.

1909.

GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1909.

Introduction

§ 1. *Personal Establishment and Arrangements.*

During the year 1909 the personal establishment in the Magnetical and Meteorological Department of the Royal Observatory consisted of Walter William Bryant, Superintendent, aided by one Established Computer, David J. R. Edney, and four Computers. The Computers employed during the year were :—Edward Kirby, William H. Timbury, Arthur E. Loomes, and Ernest L. Richardson.

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

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

The 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 circumpolar 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, no longer in use since the removal of the upper declination magnet and its theodolite, is fixed at the junction of the eastern and southern arms, and there is in addition a mean solar chronometer, M^{c}Cabe 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 $5\frac{1}{3}$ 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.

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. A wooden stand on which the nephoscope can be mounted for occasional observations was placed there in May 1904.

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 were fixed an ozone box and a rain gauge, of which the former was removed on 1906 October 22, and mounted on the Stevenson screen in the Magnetic Pavilion enclosure. 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 were two rain gauges, both of which were removed at the end of 1906 February, being replaced by a single new one.

The Magnet Ground is bounded on its western side by a range of seven rooms formerly 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, a Stevenson screen was added on 1900 March 31, and an additional rain-gauge on 1908 January 1.

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* 1909.

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, special cloud observations in connection with the International Balloon ascents, 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 during 1899 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 to be $-10'\cdot8$. 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 $1''\cdot15$. By opening the North door of the Magnetic Pavilion observations of circumpolar stars can be made for determination of the reading of the horizontal circle of the theodolite corresponding to the astronomical meridian. For these observations a Sidereal Chronometer, Parkinson and Frodsham No. 3719, is kept in the Pavilion.

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 $-6^{\text{div}}\cdot0$, which is equivalent to $-6''\cdot9$.

The value in arc of one revolution of the telescope-micrometer is $1'.34''\cdot2$.

The adopted reading for the line of collimation of the theodolite telescope throughout the year was $100^{\text{r}}\cdot280$.

The effect of the plane glass in front of the box of the declination magnet was found to be insensible.

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 twenty-six determinations during the first six months of the year to be $+0'.40''\cdot0$, and from twenty-six determinations during the remainder of the year to be $+0'.30''\cdot3$.

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 for the first three months was found from the mean of thirteen determinations to be $\frac{1}{970}$. After April 1 the ratio was found from the mean of seventeen determinations to be $\frac{1}{637}$, and after September 1 from the mean of sixteen determinations to be $\frac{1}{907}$.

The reading of the azimuthal circle of the theodolite corresponding to the astronomical meridian was determined by observations of Polaris taken once every week when practicable.

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 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 11 a.m. 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 until June 1904, when amidol development was substituted. 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. 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 134·4 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 11 a.m., but on Sundays, and occasionally on other days, this rule was not strictly followed until the beginning of May, after which date the modifications of routine on special days were almost entirely discontinued. 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 $7^{ft.}\ 6^{in.}$. The distance between the branches of the skein, where they pass over the upper pulleys, is $1^{in.}\cdot14$; at the lower pulleys

the distance between the branches is $0^{in}\cdot80$. The vernier of the torsion-circle is set so that the magnet hangs approximately transverse to the magnetic meridian, the north magnetic pole being west. An increase of horizontal force then deflects the west end of the magnet to the north, while a diminution in the force has an opposite effect. An oval copper bar, exactly similar to that used with the lower declination magnet, encircles the horizontal force magnet, for the purpose of diminishing the small accidental vibrations.

The suspension skein in use during 1909 was mounted on 1900 July 9. It gave way during December and was broken at the end of the year.

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, 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 in its original position, the inclination having now diminished owing to the progressive change of magnetic declination.

The method described in previous volumes was employed in the determination of the angle of torsion. From experiments on 1908 December 31 it appeared that the angle of torsion was 42°.23′ and the reading of the torsion-circle when the magnet was transverse to the magnetic meridian was 148°.10′, and from similar experiments on 1909 December 31 the corresponding values were 42°.28′ and 148°.14′ respectively.

The value adopted for the angle of torsion in the reduction of the observations throughout the year was 42°.25′ as derived from these torsion experiments.

The adopted reading of the torsion-circle, for transverse position of the magnet, the marked end being west, was 146° throughout the year. The following table gives the adopted readings of the torsion-circle for each year since 1883, with the values calculated by a new method, and the percentage error of the scales used, the error

being considered positive when the scale used for measuring the photographs was too open.

Year.	T. C. Reading.		Percentage Scale Error.	Year.	T. C. Reading.		Percentage Scale Error.
	Calculated.	Adopted.			Calculated.	Adopted.	
	°	°			°	°	
1883	146·4	146·0	+0·5	1898	147·0	147·0	0·0
1884	146·5	146·0	+1·0	1899	147·1	147·0	−0·2
1885	146·5	146·0	+0·7	1900 to July 11	147·2	147·0	+0·8
1886	146·6	146·0	+0·7				
1887	146·9	146·0	+1·5	1900 from July 11	147·4	146·0	+2·2
1888	147·1	146·0	+1·9				
1889	147·2	146·0	+1·8	1901	147·7	146·5	+1·5
1890	147·3	147·0	+0·5	1902	147·7	146·0	+2·7
1891	147·1	147·0	+0·1	1903	147·5	146·0	+2·3
1892	146·9	147·0	−0·1	1904	147·6	146·0	+2·7
1893	146·9	147·0	−0·1	1905	147·9	146·0	+3·3
1894	147·0	147·0	+0·1	1906	148·1	146·0	+3·3
1895	147·1	147·0	+0·1	1907	148·2	146·0	+3·5
1896	147·0	147·0	0·0	1908	148·3	146·0	+3·8
1897	147·0	147·0	+0·2	1909	148·4	146·0	+4·3

In regard to the effect of the error of scale in the years when it became appreciable, it is to be noted that the range of horizontal force and the scale value of the waves described or reproduced in the volumes are affected, and also daily values which show a considerable departure from the mean.

The method employed in the construction of the above table, was not brought into use before 1911, but the following particulars of it are inserted here.

The length of $30^{div}\cdot85$ of the fixed scale is exactly 12 inches, and, since the distance of the centre of the face of the plane mirror from the scale is 90·84 inches, the angle at the mirror subtended by one division of the scale is $14'.43''\cdot2$. Therefore for a change of one division of scale-reading the magnet is turned through an angle of $7'.21''\cdot6$. The circular measure, ·002141, of the latter angle will be denoted by k.

The magnet should be within two or three degrees of arc on either side of the ideal position (*i.e.*, magnetic east and west direction), if it is to indicate truly the changes in the magnitude of the horizontal magnetic force, without regard to small changes in its direction. Suppose ϕ is the angle of torsion, and θ the circular measure of the deviation of the magnetic axis from the ideal position, θ being reckoned positive when the north pole of the magnet is north of west; then the variation of the horizontal

force—in terms of the whole horizontal force as unit—which will produce angular motion of the magnet corresponding to change of one scale-division, is

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

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

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

The reduction of the observations is executed by means of the following formulæ:—

For the angle of torsion, we have—

$$2\phi = (V_2 - V_1) + k_1 (S_1 - S_2),$$
$$2\phi = (V_2 - V_3) + k_1 (S_3 - S_2),$$

where k_1 is the value of one scale division in minutes of arc. The mean of the two values for ϕ (they should be accurately the same) is adopted. Similarly for the scale zero S_0, the mean of the two following values is adopted:—

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

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 $-0°{\cdot}3$ 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 273·6 × tan angle of torsion × 0·01. Taking for angle of torsion 42°.25′, the movement of the spot of light on the cylinder for a change of 0·01 of horizontal force is found to be 2·500 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°·2 to 61°·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°·0 to 60°·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 $(t-32)\times\cdot0000936+(t-32)^2\times\cdot000002074$, 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 excentrically 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.

A copper "damper," to reduce vibratory disturbances from electric railways or other sources, was applied to the magnet. After some preliminary trials this was made in the form of a flattened ring of round bar copper, half an inch in diameter, closely encircling the magnet and carried over its axis of vibration, and it was mounted on 1902 April 16. It was found that its effect was to reduce the amplitude of oscillation after every complete or double vibration (taking 36 seconds) in the ratio of 10 to 4·3, which is nearly the same as that of the damper for the declination magnet. It was dismounted on 1902 August 13, and since then it has not been found to be required.

The time of vibration of the magnet in the vertical plane is observed usually about once in each week. From 51 observations made during the year this was found to be $17^{s}\cdot114$.

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 1908 December 31 gave for the time of vibration of the magnet in the horizontal plane $16^{s}\cdot891$. This value has been used throughout for the year 1909.

The length of the normal to the fixed vertical scale that meets the face of the plane mirror is 186·07 inches, and $30^{div}\cdot85$ of the scale correspond to 12 inches. Consequently the angle which one division of the scale subtends, as seen from the mirror, is $7'.11''\cdot2$, or the angular movement of the normal to the mirror, corresponding to a change of one division of scale-reading, is $3'.35''\cdot6$.

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 $52\frac{3}{4}°$. Therefore, dividing the result just obtained, $3'.35''\cdot6$, by sin $52\frac{3}{4}°$, the angular motion of the magnet corresponding to a change of one division of scale-reading is found to be $4'.30''\cdot9$.

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 $T' = 16^{s}\cdot891$, $T = 17^{s}\cdot114$, and dip = $66°.53'.57''$, the change of vertical force corresponding to change of one division of scale-reading was found to be 0·0005457, and this value has been used during the year 1909 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 $-0°{\cdot}3$ 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 $= 200{\cdot}4 \times \tan \text{dip} \times \left(\frac{T}{T'}\right)^2 \times 0{\cdot}01$. Using the values of T, T', and of dip before given (page *xx*), the movement of the spot of light on the cylinder for a change of 0·01 of vertical force is thus found to be 4·823 inches, and with this unit the scale for measure of the ordinates was constructed for use during 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°·3 to 64°·9, 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 a 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 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 1909 are of the ordinary construction; they are the 3-inch needles, D_1 and D_2. The pivot of D_2 was broken on 1907 February 19, a new spindle was fitted by Messrs. Simms, and the needle adjusted by Mr. Dover on 1907 March 18, but it appeared from the separate observations obtained during 1908 that a further adjustment was necessary, and this was made by Mr. Bryant on 1909 January 21.

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 the late Professor Balfour Stewart, and these have been since used in reduction of all observations made with the instrument at Greenwich.

The instrumental constants as thus furnished are as follows:—

The increase in the magnetic moment of the deflecting magnet produced by the inductive action of unit magnetic force in the English system of absolute measurement = μ = 0·00015587.

The correction for decrease of the magnetic moment of the deflecting magnet required in order to reduce to the temperature 35° Fahrenheit = $c = 0{\cdot}00013126\ (t-35) + 0{\cdot}000000259\ (t-35)^2$; 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 1ft·0 east to 1ft·0 west of the engraved scale, at temperature 62°, is too long by 0·0034 inch, and the distance from 1ft·3 east to 1ft·3 west is too long by 0·0053 inch. The coefficient of expansion of the scale for 1° is ·00001.

The adopted value of K was confirmed in the year 1878 by a new and entirely independent determination made at the Royal Observatory, giving log. K at temperature 30° = 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 1·0 and 1·3 foot),

u_1, u_2 the observed angles of deflexion,

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

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

$P = \dfrac{A_1 - A_2}{\dfrac{A_1}{r_1^2} - \dfrac{A_2}{r_2^2}}$ [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

$$\frac{\text{Log. } A_1 - \text{Log. } A_2}{\text{modulus}} \times \frac{r_1^2 \times r_2^2}{r_2^2 - r_1^2} = (\text{Log. } A_1 - \text{Log. } A_2) \times 5{\cdot}64.$$

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 $0{\cdot}46108 = \frac{1}{2{\cdot}1689}$. 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 was 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. Recently, however, the former circuit shows less disturbance, owing probably to alterations in the working of the Electric Railway. At night when the trains are not running, the interruptions entirely cease.

Observations of earth currents were discontinued at the end of 1909.

§ 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 two days, May 14 and September 25, in the year 1909 which are classed as days of great disturbance. Days of lesser disturbance are January 3–4, 29–30, 30–31; May 18–19; September 30–October 1; October 18–19. 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. May 14 and September 25 were omitted on account of great disturbance in the formation of these Tables, and from other causes there are omitted in Tables I. and II. for declination, December 20, 21, 22 and 31, in Tables III. to VI. for horizontal force, September 10 and 11 and December 20, 21, 22 and 31, and in Tables VII. to X. for vertical force, December 31.

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

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 $(t-32) \times \cdot0000936 + (t-32)^2 \times \cdot000002074$ (page *xviii*), where t is the temperature in degrees Fahrenheit; and to those of vertical force, Tables VII. and IX., the correction $-(t-32) \times \cdot000212$ (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, c in Table III. on August 21, which should be taken as 1003 for comparison with the adjacent values, and similarly in other cases. The excess of the value of c above that of u on any day (supposing c, when the smaller value, to be increased by 1000) shows the correction for temperature that has been actually applied. In Tables II., V., IX., and XII. the separate hourly values of the different elements have been simply diminished by the smallest hourly value.

The variations of declination are given in the sexagesimal division of the circle, and those of horizontal and vertical force in terms of ·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

$$\text{H.F. in metrical measure} \times \sin 1' = 1{\cdot}8526 \times \sin 1' = 0{\cdot}0005389.$$

For variation of horizontal force, the factor is

$$\text{H.F. in metrical measure} = 1{\cdot}8526,$$

and for variation of vertical force

$$\begin{aligned}\text{V.F. in metrical measure} &= \text{H.F. in metrical measure} \times \tan \text{dip},\\ &= 1{\cdot}8526 \times \tan 66^\circ.53'.57'' = 4{\cdot}3432.\end{aligned}$$

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 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:—

1909.	a_5.	b_5.
Declination	−0′·08	+0′·01
Horizontal Force	−0·5	−0·5
Vertical Force	−0·3	−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 1909.	Declination.	Horizontal Force.	Vertical Force.
Sums of Squares of Observed Values (Table XII.)	240·65	296443·2	23329·8
Sums of Squares of Residuals after the introduction of m	106·94	52890·1	4703·7
,, ,, a_1 and b_1	42·13	12652·8	2150·1
,, ,, a_2 and b_2	6·20	2274·6	375·5
,, ,, a_3 and b_3	0·66	458·0	42·8
,, ,, a_4 and b_4	0·10	17·9	11·6
,, ,, a_5 and b_5	0·03	11·9	7·7

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 disturbance mentioned on page *xxix*.

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

The plates are preceded by a brief description of *all* other significant magnetic motions (superposed on the ordinary diurnal movement) recorded throughout the year. These, in combination with the plates, give very complete information on magnetic disturbances during the year 1909, 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 (xxxiv).

An additional plate (V.) 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	2·500	63·49	4·823	122·50
On the Plates - -	2·580	65·53	1·375	34·92	2·653	67·38

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 *xxxv*.)

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
= ·0175 of Horizontal Force,
and Vertical Force = Horizontal Force × tan dip [adopted dip = 66°.53′.57″]
= Horizontal Force × 2·3444;

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	2·50	63·5	2·06	52·2
On the Plates - -	1·47	37·4	1·37	34·9	1·13	28·7

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 1909	=	4·0179
Millimètre-milligramme-second,	or Metric unit,	,, ,, ,,	=	1·8526
Centimètre-gramme-second,	or C.G.S. unit,	,, ,, ,,	=	0·18526

Dividing, therefore, the scale values last given by 4·0179, 1·8526, and 0·18526 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 Photo-graphs.		On the Plates.		On the Photo-graphs.		On the Plates.		On the Photo-graphs.		On the Plates.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.
British - - - -	0·67	16·9	0·37	9·3	0·62	15·8	0·34	8·7	0·51	13·0	0·28	7·1
Metric - - - -	1·45	36·7	0·80	20·2	1·35	34·3	0·74	18·8	1·11	28·2	0·61	15·5
C.G.S. - - - -	14·5	367	8·0	202	13·5	343	7·4	188	11·1	282	6·1	155

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

Year.	Declination West.	Horizontal Force, C.G.S. Unit.	Dip.	Year.	Declination West.	Horizontal Force, C.G.S. Unit.	Dip.
	° ′		° ′		° ′		° ′
1841	23.16·2	...	...	1875	19.21·2	0·1795	67.42·3
1842	23.14·6	...	...	1876	19. 8·3	0·1797	67.40·9
1843	23.11·7	...	69. 0·6	1877	18.57·2	0·1799	67.39·6
1844	23.15·3	...	69. 0·3	1878	18.49·3	0·1801	67.38·1
1845	22.56·7	...	68.57·5	1879	18.40·5	0·1803	67.36·9
1846	22.49·6	0·1731	68.58·1	1880	18.32·6	0·1804	67.35·6
1847	22.51·3	0·1736	68.59·0	1881	18.27·1	0·1805	67.34·6
1848	22.51·8	0·1731	68.54·7	1882	18.22·3	0·1804	67.34·1
1849	22.37·8	0·1733	68.51·3	1883	18.15·0	0·1810	67.31·6
1850	22.23·5	0·1738	68.46·9	1884	18. 7·6	0·1812	67.29·6
1851	22.18·3	0·1744	68.40·4	1885	18. 1·7	0·1816	67.27·8
1852	22.17·9	0·1745	68.42·7	1886	17.54·5	0·1816	67.27·0
1853	22.10·1	0·1748	68.44·6	1887	17.49·1	0·1818	67.26·4
1854	22. 0·8	0·1749	68.47·7	1888	17.40·4	0·1820	67.25·4
1855	21.48·4	0·1756	68.44·6	1889	17.34·9	0·1821	67.24·1
1856	21.43·5	0·1759	68.43·5	1890	17.28·6	0·1823	67.22·9
1857	21.35·4	0·1769	68.31·1	1891	17.23·4	0·1825	67.21·4
1858	21.30·3	0·1762	68.28·3	1892	17.17·4	0·1827	67.19·9
1859	21.23·5	0·1761	68.26·9	1893	17.11·4	0·1829	67.17·8
1860	21.14·3	...	68.30·1	1894	17. 4·6	0·1829	67.17·3
1861	21. 5·5	0·1773	68.24·6	1895	16.57·4	0·1832	67.16·0*
		0·1757	68.15·8	1896	16.51·7*	0·1833*	67.15·0*
1862	20.52·6	0·1761	68. 9·6	1897	16.45·8*	0·1836	67.13·4*
1863	20.45·9	0·1763	68. 7·0	1898	16.39·2*	0·1838	67.11·8
1864	...	0·1765	68. 4·1	1899	16.34·2	0·1842	67.10·2
1865	20.33·9	0·1765	68. 2·7	1900	16.29·0	0·1844	67. 8·5
1866	20.28·0	0·1771	68. 1·3	1901	16.26·0	0·1848	67. 6·1
1867	20.20·5	0·1776	67.57·2	1902	16.22·8	0·1850	67. 3·4
1868	20.13·1	0·1777	67.56·5	1903	16.19·1	0·1850	67. 0·9
1869	20. 4·1	0·1780	67.54·6	1904	16.15·0	0·1852	66.57·2
1870	19.53·0	0·1782	67.52·4	1905	16. 9·9	0·1852	66.55·9
1871	19.41·9	0·1785	67.50·2	1906	16. 3·6	0·1852	66.55·3
1872	19.36·8	0·1787	67.47·9	1907	15.59·8	0·1853	66.56·0
1873	19.33·4	0·1791	67.45·6	1908	15.53·5	0·1853	66.56·3
1874	19.28·9	0·1795	67.43·6	1909	15.47·6	0·1853	66.54·0

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

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

Slight interruptions in the traces on the plates are due to various causes. In the originals there are breaks at each hour for time scale, so slight, however, that in the copies the traces could usually be made continuous without fear of error : in a few cases, however, this could not be done. Further, to check the numeration of hours, the observer interrupts the register at definite times for about five minutes, usually at or near $9^h\ 30^m$, $12^h\ 30^m$, and $20^h\ 30^m$ Greenwich civil time, 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 $0^{in}\cdot565$ in diameter, and the depression of the mercury due to capillary action is $0^{in}\cdot002$, 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 $0^{in}\cdot05$, sub-divided by vernier to $0^{in}\cdot002$.

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

An elaborate comparison of the standard barometers of the Greenwich and Kew

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

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

The barometer is read at 9^h, 12^h (noon), 15^h, 21^h (civil reckoning) every day; it was read formerly at 10^h, noon, and 20^h on Sundays and public holidays until the end of April 1909. 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 aluminium, having a small horizontal slit, whose distance from the fulcrum is about eight times that of the point of connexion with the float, and whose vertical movement is therefore about four times that of the ordinary barometric column. The light of a gas lamp, passing through this slit and falling on a cylindrical lens, forms a spot of light on the paper. The barometer can, by screw action, be raised or lowered so as to keep the photographic trace in a convenient part of the sheet. A base line is traced on the sheet, and the record is interrupted at each hour by the clock, and occasionally by the observer, in the same way as for the magnetic registers. The length of the time scale is also the same.

The barometric scale is determined by experimentally comparing the measured movement on the paper with the observed movement of the standard barometer; one inch of barometric movement is thus found = $4^{in}\cdot16$ on the paper. Ordinates measured for the times of observation of the standard barometer, combined with the corrected readings of the standard barometer, give apparent values of the base line,

from which mean values for each day are formed; these are written on the sheets and new base lines drawn, from which the hourly ordinates (see page *lii*) are measured as for the magnetic registers. As the diurnal change of temperature in the Basement is very small, no appreciable differential effect is produced on the photographic register by the expansion of the column of mercury.

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

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

The corrections to be applied to the thermometers in ordinary use are determined, usually once each year for the whole extent of scale actually employed, by observations

at 32° in pounded ice and by comparison with the standard thermometer No. 515, kindly supplied to the Royal Observatory by the Kew Committee of the Royal Society.

The dry bulb thermometer used throughout the year was Negretti and Zambra, No. 45354. The correction −0°·4 has been applied to the readings of this thermometer. The wet bulb thermometer used throughout the year was Negretti and Zambra, No. 94737. The correction −0°·2 has been applied to the readings of this thermometer.

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

The dry and wet bulb thermometers are read at 9^h, 12^h (noon), 15^h, 21^h (civil reckoning) every day since May 1; previously they were read at 10^h, noon, and 20^h on Sundays and public holidays. Readings of the maximum and minimum thermometers are taken at 9^h, 15^h and 21^h every day since May 1; previously at 10^h and 20^h on Sundays and public holidays. 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°·1 has been applied. The wet-bulb is Hicks No. 268525, and the maximum thermometer is Negretti and Zambra, No. 85059, neither of which required correction. To the readings of the minimum thermometer, Negretti and Zambra, No. 68873, a correction of +0°·1 has been applied.

Experiments were made in the summer of the year 1887 on days of extreme heat, to determine whether, with the door of the screen open, the thermometers were in any way influenced by radiation from external objects, an account of which will be found at the end of the Introduction to the volume for 1887. The effect of radiation with the door of the screen open was found to be insensible.

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 1908 was Hicks, No. 268524, to the readings of which a correction of $-0^{\circ}\cdot1$ has been applied. Negretti and Zambra, No. 37467, is a self-registering maximum thermometer, to the readings of which a correction of $-0^{\circ}\cdot4$ has been applied. No. 342663, by Hicks, is a self-registering minimum thermometer, to the readings of which corrections have been applied as follow: below 45° + $0^{\circ}\cdot1$, 45° to 55° + $0^{\circ}\cdot2$, and above 55° + $0^{\circ}\cdot3$. 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, of which the former required no correction to its readings. To the readings of the maximum thermometer, Negretti and Zambra, No. 94859, a correction of $-0^{\circ}\cdot4$ has been applied, and to those of the minimum thermometer and the wet-bulb thermometer, Negretti and Zambra, Nos. 85080 and 94714, a correction of $+0^{\circ}\cdot1$ has been applied.

PHOTOGRAPHIC DRY-BULB AND WET-BULB THERMOMETERS.—The apparatus 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. The south boards were replaced during 1908 as a precaution against indirect effects from the gravel path to the south of the shed.

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

RADIATION THERMOMETERS.—These thermometers are placed in the Magnetic Pavilion enclosure, in an open position about 50 feet south-west of the building. The thermometer for solar radiation is a self-registering mercurial maximum thermometer on Negretti and Zambra's principle, with its bulb blackened, and the thermometer enclosed in a glass sphere from which the air has been exhausted. The thermometer employed at the beginning of the year was Negretti and Zambra, No. 99993. On December 3 it was broken and Negretti and Zambra, No. 99989 issued to replace it. The thermometer for radiation to the sky is a self-registering spirit minimum thermometer of Rutherford's construction, by Horne and Thornthwaite, No. 3120. The thermometers are laid on short grass and freely exposed to the sky; they require no correction for index-error.

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

The thermometers are four in number, placed in one hole in the ground, the diameter of which in its upper half is 1 foot and in its lower half about 6 inches,

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

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

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

The parts of the tubes above the ground are protected by a small wooden hut fixed to the ground; the sides of the hut are perforated with numerous holes, and it has a double roof; in the north face is a plate of glass, through which the readings are taken. Within the hut are two small thermometers—one, No. 5, with bulb 1 inch in the ground; another, No. 6, whose bulb is freely exposed in the centre of the hut.

These thermometers are read every day at noon, and the readings are given without correction. The index-errors of Nos. 1, 2, 3, and 4 are unknown; No. 6 appears to read too high by 0°·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. The vane, which had been in use since the year 1841, began in the autumn of 1891 to show signs of weakness; it was taken down in December 1891 and thoroughly repaired. It was satisfactory to find that the anti-friction bearings of the vane, on which the sensitiveness of its motion depends, were in excellent condition, after having been continuously in action for 25 years.

For the pressure of the wind the construction is as follows:—At a distance of 2 feet below the vane there is placed a circular pressure plate (with its plane vertical) having an area of $1\frac{1}{3}$ square feet, or 192 square inches, which, moving with the vane in azimuth, and being thereby kept directed towards the wind, acts against a combination of springs in such way that, with a light wind, slender springs are first brought into action, but, as the wind increases, stiffer springs come into play. For a detailed account of the arrangement adopted, the reader is referred to the Introduction for the year 1866. [Until 1866 the pressure plate was a square plate, 1 foot square, for which in that year a circular plate, having an area of 2 square feet, was substituted and employed until the spring of the year 1880, when the present circular plate, having an area of $1\frac{1}{3}$ square feet, was introduced.] A short flexible snake chain, fixed to a cross bar in connexion with the pressure plate, and passing over a pulley in the upper part of the shaft, is attached to a brass chain (formerly a copper wire) running down the centre of the shaft to the registering table, just before reaching which the chain communicates with a short length of silk cord, which, led round a pulley, gives horizontal motion to the arm carrying the pressure pencil. The substitution, in the year 1882, of the flexible brass chain for the copper wire, has greatly increased the delicacy of movement of the pressure pencil, every small movement of the pressure plate being now registered. The scale for pressure, in lbs. on the square foot, is experimentally determined from time to time as appears necessary; the pressure pencil is brought to zero by a light spiral spring. During the year 1907 a new set of pressure springs was supplied by

Messrs Simms. Advantage was taken of this opportunity to endeavour to simplify the determination of mean pressures by arranging that the scale should change only once, low pressures being represented on twice as large a scale as high ones, and adjusting screws and clamps were also introduced by which the strength could be varied so that the springs could be adjusted to scale, instead of a new scale being determined from time to time.

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

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

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

ROBINSON'S ANEMOMETER.—This instrument, made by Mr. Browning, is constructed on the principle described by Dr. Robinson in the *Transactions of the Royal Irish Academy*, vol. xxii., for registration of the horizontal movement of the air, and is mounted above the small building on the roof of the Octagon Room. It was brought into use in 1866 October. The motion is given by the pressure of the wind on four hemispherical cups, each 5 inches in diameter, the centre of each cup being 15 inches distant from the vertical axis of rotation. The foot of the axis is a hollow flat cone bearing upon a sharp cone, which rises up from the base of a cup of oil. An endless screw acts on a train of wheels furnished with indices for reading off the amount of motion of the air in miles, and a pinion on the axis of one of the wheels draws upwards a rack, to which is attached a rod passing down to the pencil which marks the paper placed on the vertical revolving cylinder in the chamber below. A motion of the pencil upwards through a space of 1 inch represents horizontal motion of the air through 100 miles. The revolving hemispherical cups are 21 feet above the roof of the Octagon Room, 56 feet above the adjacent ground, and 211 feet above the mean level of the sea.

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

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 1909 eight rain gauges were employed, placed at different elevations above the ground, complete information in regard to which will be found at page (cxiv) of the Meteorological Section.

The gauge No. 1 forms part of the Osler Anemometer apparatus, and is self-registering, the record being made on the sheet on which the direction and pressure of the wind are recorded. The receiving surface is a rectangular opening 10×20 inches (200 square inches in area). The collected water passes into a vessel suspended by spiral springs, which lengthen as the water accumulates, until 0·25 inch is collected. The water then discharges itself by means of the following modification of the siphon. A vertical copper tube, open at both ends, is fixed in the receiver, with one end just projecting below the bottom. Over this tube a larger tube, closed

at the top, is loosely placed. The accumulating water, having risen to the top of the inner tube, begins to flow off into a small tumbling bucket, fixed in a globe placed underneath, and carried by the receiver. When full, the bucket falls over, throwing the water into a small exit pipe at the lower part of the globe—the only outlet. This creates a partial vacuum in the globe sufficient to cause the longer leg of the siphon to act, and the whole remaining contents of the receiver then run off, through the globe, to a waste pipe. The spiral springs at the same time shorten, and raise the receiver. The gradual descent of the water vessel as the rain falls, and the immediate ascent on discharge of the water, act upon a pencil, and cause a corresponding trace to be made on the paper fixed to the moving board of the anemometer. The rain scale on the paper was determined experimentally by passing a known quantity of water through the receiver. The continuous record thus gives complete information on the rate of the fall of rain, but the record is liable to interruption when the staging is erected for experiments with the Osler Anemometer, as was the case for some weeks during 1909.

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

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

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

The height of the Standard gauge above mean sea-level was determined by Mr. H. A. H. Christie on 1908 February 26, and was found to be 5 feet 9 inches less than in its old position in the Observatory Grounds, before removal to the Pavilion Enclosure.

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

ELECTROMETER.—The electric potential of the atmosphere is measured by means of a Thomson self-recording 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 comparable 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 the late Mr. Campbell, was substituted for the defective globe.

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

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

§ 7. *Meteorological Reductions.*

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

All results in regard to atmospheric pressure, temperature of the air and of evaporation with deductions therefrom, and atmospheric electricity, are derived from the photographic records, excepting that the maximum and minimum values of air temperature are those given by eye observation of the ordinary maximum and minimum thermometers at 9^h 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 (lxv) and (lxvi)) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pages (lxiv) and (lxv)).

The excess of the mean temperature of the air on each day above the average of 65 years, given in the "Daily Results of the Meteorological Observations," is found by comparing the numbers contained in column 6 with a table of average daily temperatures found by smoothing the accidental irregularities of the daily means deduced from the observations for the sixty-five years 1841–1905. In this series the mean daily temperature from 1841 to 1847 depends usually on 12 observations daily, in 1848 on 6 observations daily, and from 1849 to 1905 on 24 hourly readings from the photographic record. The smoothed numbers are given in the following table.

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

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

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

The daily register of rain contained in column 16 is that recorded by the gauge No. 6, whose receiving surface is 5 inches above the ground. This gauge is usually read at 9^h, 15^h, and 21^h Greenwich civil time. The continuous record of Osler's self-registering gauge shows whether the amounts measured at 9^h are to be placed to the same, or to the preceding civil day; and in cases in which rain fell both before and after midnight, also gives the means of ascertaining the proper proportion of the 9^h amount which should be placed to each civil day. The number of days of rain given in the foot-notes, and in the abstract tables, pages (lxiii) and (cxiv), is formed from the records of this gauge. In this numeration only those days are counted on which the fall amounted to or exceeded $0^{in}{\cdot}005$.

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 (xxxvii) to (lix), and in the abstract table, page (lxiii), is the mean found from observations made usually at 9^h, 12^h (noon), 15^h, and 21^h of each civil day.

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

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

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

The following is the notation employed for Electricity:—

N denotes *negative*	w denotes *weak*
P ... *positive*	s ... *strong*
m ... *moderate*	v ... *variable*

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

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

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

The tables following the "Daily Results" require no lengthened explanation. They consist of tables giving the highest and lowest readings of the barometer through the year; monthly abstracts of the principal meteorological elements; hourly values in each month of barometer-reading, of temperature of air, evaporation, and dew-point, and of degree of humidity; sunshine results; 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 parhelia, paraselenæ, and meteors.

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

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

pages (xxxvi) to (lviii), and in the table on page (lxiii), 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 (xcix), 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 (cviii), 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 $0^{in}{\cdot}020$, 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 (cviii) and (cix) 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 1908 were Mr. Edney, Mr. Kirby, Mr. Loomes and Mr. Timbury. Their observations are distinguished by the initials E., K., L. and T. respectively. A few observations taken by Mr. Crommelin are distinguished by the initials A.C.

F. W. DYSON.

ROYAL OBSERVATORY, GREENWICH,
1911, *February* 21.

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL OBSERVATIONS

(EXCLUDING DAYS OF GREAT MAGNETIC DISTURBANCE),

1909.

TABLE I.—MEAN MAGNETIC DECLINATION WEST FOR EACH CIVIL DAY.

(Each result is the mean of 24 hourly ordinates from the photographic register.)

1909.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°
d	′	′	′	′	′	′	′	′	′	′	′	′
1	51·2	50·2	49·8	48·2	50·3	47·1	48·7	45·6	47·3	45·8	45·4	43·7
2	50·4	49·4	49·3	49·5	50·5	47·5	49·2	46·8	46·9	44·9	45·4	43·6
3	50·0	48·6	49·5	49·7	49·9	47·2	48·7	46·8	46·9	44·4	45·4	44·4
4	51·3	49·4	49·5	50·5	50·5	47·2	47·9	47·1	46·0	45·2	45·2	44·5
5	50·2	49·7	48·8	50·8	50·8	47·5	47·9	46·9	46·3	44·4	45·2	44·2
6	50·3	49·7	50·3	50·8	50·8	47·5	48·8	46·9	46·3	44·6	45·9	43·8
7	50·5	49·0	49·5	50·5	50·8	47·9	48·7	46·0	46·2	45·7	45·3	44·1
8	51·0	49·1	49·1	51·5	51·0	47·4	47·1	46·9	46·2	44·9	45·7	43·9
9	50·9	50·1	49·5	52·7	51·4	47·0	47·0	48·2	46·7	44·0	45·4	44·2
10	50·7	49·2	49·3	52·9	51·6	47·0	47·9	46·7	46·6	44·1	45·3	44·1
11	50·5	49·7	49·9	51·4	52·1	47·7	48·3	46·5	46·3	45·0	45·1	43·7
12	51·0	50·1	49·5	51·2	51·4	47·4	47·9	46·7	46·2	44·3	45·1	43·8
13	52·1	50·1	49·7	50·5	51·2	46·7	46·6	46·2	46·2	44·5	45·1	43·8
14	50·2	50·5	49·0	50·0	...	47·5	45·5	45·9	46·8	44·7	44·8	43·9
15	50·7	49·9	49·1	50·5	49·5	46·9	47·3	46·3	46·2	45·5	45·4	42·8
16	51·1	49·7	49·3	50·0	50·3	46·7	46·6	46·0	46·8	44·3	45·6	43·2
17	51·1	50·2	49·9	49·2	49·9	46·5	46·2	46·8	46·3	44·3	45·2	43·8
18	51·0	49·9	51·8	49·8	52·1	47·1	44·6	47·1	45·3	43·7	45·6	43·4
19	51·4	49·9	50·1	50·2	51·3	46·8	45·6	46·7	45·5	43·0	45·6	43·9
20	51·3	50·0	48·5	49·7	50·2	47·1	46·5	46·5	45·8	45·0	46·6	...
21	51·2	51·2	49·4	50·2	51·1	46·7	46·6	46·7	45·5	43·8	45·1	...
22	50·8	50·3	48·7	50·0	50·6	48·4	46·6	46·6	44·7	44·7	45·4	...
23	51·0	49·7	49·0	50·3	50·8	51·1	45·6	46·1	45·9	47·1	45·7	43·3
24	50·5	50·8	48·1	49·2	50·4	49·1	46·8	46·1	45·9	43·6	45·5	43·7
25	50·5	50·8	47·3	48·2	50·0	48·8	45·3	46·2	...	45·1	45·7	43·7
26	50·7	50·7	47·2	49·4	49·0	48·8	46·3	45·9	44·3	45·8	45·4	44·1
27	49·8	51·1	48·4	49·4	48·4	48·7	44·9	45·9	45·3	45·9	45·5	43·5
28	49·7	49·9	47·3	49·3	47·9	49·4	45·1	46·3	45·5	45·9	45·0	43·4
29	50·7		50·0	49·0	47·4	49·2	45·5	46·3	45·7	46·0	45·0	43·7
30	50·2		47·4	48·8	47·5	48·8	44·8	45·9	45·5	45·8	45·0	44·0
31	47·3		46·8		48·5		45·2	46·3		45·6		...

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

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

1909.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	′	′	′	′	′	′	′	′	′	′	′	′
Midn.	1·1	0·3	0·3	2·7	3·4	3·3	2·4	2·6	1·5	0·4	0·6	0·2
1h	1·9	0·7	0·9	2·8	3·5	3·5	2·6	2·4	1·6	0·6	1·0	0·9
2	2·6	0·5	1·1	2·8	3·2	3·5	2·7	2·4	1·8	0·8	1·4	1·8
3	2·9	0·3	1·2	3·1	3·0	3·2	2·6	2·3	1·9	1·3	1·7	2·2
4	2·6	0·3	1·5	3·0	2·6	2·4	2·1	2·0	1·8	1·7	1·6	2·4
5	2·6	0·4	1·6	2·6	2·0	1·3	0·9	1·0	1·5	1·7	1·5	2·2
6	2·5	0·6	1·5	2·0	1·3	0·4	0·4	0·5	0·9	1·6	1·2	2·0
7	2·4	0·8	1·2	0·9	0·6	0·0	0·0	0·0	0·2	1·0	1·1	2·0
8	2·3	1·2	0·5	0·0	0·0	0·0	0·1	0·1	0·0	0·3	0·9	1·9
9	2·4	1·8	0·7	0·2	0·6	0·9	0·8	1·4	0·8	0·4	0·9	1·8
10	3·2	2·6	2·4	2·3	2·5	2·7	2·2	3·9	2·6	1·6	2·0	2·2
11	4·4	3·6	5·1	5·3	5·5	5·3	4·5	6·6	5·2	4·5	3·7	3·4
Noon.	5·6	4·1	7·0	8·5	8·1	7·7	6·7	9·3	7·6	6·6	4·7	4·3
13h	6·5	4·7	8·1	10·2	9·2	8·7	7·9	9·7	8·5	7·2	5·0	4·9
14	6·3	4·4	8·0	10·1	9·1	9·0	8·3	9·0	8·2	6·6	4·7	4·7
15	5·4	3·6	7·2	8·7	8·1	8·4	7·8	7·5	6·9	5·1	3·9	4·1
16	4·4	2·6	5·6	7·0	6·8	7·6	6·6	5·7	5·4	3·4	3·2	3·3
17	3·8	2·1	4·1	5·5	5·4	6·5	5·3	4·0	3·6	2·2	2·3	2·6
18	3·1	1·4	3·0	4·3	4·2	5·4	4·3	2·9	2·6	1·5	1·6	2·2
19	2·2	0·9	2·1	3·8	3·7	4·8	3·6	2·6	2·0	1·1	1·0	1·7
20	1·2	0·3	1·6	3·3	3·5	4·4	3·3	2·4	1·6	0·6	0·7	1·1
21	0·3	0·1	1·2	3·1	3·5	3·9	3·0	2·4	1·5	0·1	0·1	0·4
22	0·0	0·0	0·6	3·1	3·7	3·7	2·5	2·4	1·4	0·0	0·0	0·1
23	0·2	0·1	0·0	3·0	3·3	3·4	2·2	2·5	1·3	0·1	0·1	0·0
Means	2·91	1·56	2·77	4·10	4·03	4·17	3·45	3·57	2·93	2·10	1·87	2·18

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.)*

1909.

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	071	553	905	415	994	508	030	610	021	581	136	740	235	803	435	055	326	898	005	587	234	690	567	147
2	944	507	973	466	985	497	996	549	030	610	148	728	238	813	432	033	338	901	080	688	240	725	609	193
3	819	394	930	463	005	519	009	569	013	609	151	721	243	825	351	931	357	929	091	731	171	706	708	285
4	714	315	975	552	940	433	000	568	058	623	150	739	307	906	363	955	303	911	151	774	122	673	678	248
5	850	406	938	546	963	445	002	589	024	620	174	768	260	849	397	003	334	950	165	764	026	606	677	230
6	912	454	961	526	943	455	020	609	064	684	187	743	277	876	395	001	333	946	136	708	027	599	657	227
7	938	494	944	483	961	480	076	634	159	727	145	737	326	910	405	028	323	898	095	684	990	579	700	251
8	948	504	941	474	960	506	034	623	050	644	182	762	335	927	389	017	246	816	174	770	928	520	713	252
9	993	549	997	532	966	514	010	633	043	627	177	761	307	887	321	951	160	761	981	549	930	502	730	265
10	002	579	952	496	972	523	080	676	045	637	197	791	314	908	340	980	...	...	994	610	917	509	690	279
11	011	607	962	522	994	542	097	681	075	669	175	738	368	945	348	990	...	...	001	646	901	471	743	354
12	999	579	988	544	022	552	090	672	075	674	085	677	350	927	345	002	207	811	086	678	917	518	814	360
13	987	555	995	539	018	546	138	713	067	632	127	723	315	911	333	005	215	811	082	678	878	477	738	301
14	948	530	007	542	022	541	111	734	...	...	153	778	372	978	325	000	234	823	103	671	890	438	571	139
15	946	530	985	562	013	532	132	726	692	279	147	751	328	929	358	046	217	794	090	691	818	362	649	214
16	947	519	003	547	016	532	049	645	874	456	156	757	358	950	363	069	208	807	140	736	811	357	647	205
17	961	521	979	527	020	543	035	636	904	503	158	757	412	008	381	058	255	868	146	745	801	361	667	237
18	960	564	977	542	983	541	073	684	841	437	197	789	385	996	370	025	297	889	113	707	797	374	722	294
19	982	564	030	574	892	491	057	668	807	399	215	821	343	968	341	981	280	860	871	463	778	355	625	173
20	974	542	033	570	865	469	042	638	920	509	281	880	322	923	340	985	273	855	047	641	716	296	...	...
21	985	550	982	554	932	521	040	665	000	616	293	894	365	969	385	003	146	723	118	688	698	268	...	...
22	990	546	908	492	944	545	147	736	052	668	267	859	328	934	345	946	135	722	103	678	711	264	...	...
23	046	585	930	476	975	569	174	770	070	690	180	772	318	924	331	939	218	807	975	571	725	281	666	253
24	032	578	945	496	021	596	168	772	072	680	220	802	218	810	444	064	250	849	975	557	736	284	727	280
25	006	539	967	504	072	632	122	709	150	744	219	787	249	853	469	082	...	...	930	500	753	316	675	212
26	942	477	993	509	982	559	030	629	175	757	161	748	238	837	471	075	739	323	915	499	764	317	626	194
27	980	503	018	534	965	537	083	653	170	742	202	798	243	842	425	031	940	515	914	530	755	344	631	242
28	923	437	959	478	862	466	042	626	207	782	267	868	302	910	440	039	990	558	949	553	757	353	727	323
29	972	461			934	518	050	637	158	752	200	816	307	906	356	957	019	611	984	540	858	459	724	296
30	937	433			065	625	024	599	140	727	237	812	354	950	334	935	034	602	075	562	642	200	626	179
31	810	295			042	626			156	757			403	016	311	895			133	607			...	...

The suspension thread was gradually giving way during December, and finally broke on the 31st after experiments had been 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.

1909.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	62°·7	63°·9	64°·1	66°·9	66°·1	67°·9	66°·4	68°·6	66°·6	67°·0	61°·5	66°·9
2	66·2	63·2	64·0	65·8	66·9	66·9	66·7	67·8	66·2	68·1	62·8	67·1
3	66·7	64·9	64·1	66·1	67·6	66·5	67·0	66·9	66·6	69·4	65·0	66·8
4	67·8	66·8	63·2	66·4	66·3	67·3	67·7	67·4	68·1	68·7	65·7	66·5
5	65·9	68·1	62·7	67·2	67·6	67·5	67·3	68·0	68·4	67·7	66·9	65·8
6	65·3	66·3	64·0	67·3	68·6	65·9	67·7	68·0	68·3	66·6	66·6	66·5
7	65·9	65·2	64·3	66·0	66·4	67·4	67·1	68·7	66·7	67·3	67·3	65·7
8	65·9	64·9	65·5	67·3	67·5	66·9	67·4	68·9	66·5	67·6	67·4	65·2
9	65·9	65·0	65·6	68·7	67·1	67·1	66·9	69·0	67·8	66·4	66·6	65·0
10	66·8	65·4	65·7	67·6	67·4	67·5	67·5	69·4	...	68·4	67·4	67·3
11	67·6	66·1	65·6	67·1	67·5	66·2	66·8	69·5	...	69·6	66·5	68·2
12	66·9	65·9	64·8	67·0	67·7	67·4	66·8	70·1	67·9	67·4	67·8	65·5
13	66·4	65·4	64·7	66·7	66·3	67·6	67·6	70·7	67·6	67·6	67·7	66·2
14	67·0	65·0	64·3	68·7	...	68·8	68·0	70·8	67·3	66·4	65·6	66·4
15	67·1	66·8	64·3	67·5	67·2	67·9	67·8	71·3	66·8	67·8	65·4	66·3
16	66·6	65·4	64·2	67·6	67·0	67·8	67·4	72·0	67·7	67·6	65·5	66·0
17	66·1	65·6	64·5	67·8	67·7	67·7	67·6	70·9	68·3	67·7	66·1	66·5
18	67·9	66·3	66·0	68·2	67·6	67·4	68·2	70·0	67·4	67·5	66·8	66·6
19	67·0	65·4	67·7	68·2	67·4	68·0	68·8	69·4	66·9	67·4	66·8	65·6
20	66·4	65·1	67·9	67·6	67·3	67·7	67·8	69·6	67·0	67·5	66·9	...
21	66·3	66·6	67·3	68·8	68·4	67·8	67·9	68·5	66·8	66·5	66·5	...
22	65·9	67·1	67·8	67·3	68·4	67·4	68·0	67·8	67·2	66·7	65·8	...
23	65·2	65·5	67·5	67·6	68·6	67·4	68·0	68·1	67·3	67·6	65·9	67·2
24	65·5	65·7	66·7	67·9	68·1	67·0	67·4	68·6	67·7	67·0	65·6	65·8
25	64·9	65·1	66·1	67·2	67·5	66·4	67·9	68·3	...	66·5	66·2	65·1
26	65·0	64·2	66·8	67·7	67·0	67·2	67·7	67·9	67·1	67·1	65·8	66·4
27	64·5	64·2	66·6	66·5	66·6	67·6	67·7	68·0	66·7	68·4	67·3	68·2
28	64·1	64·3	67·9	67·1	66·7	67·8	68·1	67·7	66·4	67·9	67·6	67·6
29	63·0		67·1	67·2	67·5	68·4	67·7	67·8	67·4	65·9	67·8	66·6
30	63·3		66·1	66·7	67·2	66·7	67·6	67·8	66·4	62·9	66·0	65·8
31	62·8		67·1		67·8		68·3	67·1		62·3		...
Means	65°·76	65°·48	65°·62	67°·32	67°·37	67°·37	67°·57	68°·86	67°·23	67°·18	66°·23	66°·40

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

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

1909.

Hour, Greenwich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	u	*c*	*u*	*c*	*u*	*c*	*u*	*c*	*u*	*c*	*u*	*c*	*u*	*c*	*u*	*c*	*u*	*c*	*u*	*c*	*u*	*c*	*u*	*c*
Midnight.	50	62	18	39	103	124	175	201	126	148	148	158	174	186	232	246	166	178	145	157	91	103	41	50
1h	52	64	33	51	105	124	166	190	120	139	154	164	173	185	226	240	155	167	147	156	92	101	43	50
2	58	67	36	52	104	120	158	179	118	135	154	164	171	181	217	229	151	160	151	158	97	104	58	65
3	65	72	36	49	106	117	156	173	123	140	147	155	165	172	212	224	154	161	152	159	108	112	67	72
4	80	87	42	53	112	121	166	180	126	138	142	150	168	173	204	214	159	166	158	162	120	122	76	78
5	92	96	52	59	125	132	170	179	112	122	134	139	153	156	187	194	158	162	168	170	130	130	91	91
6	97	99	58	62	124	129	172	179	97	104	117	120	131	134	149	154	151	153	164	164	133	133	101	101
7	95	97	55	57	103	105	155	157	70	75	87	90	97	97	107	109	123	123	140	140	115	112	97	94
8	75	75	42	42	76	76	118	118	38	41	47	47	51	49	57	59	72	72	88	88	86	83	77	74
9	38	38	19	19	36	34	58	55	6	6	7	7	16	14	18	18	25	25	37	34	39	36	41	38
10	5	3	10	10	8	6	14	11	0	0	0	0	0	0	0	0	0	0	8	8	6	3	10	7
11	0	0	0	0	0	0	0	0	10	13	9	9	9	9	6	6	4	4	0	0	0	0	0	0
Noon.	9	9	0	0	21	23	23	25	42	47	24	27	44	44	51	53	55	57	13	15	11	11	7	7
13h	14	16	10	12	50	57	42	49	61	71	52	57	73	78	106	111	91	98	39	43	21	25	22	27
14	22	29	26	30	69	78	73	87	87	102	86	94	115	120	139	146	98	107	69	78	27	36	21	28
15	30	39	23	32	82	96	102	119	122	139	124	134	154	161	163	173	111	123	86	95	27	39	17	26
16	28	42	8	19	79	95	121	140	152	169	153	163	176	183	184	194	125	137	93	105	35	49	19	28
17	40	56	1	14	73	92	140	161	181	200	178	188	194	204	200	212	136	148	99	111	51	67	28	37
18	52	68	13	31	71	90	152	176	196	218	193	203	209	219	214	226	152	166	115	127	62	78	37	46
19	63	82	23	44	82	103	156	182	186	208	200	210	214	226	231	243	166	180	131	143	68	84	45	54
20	67	83	21	44	91	114	161	187	173	195	199	209	211	223	231	245	172	186	140	152	67	83	39	48
21	63	79	23	46	100	126	167	196	157	181	184	196	201	216	229	243	184	196	144	156	64	80	34	41
22	52	68	24	47	105	128	169	195	147	169	170	180	195	210	221	235	186	198	145	154	70	86	29	36
23	42	58	20	43	104	127	168	194	141	163	155	165	184	199	222	236	184	196	148	157	72	88	31	38
Means corrected for Temperature.	57·9		35·6		92·4		138·9		121·8		126·2		143·3		167·1		131·8		113·8		73·5		47·3	

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

1909.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight.	65°·9	65°·9	66°·0	67°·8	67°·7	67°·5	67°·8	69°·1	67°·4	67°·4	66°·4	66°·6	67°·13
1h	65·9	65·8	65·9	67·7	67·6	67·5	67·8	69·1	67·4	67·3	66·3	66·5	67·07
2	65·8	65·7	65·8	67·6	67·5	67·5	67·7	69·0	67·3	67·2	66·2	66·5	66·98
3	65·7	65·6	65·6	67·4	67·5	67·4	67·6	69·0	67·2	67·2	66·1	66·4	66·89
4	65·7	65·5	65·5	67·3	67·3	67·4	67·5	68·9	67·2	67·1	66·0	66·3	66·81
5	65·6	65·3	65·4	67·1	67·2	67·3	67·4	68·8	67·1	67·0	65·9	66·2	66·69
6	65·5	65·2	65·3	67·0	67·1	67·2	67·4	68·7	67·0	66·9	65·9	66·2	66·62
7	65·5	65·1	65·2	66·8	67·0	67·2	67·3	68·6	66·9	66·9	65·8	66·1	66·53
8	65·4	65·0	65·1	66·7	66·9	67·1	67·2	68·6	66·9	66·9	65·8	66·1	66·48
9	65·4	65·0	65·0	66·6	66·8	67·1	67·2	68·5	66·9	66·8	65·8	66·1	66·43
10	65·3	65·0	65·0	66·6	66·8	67·1	67·3	68·5	66·9	66·9	65·8	66·1	66·44
11	65·4	65·0	65·1	66·7	66·9	67·1	67·3	68·5	66·9	66·9	65·9	66·2	66·49
Noon.	65·4	65·0	65·2	66·8	67·0	67·2	67·3	68·6	67·0	67·0	65·9	66·2	66·55
13h	65·5	65·1	65·4	67·0	67·2	67·3	67·5	68·7	67·2	67·1	66·1	66·4	66·71
14	65·7	65·2	65·5	67·3	67·4	67·4	67·5	68·8	67·3	67·3	66·3	66·5	66·85
15	65·8	65·4	65·7	67·4	67·5	67·5	67·6	68·9	67·4	67·3	66·4	66·6	66·96
16	66·0	65·5	65·8	67·5	67·5	67·5	67·6	68·9	67·4	67·4	66·5	66·6	67·02
17	66·1	65·6	65·9	67·6	67·6	67·5	67·7	69·0	67·4	67·4	66·6	66·6	67·08
18	66·1	65·8	65·9	67·7	67·7	67·5	67·7	69·0	67·5	67·4	66·6	66·6	67·13
19	66·2	65·9	66·0	67·8	67·7	67·5	67·8	69·0	67·5	67·4	66·6	66·6	67·17
20	66·1	66·0	66·1	67·8	67·7	67·5	67·8	69·1	67·5	67·4	66·6	66·6	67·18
21	66·1	66·0	66·2	67·9	67·8	67·6	67·9	69·1	67·4	67·4	66·6	66·5	67·21
22	66·1	66·0	66·1	67·8	67·7	67·5	67·9	69·1	67·4	67·3	66·6	66·5	67·17
23	66·1	66·0	66·1	67·8	67·7	67·5	67·9	69·1	67·4	67·3	66·6	66·5	67·17

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

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

1909.

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	689	009	648	942	570	866	690	952	665	921	778	040	728	990	807	057	753	003	855	098	614	965	613	856
2	789	043	636	940	556	860	643	922	650	902	765	029	725	987	798	071	748	995	871	116	635	965	620	865
3	868	126	678	953	559	855	629	895	673	904	745	011	713	994	775	043	735	985	882	117	673	959	600	868
4	890	127	739	974	541	852	636	894	637	893	736	996	721	989	783	043	733	976	869	114	699	967	603	850
5	832	092	781	995	540	870	630	877	648	900	736	998	726	999	780	042	754	995	852	129	730	980	577	839
6	806	079	746	002	533	837	640	896	656	897	705	978	730	988	786	046	744	998	831	110	695	953	581	828
7	807	073	722	986	575	869	603	871	615	896	732	971	719	985	798	043	715	000	857	104	703	946	560	822
8	802	060	707	969	603	867	618	891	639	889	728	988	729	979	806	053	710	976	841	109	695	934	542	796
9	776	030	679	945	617	877	650	889	635	889	711	971	724	003	805	052	720	970	809	092	665	917	525	779
10	776	030	687	941	609	873	625	877	640	892	718	974	729	993	835	072	716	989	830	059	672	926	559	779
11	796	035	695	940	605	869	620	888	646	893	720	993	719	983	829	064	718	974	859	083	643	916	574	805
12	790	052	679	937	575	858	624	888	653	913	727	974	721	964	852	070	735	993	806	072	652	893	523	806
13	777	024	657	928	573	860	608	872	624	895	725	970	726	965	855	062	729	995	805	055	668	920	552	808
14	776	026	640	917	570	857	657	894	...	...	747	986	750	000	867	074	725	983	777	048	621	898	579	818
15	780	034	676	911	558	850	655	909	784	019	723	989	734	998	880	074	708	949	788	038	608	897	539	803
16	768	028	655	919	559	842	654	908	711	965	727	972	739	018	901	087	730	977	786	050	607	884	533	785
17	755	009	654	901	558	835	664	909	707	969	749	999	747	020	882	094	735	961	806	070	618	872	543	790
18	786	010	655	898	612	862	694	933	719	964	733	991	772	030	865	091	723	991	814	078	630	877	533	791
19	779	020	639	907	731	949	699	932	676	930	744	989	788	035	830	071	719	987	806	058	617	860	517	783
20	751	001	620	884	704	941	692	942	722	961	734	000	783	054	830	071	716	972	852	087	629	870	496	779
21	740	000	649	886	698	939	710	926	735	970	742	002	783	047	823	085	748	000	815	096	602	847	487	783
22	726	990	670	901	671	902	664	941	733	983	766	047	782	046	790	054	727	977	804	066	587	845	492	752
23	690	956	635	899	669	904	654	912	742	989	745	990	782	048	794	029	743	022	852	104	574	824	537	801
24	679	966	616	878	667	925	669	919	748	006	745	005	752	020	795	047	739	999	837	108	554	818	522	795
25	679	950	595	870	662	924	673	929	727	006	739	014	784	034	790	054	...	...	779	022	560	814	503	795
26	692	956	579	871	683	935	671	923	730	986	733	976	780	032	797	070	953	228	771	021	546	812	518	772
27	667	940	570	866	661	915	674	945	727	981	737	987	795	045	777	031	886	150	767	991	567	810	567	798
28	651	949	579	871	673	897	700	956	733	985	725	970	799	046	774	047	854	106	753	000	582	825	565	823
29	634	938			602	858	692	946	744	002	735	978	789	060	778	051	853	090	696	973	589	853	543	795
30	641	950			657	919	670	926	751	011	734	005	785	053	790	061	887	153	630	971	586	857	522	797
31	583	907			680	932			760	020			798	045	774	047			603	935			...	...

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.

1909.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	64°·1	65°·3	65°·2	66°·8	67°·1	66°·8	66°·8	67°·4	67°·4	67°·7	62°·6	67°·7
2	67·2	64·8	64·8	66·0	67·3	66·7	66·8	66·3	67·5	67·6	63·6	67·6
3	67·0	66·2	65·2	66·6	68·3	66·6	65·9	66·5	67·4	68·1	66·1	66·5
4	68·0	68·1	64·5	67·0	67·1	66·9	66·5	66·9	67·7	67·6	66·5	67·5
5	66·9	69·1	63·6	67·5	67·3	66·8	66·3	66·8	67·8	66·1	67·4	66·8
6	66·3	67·1	64·8	67·1	67·8	66·3	67·0	66·9	67·2	66·0	67·0	67·5
7	66·6	66·7	65·3	66·5	65·9	67·9	66·6	67·6	65·7	67·5	67·7	66·8
8	67·0	66·8	66·7	66·3	67·4	66·9	67·4	67·5	66·6	66·5	67·9	67·2
9	67·2	66·6	66·9	67·9	67·2	66·9	66·0	67·5	67·4	65·8	67·3	67·2
10	67·2	67·2	66·7	67·3	67·3	67·1	66·7	68·0	66·3	68·4	67·2	68·8
11	67·9	67·6	66·7	66·5	67·5	66·3	66·7	68·1	67·1	68·6	66·3	68·3
12	66·8	67·0	65·8	66·7	66·9	67·5	67·7	68·9	67·0	66·6	67·8	65·8
13	67·5	66·4	65·6	66·7	66·4	67·6	67·9	69·4	66·6	67·4	67·3	67·1
14	67·4	66·1	65·6	68·0	...	67·9	67·4	69·4	67·0	66·4	66·1	67·9
15	67·2	68·1	65·4	67·2	68·1	66·6	66·7	70·0	67·8	67·4	65·5	66·7
16	66·9	66·7	65·8	67·2	67·2	67·6	66·0	70·4	67·5	66·7	66·1	67·3
17	67·2	67·5	66·1	67·6	66·8	67·4	66·3	69·2	68·5	66·7	67·2	67·5
18	68·6	67·7	67·4	67·9	67·6	67·0	67·0	68·5	66·5	66·7	67·5	67·0
19	67·8	66·5	68·9	68·2	67·2	67·6	67·5	67·8	66·5	67·3	67·7	66·6
20	67·4	66·7	68·0	67·4	67·9	66·6	66·4	67·8	67·1	68·1	67·8	65·8
21	66·9	68·0	67·8	69·0	68·1	66·9	66·7	66·8	67·3	65·9	67·6	65·2
22	66·7	68·3	68·3	66·1	67·4	65·9	66·7	66·7	67·4	66·8	67·0	66·9
23	66·6	66·7	68·1	67·0	67·5	67·6	66·6	68·1	66·0	67·3	67·4	66·7
24	65·6	66·8	67·0	67·4	67·0	66·9	66·5	67·3	66·9	66·4	66·7	66·3
25	66·4	66·2	66·8	67·1	66·0	66·2	67·4	66·7	...	67·7	67·2	65·4
26	66·7	65·4	67·3	67·3	67·1	67·7	67·3	66·3	66·2	67·4	66·6	67·2
27	66·3	65·2	67·2	66·4	67·2	67·4	67·4	67·2	66·7	68·6	67·7	68·3
28	65·1	65·4	68·6	67·1	67·3	67·6	67·5	66·3	67·3	67·5	67·7	67·0
29	64·8		67·1	67·2	67·0	67·7	66·4	66·3	68·0	66·1	66·7	67·3
30	64·6		66·8	67·1	66·9	66·4	66·5	66·4	66·6	63·1	66·4	66·2
31	63·9		67·3		66·9		67·5	66·3		63·5		...
Means	66°·64	66°·79	66°·49	67°·14	67°·22	67°·04	66°·84	67°·59	67°·07	66°·89	66°·79	67°·00

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.*)

1909.

Hour, Greenwich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c
Midnight.	18	11	37	16	41	29	65	52	60	49	56	52	47	41	40	31	29	25	28	24	29	25	19	16
1h	9	4	30	11	29	19	60	50	54	46	48	46	40	34	33	24	23	21	19	15	23	21	13	10
2	7	4	22	7	24	16	55	47	51	45	43	41	36	32	30	23	21	19	14	12	20	18	8	7
3	3	0	20	7	22	16	55	51	49	43	40	40	34	32	28	23	23	23	11	11	17	17	8	7
4	1	1	18	7	21	20	51	49	48	44	41	41	35	35	26	23	23	23	10	10	13	15	7	6
5	0	2	12	3	20	21	48	50	51	49	43	45	38	38	29	29	24	26	9	11	12	14	6	7
6	1	3	7	3	18	21	48	54	48	48	42	44	35	37	31	31	25	29	12	14	10	15	5	8
7	5	9	9	7	21	26	52	60	48	50	41	45	35	39	34	36	28	32	18	22	9	14	5	8
8	7	11	6	6	22	29	47	58	44	48	40	44	36	43	32	36	27	31	21	23	9	14	4	7
9	5	11	4	6	11	18	36	51	33	37	30	34	29	36	23	29	21	25	18	20	7	12	4	5
10	2	6	3	3	2	7	22	33	15	19	16	20	16	20	10	14	9	13	11	15	2	7	0	1
11	7	7	0	0	0	3	8	14	1	5	4	8	5	9	1	5	0	2	0	2	0	0	1	0
Noon.	8	5	4	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	9	5	7	4
13h	16	11	13	4	16	10	10	6	13	9	9	7	5	1	16	11	13	9	16	12	20	12	12	5
14	30	21	22	11	37	29	32	22	30	24	21	17	21	17	31	26	29	23	29	23	32	20	20	11
15	40	29	34	21	59	51	53	40	45	37	36	32	37	33	46	39	46	40	46	40	38	26	31	22
16	46	29	40	25	78	68	67	54	62	54	50	46	49	43	56	47	59	53	58	52	40	28	37	28
17	54	37	45	28	81	69	77	64	76	68	62	58	60	54	64	55	63	57	59	53	47	35	41	32
18	54	37	54	33	78	66	81	66	82	71	69	65	65	57	63	54	65	61	57	51	45	33	42	33
19	48	33	53	30	80	66	80	65	83	72	71	67	65	57	58	49	61	57	50	46	43	33	38	31
20	44	31	51	28	76	62	82	67	76	65	66	62	64	56	54	43	57	53	46	42	39	31	35	30
21	38	27	44	21	68	54	78	63	71	63	64	62	61	51	52	41	47	45	39	37	36	30	30	27
22	30	21	40	17	59	45	71	56	65	57	61	59	55	45	49	38	39	37	31	29	33	27	26	23
23	24	15	38	15	52	38	69	54	60	52	57	55	52	44	45	36	33	31	25	23	29	23	21	18
Means corrected for Temperature.	15·2		12·9		32·6		46·9		44·0		41·2		35·6		31·0		30·6		24·5		19·8		14·4	

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

1909.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight.	66°·7	67°·2	66°·8	67°·5	67°·5	67°·2	67°·0	67°·8	67°·2	67°·0	66°·8	67°·0	67°·14
1h	66·6	67·1	66·7	67·4	67·4	67·1	67·0	67·8	67·1	67·0	66·7	67·0	67·08
2	66·5	66·9	66·6	67·3	67·3	67·1	66·9	67·7	67·1	66·9	66·7	66·9	66·99
3	66·5	66·8	66·5	67·1	67·3	67·0	66·8	67·6	67·0	66·8	66·6	66·9	66·91
4	66·4	66·7	66·3	67·0	67·2	67·0	66·7	67·5	67·0	66·8	66·5	66·9	66·83
5	66·3	66·6	66·2	66·8	67·1	66·9	66·7	67·4	66·9	66·7	66·5	66·8	66·74
6	66·3	66·4	66·1	66·6	67·0	66·9	66·6	67·4	66·8	66·7	66·4	66·7	66·66
7	66·2	66·3	66·0	66·5	66·9	66·8	66·5	67·3	66·8	66·6	66·4	66·7	66·58
8	66·2	66·2	65·9	66·4	66·8	66·8	66·4	67·2	66·8	66·7	66·4	66·7	66·54
9	66·1	66·1	65·9	66·2	66·8	66·8	66·4	67·1	66·8	66·7	66·4	66·8	66·51
10	66·2	66·2	66·0	66·4	66·8	66·8	66·5	67·2	66·8	66·6	66·4	66·8	66·56
11	66·4	66·2	66·1	66·6	66·8	66·8	66·5	67·2	66·9	66·7	66·6	66·9	66·64
Noon.	66·5	66·4	66·3	66·9	67·0	67·0	66·7	67·4	67·1	66·9	66·8	67·0	66·83
13h	66·6	66·6	66·5	67·1	67·2	67·1	66·9	67·6	67·2	67·0	67·0	67·2	67·00
14	66·8	66·7	66·6	67·4	67·3	67·2	66·9	67·6	67·3	67·1	67·2	67·3	67·12
15	66·9	66·8	66·6	67·5	67·4	67·2	66·9	67·7	67·3	67·1	67·2	67·3	67·16
16	67·2	66·9	66·7	67·5	67·4	67·2	67·0	67·8	67·3	67·1	67·2	67·3	67·22
17	67·2	67·0	66·8	67·5	67·4	67·2	67·0	67·8	67·3	67·1	67·2	67·3	67·23
18	67·2	67·2	66·8	67·6	67·5	67·2	67·1	67·8	67·2	67·1	67·2	67·3	67·27
19	67·1	67·3	66·9	67·6	67·5	67·2	67·1	67·8	67·2	67·0	67·1	67·2	67·25
20	67·0	67·3	66·9	67·6	67·5	67·2	67·1	67·9	67·2	67·0	67·0	67·1	67·23
21	66·9	67·3	66·9	67·6	67·4	67·1	67·2	67·9	67·1	66·9	66·9	67·0	67·18
22	66·8	67·3	66·9	67·6	67·4	67·1	67·2	67·9	67·1	66·9	66·9	67·0	67·17
23	66·8	67·3	66·9	67·6	67·4	67·1	67·1	67·8	67·1	66·9	66·9	67·0	67·16

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

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

Month, 1909.	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 15° 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	15° 50′·6	505	1013	2727	936	4400
February	15. 50·0	517	923	2695	958	4009
March	15. 49·1	528	884	2646	978	3839
April	15. 50·1	655	912	2700	1213	3961
May	15. 50·2	628	948	2705	1163	4117
June	15. 47·8	777	993	2576	1439	4313
July	15. 46·8	909	1015	2522	1684	4408
August	15. 46·5	1003	1060	2506	1858	4604
September	15. 46·0	787	1014	2479	1458	4404
October	15. 44·9	639	1064	2420	1184	4621
November	15. 45·4	440	890	2447	815	3865
December	15. 43·8	246	805	2360	456	3496
Means	15° 47′·6	.....	.....	2565	.....	.....
Number of Column	1	2	3	4	5	6

The units in columns 2 and 3 are ·00001 of the whole Horizontal and Vertical Forces respectively; in columns 4, 5, and 6 the unit is ·00001 of the Millimètre-Milligramme-Second Unit, or ·000001 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 1·8526 and 0·18526 respectively for the year, and of the whole Vertical Force (applicable to column 6) are 4·3432 and 0·43432 respectively for the year.

HORIZONTAL FORCE.—The suspension thread was gradually giving way during December and finally broke on the 31st after experiments had been 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 1909.

(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.	0·96	134·3	29·7	51·7	248·8	129·0
1h	1·26	132·5	23·9	67·9	245·5	103·8
2	1·44	131·1	21·4	77·6	242·9	92·9
3	1·53	130·4	21·3	82·5	241·6	92·5
4	1·39	133·6	21·6	74·9	247·5	93·8
5	1·00	132·4	23·4	53·9	245·3	101·6
6	0·63	124·3	24·4	34·0	230·3	106·0
7	0·24	101·3	27·8	12·9	187·7	120·7
8	0·00	65·3	28·0	0·0	121·0	121·6
9	0·45	23·6	22·5	24·3	43·7	97·7
10	1·91	0·6	12·0	102·9	1·1	52·1
11	4·15	0·0	3·4	223·6	0·0	14·8
Noon.	6·07	23·1	0·0	327·1	42·8	0·0
13h	6·94	50·3	6·9	374·0	93·2	30·0
14	6·76	74·5	19·1	364·3	138·0	83·0
15	5·78	94·6	33·0	311·5	175·3	143·3
16	4·52	106·9	42·7	243·6	198·0	185·5
17	3·34	120·8	49·6	180·0	223·8	215·4
18	2·43	133·9	51·0	131·0	248·1	221·5
19	1·85	143·2	49·3	99·7	265·3	214·1
20	1·39	144·0	46·3	74·9	266·8	201·1
21	1·02	142·9	42·2	55·0	264·7	183·3
22	0·85	138·8	36·6	45·8	257·1	159·0
23	0·74	135·3	32·5	39·9	250·7	141·2
Means . . .	2·36	100·7	27·9	127·2	186·6	121·0
Number of Column .	1	2	3	4	5	6

The units in columns 2 and 3 are ·00001 of the whole Horizontal and Vertical Forces respectively; in columns 4, 5, and 6 the unit is ·00001 of the Millimètre-Milligramme-Second Unit, or ·000001 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 1·8526 and 0·18526 respectively, and of the whole Vertical Force (applicable to column 6) are 4·3432 and 0·43432 respectively.

TABLE XIII.—DIURNAL RANGE OF DECLINATION AND HORIZONTAL FORCE, on each CIVIL DAY, as deduced from the TWENTY-FOUR HOURLY MEASURES of ORDINATES of the PHOTOGRAPHIC REGISTERS.

(*The Declination is expressed in minutes of arc; the unit for Horizontal Force is ·00001 of the whole Horizontal Force. The results for Horizontal Force are corrected for temperature.*)

1909.

Day of Month.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.
d																								
1	10·8	463	5·9	114	6·2	124	11·8	169	10·5	171	12·1	262	6·6	272	11·1	327	10·8	272	5·6	284	6·2	170	17·0	232
2	5·4	197	11·0	254	5·3	127	9·7	220	9·7	201	9·0	190	6·4	244	11·8	259	9·5	312	13·3	171	4·5	200	17·7	322
3	30·0	567	12·4	152	8·1	84	9·6	166	8·3	235	11·5	271	10·3	342	11·0	462	11·0	345	7·0	225	6·2	216	2·6	207
4	9·5	378	4·3	74	13·8	274	8·8	202	11·8	201	10·1	316	9·2	287	12·3	399	16·8	382	9·6	203	6·9	153	5·4	130
5	6·7	175	3·4	80	12·0	340	10·8	187	11·1	292	10·3	216	9·5	274	10·0	357	10·6	257	10·0	258	4·3	179	4·0	77
6	5·1	119	12·4	292	10·7	300	12·8	214	12·1	281	9·0	213	9·3	237	10·5	354	9·1	300	8·6	308	7·0	107	8·1	152
7	4·0	134	8·0	55	8·2	192	11·0	189	10·2	189	10·9	308	9·8	294	10·8	162	9·0	230	9·5	214	5·5	145	4·2	94
8	5·3	152	7·5	98	7·8	170	11·9	189	8·5	207	8·6	210	8·3	350	10·7	272	9·0	221	12·0	420	6·8	150	3·4	111
9	4·1	75	5·5	110	6·4	171	11·2	240	10·1	186	9·3	226	9·3	331	7·6	292	8·7	198	14·6	249	4·9	95	5·0	84
10	4·5	119	8·6	97	11·3	104	10·1	319	9·8	211	10·2	238	11·6	258	11·0	277	5·9	...	8·6	184	4·6	137	6·7	67
11	2·8	108	5·7	72	7·3	175	12·0	189	9·3	243	8·8	282	7·4	244	10·0	230	7·3	...	10·0	224	6·0	189	3·1	70
12	2·8	105	4·3	66	7·0	198	13·6	165	13·0	223	9·7	241	13·7	215	10·0	235	8·1	227	7·6	175	3·8	140	3·1	72
13	9·5	231	5·6	115	7·2	222	11·5	131	8·5	196	8·0	283	12·7	342	10·5	271	8·5	253	9·0	198	4·5	140	7·1	466
14	7·8	195	4·4	169	10·0	126	9·2	211	...	...	9·3	348	10·6	231	11·7	281	11·3	233	9·6	206	7·0	186	16·0	501
15	7·0	137	3·8	80	6·0	116	10·3	183	12·5	531	11·4	240	11·7	280	9·9	297	13·1	270	8·8	269	9·8	316	13·1	92
16	5·8	105	3·3	89	8·5	130	13·7	320	7·7	213	13·1	255	8·8	250	9·5	253	10·2	220	7·9	193	7·7	194	5·7	252
17	5·0	192	5·2	119	8·2	172	11·1	281	10·7	205	9·4	342	9·3	162	10·3	301	8·8	256	9·5	180	4·2	107	7·2	147
18	6·8	163	3·6	73	15·6	228	12·4	269	17·1	655	9·6	311	8·7	207	13·1	263	5·2	146	22·2	410	5·6	118	8·0	125
19	5·5	160	1·9	105	22·5	414	13·2	274	12·0	473	9·2	294	10·0	272	10·8	398	9·5	209	25·8	481	4·8	185	4·1	185
20	5·5	183	4·5	99	10·0	257	12·3	314	15·0	447	9·7	247	10·5	252	10·0	317	10·1	209	8·4	365	14·5	383	...	...
21	5·8	132	9·5	165	21·7	208	11·7	254	13·7	324	13·9	193	11·3	367	10·0	172	22·1	365	7·1	220	6·5	194	...	...
22	5·8	135	12·9	295	16·4	264	14·2	249	9·9	327	12·2	316	11·3	265	11·8	366	12·1	272	6·0	260	6·0	160	...	...
23	5·8	139	11·0	230	9·4	296	12·9	243	10·8	229	11·0	260	12·4	391	12·6	361	8·4	272	12·6	548	5·0	130	6·2	184
24	7·0	159	10·8	232	9·0	147	9·2	254	8·0	224	11·6	374	9·3	359	11·1	259	7·2	299	15·6	250	5·4	123	3·3	115
25	12·9	289	6·9	213	12·5	216	14·2	353	6·5	165	7·4	202	6·9	222	12·5	362	...	...	6·5	297	5·5	113	3·8	156
26	7·8	163	6·6	235	14·3	217	9·1	405	8·2	262	10·1	301	6·9	207	10·3	259	5·1	476	6·7	169	5·8	70	6·5	130
27	12·2	242	7·2	166	14·2	257	9·9	381	6·5	212	7·6	280	7·8	175	7·9	305	8·7	127	5·9	202	7·3	271	6·5	155
28	12·0	185	6·8	118	17·3	320	9·8	229	8·2	197	9·6	208	7·8	395	8·4	306	7·0	269	5·2	94	4·3	104	4·6	150
29	11·3	273			17·9	345	10·0	224	9·0	195	5·7	357	8·1	276	16·4	330	9·2	250	6·5	257	4·1	88	4·3	156
30	23·5	475			9·0	185	10·5	223	10·3	255	8·7	297	8·6	237	13·5	337	17·5	368	6·9	183	10·7	642	4·5	157
31	23·0	503			8·4	189			13·2	216			8·9	269	14·5	253			6·1	179			...	...
Means	8·7	215	6·9	142	11·0	212	11·3	242	10·4	266	9·9	269	9·5	274	11·0	301	10·0	268	9·8	254	6·2	180	6·7	170

The mean of the twelve monthly values is, for Declination 9′·28, and for Horizontal Force 232·8.

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, 1909.	Difference between the Greatest and Least of the 24 Hourly Values.			Sum of the 24 Hourly Deviations from the Mean Value.		
	Declination.	Horizontal Force.	Vertical Force.	Declination.	Horizontal Force.	Vertical Force.
January	6′·5	99	37	32′·9	577	255
February	4·7	62	33	31·2	377	211
March	8·1	132	69	52·1	753	453
April	10·2	201	67	53·7	1293	332
May	9·2	218	72	48·0	1273	355
June	9·0	210	67	52·4	1371	346
July	8·3	226	57	48·2	1491	284
August	9·7	246	55	54·6	1696	267
September	8·5	198	61	49·4	1153	321
October	7·2	170	53	41·8	1122	305
November	5·0	133	35	29·3	789	189
December	4·9	101	33	24·6	512	230
Means	7′·61	166·3	53·3	43′·18	1033·9	295·7

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, 1909.	m	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4
	DECLINATION WEST.								
January	2′·91	− 2′·00	− 0′·23	+ 0′·30	+ 1′·36	− 0′·30	+ 0′·02	+ 0′·17	+ 0′·30
February	1·56	− 1·85	− 0·47	+ 0·68	+ 0·54	− 0·10	− 0·06	+ 0·11	+ 0·13
March	2·77	− 2·66	− 1·41	+ 0·72	+ 1·60	− 0·61	− 0·61	+ 0·20	+ 0·19
April	4·10	− 1·92	− 2·13	+ 1·23	+ 2·07	− 0·84	− 0·94	+ 0·30	+ 0·15
May	4·03	− 1·53	− 2·16	+ 1·44	+ 1·74	− 0·65	− 0·64	+ 0·23	+ 0·07
June	4·17	− 1·43	− 2·74	+ 1·22	+ 1·68	− 0·57	− 0·21	+ 0·04	+ 0·07
July	3·45	− 1·60	− 2·27	+ 1·05	+ 1·65	− 0·47	− 0·31	− 0·07	+ 0·16
August	3·57	− 2·37	− 1·73	+ 2·00	+ 1·47	− 0·84	− 0·45	+ 0·18	+ 0·04
September	2·93	− 2·27	− 1·45	+ 1·35	+ 1·65	− 0·71	− 0·57	+ 0·17	+ 0·08
October	2·10	− 2·25	− 0·61	+ 0·91	+ 1·42	− 0·78	− 0·66	+ 0·41	+ 0·22
November	1·87	− 1·61	− 0·34	+ 0·56	+ 1·07	− 0·41	− 0·14	+ 0·17	+ 0·10
December	2·18	− 1·58	− 0·11	+ 0·08	+ 0·99	− 0·40	− 0·11	+ 0·03	+ 0·20
For the Year	2·36	− 1·92	− 1·30	+ 0·96	+ 1·44	− 0·56	− 0·39	+ 0·16	+ 0·14
	HORIZONTAL FORCE.								
January	57·9	+ 27·5	+ 7·9	− 26·9	− 1·0	+ 0·4	− 9·1	+ 1·5	+ 7·4
February	35·6	+ 18·9	+ 8·3	− 10·2	+ 1·8	+ 0·6	− 8·1	− 1·9	+ 6·3
March	92·4	+ 46·0	− 3·0	− 18·0	+ 13·8	+ 5·6	− 20·1	− 0·5	+ 5·5
April	138·9	+ 78·5	− 12·5	− 34·9	+ 10·7	+ 11·3	− 15·8	+ 3·8	+ 6·4
May	121·8	+ 57·2	− 57·5	− 32·1	+ 20·7	− 2·6	− 4·5	+ 6·0	− 0·6
June	126·2	+ 70·3	− 48·7	− 33·7	+ 20·0	− 2·6	− 5·1	+ 2·0	+ 3·0
July	143·3	+ 76·4	− 53·9	− 30·4	+ 25·0	− 1·7	− 11·0	+ 2·3	+ 1·8
August	167·1	+ 95·3	− 49·0	− 22·9	+ 35·7	− 3·0	− 13·9	+ 3·0	+ 6·6
September	131·8	+ 69·0	− 27·2	− 21·7	+ 16·5	− 2·9	− 23·6	+ 6·3	+ 5·9
October	113·8	+ 67·2	0·0	− 29·5	+ 14·3	+ 3·0	− 17·9	+ 2·2	+ 6·6
November	73·5	+ 42·5	+ 18·0	− 25·5	+ 8·6	+ 2·3	− 10·2	+ 6·5	+ 6·0
December	47·3	+ 17·4	+ 20·2	− 22·9	+ 4·8	+ 1·5	− 7·8	+ 3·4	+ 9·0
For the Year	100·7	+ 55·5	− 16·5	− 25·7	+ 14·2	+ 1·0	− 12·3	+ 2·9	+ 5·3
	VERTICAL FORCE.								
January	15·2	− 0·9	− 15·4	− 6·0	− 2·2	+ 2·6	+ 0·1	− 1·2	+ 0·4
February	12·9	+ 4·0	− 11·9	− 5·6	− 0·5	+ 2·4	+ 1·6	− 0·5	+ 0·4
March	32·6	+ 7·0	− 23·5	− 16·3	− 1·7	+ 6·7	− 1·0	− 2·9	− 1·0
April	46·9	+ 15·9	− 3·4	− 16·9	− 5·9	+ 8·1	+ 2·5	− 3·7	+ 0·1
May	44·0	+ 17·3	− 9·3	− 17·7	− 3·6	+ 6·4	+ 1·2	− 1·2	+ 0·8
June	41·2	+ 18·7	− 8·2	− 14·2	− 5·7	+ 5·7	+ 0·9	− 0·5	− 0·2
July	35·6	+ 12·8	− 7·3	− 14·3	− 5·4	+ 6·1	+ 1·8	− 2·0	− 0·6
August	31·0	+ 6·5	− 10·5	− 13·2	− 1·8	+ 7·6	− 0·7	− 1·5	+ 0·1
September	30·6	+ 6·5	− 14·6	− 16·1	− 2·1	+ 5·3	+ 0·4	− 2·1	+ 0·2
October	24·5	+ 2·1	− 16·9	− 11·2	− 1·5	+ 7·1	+ 1·1	− 2·5	0·0
November	19·8	+ 6·2	− 9·7	− 5·0	+ 0·7	+ 2·8	− 0·4	− 0·9	+ 1·0
December	14·4	+ 4·6	− 12·7	− 6·2	− 1·0	+ 2·0	− 0·2	− 0·1	− 0·4
For the Year	27·9	+ 8·4	− 11·9	− 11·9	− 2·6	+ 5·2	+ 0·6	− 1·6	+ 0·1

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, 1909.	m	c_1	α	α'	c_2	β	β'	c_3	γ	γ'	c_4	δ	δ'
	DECLINATION WEST.												
January	2′·91	2′·02	263° 20′	265° 41′	1′·40	12° 30′	17° 11′	0′·30	273° 50′	280° 52′	0′·35	28° 47′	38° 9′
February	1·56	1·91	255. 43	259. 12	0·87	51. 47	58. 46	0·12	240. 12	250. 40	0·17	39. 48	53. 46
March	2·77	3·01	242. 0	244. 11	1·76	24. 14	28. 37	0·86	225. 23	231. 57	0·27	46. 51	55. 36
April	4·10	2·87	222. 1	222. 5	2·41	30. 43	30. 50	1·26	221. 37	221. 48	0·34	63. 30	63. 45
May	4·03	2·65	215. 18	214. 26	2·26	39. 37	37. 54	0·92	225. 20	222. 45	0·24	72. 8	68. 41
June	4·17	3·09	207. 39	207. 43	2·08	35. 58	36. 6	0·60	249. 19	249. 31	0·08	29. 53	30. 9
July	3·45	2·78	215. 10	216. 31	1·96	32. 26	35. 9	0·57	236. 58	241. 2	0·17	337. 16	342. 42
August	3·57	2·94	233. 54	234. 52	2·48	53. 45	55. 41	0·95	241. 56	244. 50	0·18	78. 41	82. 34
September	2·93	2·69	237. 27	236. 14	2·13	39. 23	36. 57	0·91	230. 54	227. 15	0·19	65. 8	60. 16
October	2·10	2·33	254. 44	251. 15	1·69	32. 40	25. 43	1·02	229. 55	219. 29	0·46	62. 3	48. 8
November	1·87	1·64	258. 12	254. 30	1·21	27. 36	20. 13	0·43	251. 9	240. 4	0·20	60. 3	45. 17
December	2·18	1·58	266. 4	265. 0	0·99	4. 38	2. 29	0·41	254. 44	251. 31	0·20	7. 4	2. 46
For the Year	2·36	2·32	235. 51	235. 51	1·73	33. 51	33. 51	0·68	234. 59	234. 59	0·22	48. 31	48. 31
	HORIZONTAL FORCE.												
January	57·9	28·6	74° 3′	76° 24′	26·9	267° 52′	272° 33′	9·1	177° 26′	184° 28′	7·6	11° 6′	20° 28′
February	35·6	20·6	66. 23	69. 52	10·4	279. 58	286. 57	8·1	175. 45	186. 13	6·5	343. 22	357. 20
March	92·4	46·1	93. 47	95. 58	22·7	307. 29	311. 52	20·9	164. 24	170. 58	5·5	354. 47	3. 32
April	138·9	79·5	99. 3	99. 7	36·5	287. 7	287. 14	19·4	144. 21	144. 32	7·5	30. 33	30. 48
May	121·8	81·1	135. 9	134. 17	38·2	302. 52	301. 9	5·2	210. 7	207. 32	6·0	95. 28	92. 1
June	126·2	85·5	124. 44	124. 48	39·2	300. 41	300. 49	5·7	206. 45	206. 57	3·5	33. 30	33. 46
July	143·3	93·5	125. 10	126. 31	39·4	309. 27	312. 10	11·2	188. 32	192. 36	2·9	51. 47	57. 13
August	167·1	107·1	117. 13	118. 11	42·4	327. 20	329. 16	14·2	192. 16	195. 10	7·2	24. 15	28. 8
September	131·8	74·2	111. 31	110. 18	27·2	307. 14	304. 48	23·7	187. 8	183. 29	8·6	46. 34	41. 42
October	113·8	67·2	90. 2	86. 33	32·7	295. 52	288. 55	18·1	170. 20	159. 54	6·9	18. 35	4. 40
November	73·5	46·1	67. 0	63. 18	26·9	288. 36	281. 13	10·5	167. 20	156. 15	8·9	47. 31	32. 45
December	47·3	26·7	40. 51	39. 47	23·5	281. 52	279. 43	7·9	169. 22	166. 9	9·6	20. 31	16. 13
For the Year	100·7	57·9	106. 31	106. 31	29·4	298. 58	298. 58	12·3	175. 18	175. 18	6·1	28. 26	28. 26
	VERTICAL FORCE.												
January	15·2	15·4	183° 19′	185° 40′	6·4	250° 6′	254° 47′	2·6	87° 39′	94° 41′	1·2	290° 23′	299° 45′
February	12·9	12·5	161. 19	164. 48	5·6	265. 18	272. 17	2·9	55. 1	65. 29	0·7	310. 55	324. 53
March	32·6	24·6	163. 24	165. 35	16·4	263. 58	268. 21	6·8	98. 48	105. 22	3·1	250. 56	259. 41
April	46·9	16·3	102. 11	102. 15	17·9	250. 43	250. 50	8·5	73. 7	73. 18	3·7	271. 10	271. 25
May	44·0	19·7	118. 7	117. 15	18·1	258. 41	256. 58	6·5	79. 47	77. 12	1·4	303. 14	299. 47
June	41·2	20·4	113. 43	113. 47	15·3	248. 15	248. 23	5·7	80. 54	81. 6	0·6	248. 12	248. 28
July	35·6	14·8	119. 39	121. 0	15·3	249. 12	251. 55	6·3	73. 41	77. 45	2·1	252. 20	257. 46
August	31·0	12·3	148. 8	149. 6	13·3	262. 8	264. 4	7·6	95. 35	98. 29	1·5	272. 47	276. 40
September	30·6	16·0	155. 57	154. 44	16·3	262. 31	260. 5	5·4	85. 11	81. 32	2·1	275. 49	270. 57
October	24·5	17·1	172. 58	169. 29	11·3	262. 37	255. 40	7·2	81. 4	70. 38	2·5	270. 0	256. 5
November	19·8	11·5	147. 24	143. 42	5·1	278. 10	270. 47	2·8	97. 56	86. 51	1·4	317. 44	302. 58
December	14·4	13·5	160. 20	159. 16	6·3	260. 37	258. 28	2·0	95. 47	92. 34	0·4	190. 53	186. 35
For the Year	27·9	14·6	144. 56	144. 56	12·2	257. 52	257. 52	5·3	83. 24	83. 24	1·6	272. 18	272. 18

TABLE XVII.—RESULTS of OBSERVATIONS of MAGNETIC DIP made in the MAGNETIC PAVILION in the YEAR 1909.

Greenwich Civil Time, 1909.	3-inch Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1909.	3-inch Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1909.	3-inch Needle.	Magnetic Dip.	Observer.
d h		° ′ ″		d h		° ′ ″		d h		° ′ ″	
Jan. 2. 12	D_1	66. 53. 13	B	May 3. 13	D_1	66. 52. 53	B	Sept. 1. 13	D_1	66. 52. 46	B
4. 12	D_2	66. 59. 4	B	6. 12	D_2	66. 53. 59	B	3. 12	D_2	66. 53. 52	B
7. 13	D_1	66. 53. 27	B	8. 13	D_1	66. 51. 31	B	6. 15	D_1	66. 53. 31	B
9. 12	D_2	66. 56. 50	B	10. 12	D_2	66. 52. 25	B	8. 13	D_2	66. 53. 9	B
11. 13	D_1	66. 53. 8	B	12. 13	D_1	66. 52. 18	B	10. 12	D_1	66. 52. 17	B
15. 13	D_2	66. 59. 24	B	14. 12	D_2	66. 55. 11	B	14. 12	D_2	66. 51. 26	B
18. 15	D_2	66. 57. 57	E	17. 13	D_2	66. 54. 41	B	16. 12	D_2	66. 49. 31	E
19. 12	D_1	66. 53. 57	E	19. 12	D_1	66. 56. 26	B	20. 12	D_1	66. 52. 43	E
22. 12	D_2	66. 55. 24	E	21. 13	D_2	66. 58. 46	B	22. 12	D_2	66. 51. 41	E
26. 12	D_1	66. 54. 56	E	24. 12	D_1	66. 52. 49	E	24. 12	D_1	66. 53. 51	E
28. 12	D_2	66. 59. 12	E	26. 14	D_2	66. 55. 34	E	27. 12	D_2	66. 51. 1	E
29. 12	D_1	66. 56. 17	E	28. 12	D_1	66. 53. 20	E	29. 12	D_1	66. 53. 53	E
Feb. 1. 15	D_1	66. 57. 17	E	June 2. 12	D_1	66. 51. 42	E	Oct. 1. 12	D_1	66. 55. 10	E
3. 12	D_2	66. 53. 15	E	4. 12	D_2	66. 51. 58	E	4. 12	D_2	66. 52. 44	E
5. 12	D_1	66. 54. 53	E	7. 12	D_1	66. 54. 5	E	7. 12	D_1	66. 54. 32	E
8. 12	D_2	66. 55. 15	E	9. 12	D_2	66. 56. 9	E	11. 12	D_2	66. 56. 3	E
10. 12	D_1	66. 56. 37	E	11. 12	D_1	66. 55. 14	E	14. 12	D_1	66. 57. 7	E
12. 12	D_2	66. 52. 20	E	14. 12	D_2	66. 54. 12	E	16. 12	D_2	66. 53. 46	E
15. 15	D_2	66. 52. 36	B	18. 12	D_2	66. 51. 55	B	18. 13	D_2	66. 55. 28	B
17. 13	D_1	66. 52. 30	B	21. 12	D_1	66. 52. 1	B	20. 12	D_1	66. 55. 44	B
20. 12	D_2	66. 52. 25	B	23. 12	D_2	66. 54. 5	B	22. 13	D_2	66. 54. 32	B
22. 13	D_1	66. 54. 23	B	26. 11	D_1	66. 54. 9	B	25. 13	D_1	66. 55. 36	B
24. 15	D_2	66. 52. 45	B	28. 12	D_2	66. 52. 54	B	29. 12	D_2	66. 55. 46	B
26. 12	D_1	66. 55. 12	B	30. 12	D_1	66. 54. 45	B	30. 13	D_1	66. 52. 30	B
Mar. 3. 12	D_1	66. 52. 34	B	July 2. 12	D_1	66. 53. 40	E	Nov. 1. 15	D_1	66. 55. 23	B
4. 12	D_2	66. 55. 25	B	5. 12	D_2	66. 50. 37	E	3. 12	D_2	66. 54. 2	B
6. 12	D_1	66. 56. 6	B	7. 12	D_1	66. 54. 18	E	5. 12	D_1	66. 52. 21	B
8. 12	D_2	66. 55. 6	B	9. 12	D_2	66. 53. 56	E	9. 12	D_2	66. 53. 57	B
10. 12	D_1	66. 51. 16	B	12. 12	D_1	66. 52. 12	E	11. 13	D_1	66. 54. 29	B
13. 12	D_2	66. 55. 41	B	14. 12	D_2	66. 54. 50	E	13. 12	D_2	66. 51. 40	B
16. 12	D_2	66. 52. 45	B	19. 12	D_2	66. 54. 17	B	17. 12	D_2	66. 51. 33	E
18. 12	D_1	66. 51. 28	B	19. 12	D_1	66. 53. 45	B	19. 12	D_1	66. 55. 28	E
22. 12	D_2	66. 52. 28	E	21. 13	D_2	66. 52. 13	B	23. 12	D_2	66. 55. 45	E
24. 12	D_1	66. 53. 2	E	23. 12	D_1	66. 55. 36	B	24. 12	D_1	66. 53. 3	E
26. 12	D_2	66. 53. 48	E	27. 12	D_2	66. 53. 30	B	26. 12	D_2	66. 52. 15	E
29. 15	D_1	66. 58. 50	E	29. 12	D_1	66. 54. 3	B	29. 12	D_1	66. 52. 52	E
Apr. 1. 12	D_1	66. 53. 5	E	Aug. 3. 12	D_1	66. 53. 42	B	Dec. 2. 12	D_1	66. 54. 36	B
5. 12	D_2	66. 52. 19	E	5. 12	D_2	66. 53. 56	B	4. 12	D_2	66. 53. 51	B
7. 12	D_1	66. 53. 23	E	6. 12	D_1	66. 52. 23	B	6. 14	D_1	66. 54. 48	B
8. 12	D_2	66. 54. 52	E	9. 12	D_2	66. 53. 54	B	9. 13	D_2	66. 52. 47	B
13. 12	D_1	66. 52. 46	E	11. 12	D_1	66. 55. 33	B	11. 13	D_1	66. 53. 29	B
15. 13	D_2	66. 55. 31	E	13. 13	D_2	66. 57. 16	B	14. 12	D_2	66. 56. 48	B
16. 12	D_2	66. 54. 16	E	16. 15	D_2	66. 49. 55	E	16. 12	D_2	66. 56. 56	E
20. 12	D_1	66. 53. 13	E	18. 12	D_1	66. 52. 38	E	20. 15	D_1	66. 52. 57	E
21. 12	D_2	66. 53. 39	E	20. 12	D_2	66. 50. 53	E	22. 15	D_2	66. 53. 9	E
23. 12	D_1	66. 52. 15	E	23. 13	D_1	66. 52. 51	E	24. 12	D_1	66. 55. 0	E
27. 12	D_2	66. 52. 0	E	25. 12	D_2	66. 50. 0	E	28. 15	D_2	66. 52. 45	E
30. 13	D_1	66. 52. 27	B	30. 12	D_1	66. 53. 4	E	30. 12	D_1	66. 56. 32	E

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

TABLE XVIII.—MONTHLY and YEARLY MEANS of MAGNETIC DIP from OBSERVATIONS made in the YEAR 1909.

Monthly Means of Magnetic Dip.

Month, 1909.	D_1, 3-inch Needle.	Number of Observations.	D_2, 3-inch Needle.	Number of Observations.
January	66° 54′ 10″	6	66° 57′ 58″	6
February	66. 55. 9	6	66. 53. 6	6
March	66. 53. 53	6	66. 54. 12	6
April	66. 52. 52	6	66. 53. 46	6
May	66. 53. 13	6	66. 55. 6	6
June	66. 53. 39	6	66. 53. 32	6
July	66. 53. 56	6	66. 53. 14	6
August	66. 53. 22	6	66. 52. 39	6
September	66. 53. 10	6	66. 51. 47	6
October	66. 55. 7	6	66. 54. 43	6
November	66. 53. 56	6	66. 53. 12	6
December	66. 54. 34	6	66. 54. 23	6
Means	66° 53′ 55″	Sum 72	66° 53′ 58″	Sum 72
Mean Annual Dip	66° 53′ 57″.			

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 1909.

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, 1909.	Distances of Centres of Magnets.	Temperature Fahrenheit.	Observed Deflexion.	Mean of the Times of Vibration of Deflecting Magnet.	Number of Vibrations.	Temperature Fahrenheit.	Observer.
d h	ft.	°	° ′ ″	s		°	
January 7. 15	1·0	49·9	9. 36. 45	5·810	100	50·1	B
	1·3		4. 21. 58	5·810	100	50·3	
January 21. 15	1·0	47·1	9. 36. 18	5·808	100	48·0	E
	1·3		4. 21. 39	5·808	100	49·1	
February 8. 15	1·0	43·4	9. 37. 8	5·807	100	44·8	E
	1·3		4. 22. 4	5·809	100	46·7	
February 19. 15	1·0	50·2	9. 36. 0	5·807	100	49·3	B
	1·3		4. 21. 43	5·809	100	51·3	
March 8. 15	1·0	53·2	9. 36. 5	5·810	100	52·8	B
	1·3		4. 21. 33	5·812	100	54·7	
March 23. 15	1·0	51·9	9. 36. 4	5·816	100	52·8	E
	1·3		4. 21. 35	5·814	100	53·9	
April 7. 13	1·0	51·5	9. 36. 18	5·812	100	52·8	E
	1·3		4. 21. 41	5·813	100	55·2	
April 23. 15	1·0	58·9	9. 34. 50	5·811	100	59·7	E
	1·3		4. 21. 4	5·811	100	61·1	
May 6. 15	1·0	64·1	9. 34. 25	5·814	100	64·1	B
	1·3		4 20. 53	5·812	100	64·9	
May 24. 16	1·0	73·8	9. 33. 38	5·819	100	78·5	B
	1·3		4. 20. 28	5·819	100	74·9	
June 7. 15	1·0	59·9	9. 34. 58	5·812	100	61·4	E
	1·3		4. 21. 1	5·811	100	62·5	
June 21. 16	1·0	70·7	9. 33. 9	5·817	100	70·9	B
	1·3		4. 20. 19	5·817	100	72·3	
July 7. 15	1·0	60·3	9. 34. 44	5·812	100	60·8	E
	1·3		4. 20. 53	5·811	100	61·2	
July 23. 15	1·0	69·5	9. 32. 15	5·816	100	70·0	B
	1·3		4. 19. 58	5·812	100	69·6	
August 6. 15	1·0	75·4	9. 33. 5	5·819	100	76·0	B
	1·3		4. 20. 15	5·817	100	76·0	
August 25. 15	1·0	64·6	9. 34. 33	5·817	100	64·7	E
	1·3		4. 20. 50	5·820	100	66·0	
September 7. 14	1·0	60·4	9. 35. 10	5·816	100	60·0	B
	1·3		4. 21. 18	5·814	100	60·0	
September 22. 15	1·0	64·2	9. 34. 39	5·821	100	65·3	E
	1·3		4. 20. 59	5·822	100	66·7	
October 7. 15	1·0	58·6	9. 35. 51	5·821	100	59·2	E
	1·3		4. 21. 41	5·820	100	60·2	
October 22. 15	1·0	56·1	9. 36. 28	5·819	100	55·8	B
	1·3		4. 21. 40	5·820	100	55·8	
November 9. 15	1·0	46·6	9. 36. 28	5·810	100	46·6	B
	1·3		4. 21. 43	5·811	100	47·2	
November 22. 12	1·0	40·5	9. 37. 9	5·807	100	42·1	E
	1·3		4. 22. 8	5·808	100	42·9	
December 8. 13	1·0	40·5	9. 37. 8	5·810	100	40·1	B
	1·3		4. 22. 0	5·807	100	41·1	
December 21. 12	1·0	36·5	9. 37. 25	5·809	100	37·7	E
	1·3		4. 22. 5	5·808	100	38·5	

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

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

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

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

Greenwich Civil Time, 1909.	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. $\frac{m}{X}$.	Corrected Time of Vibration of Deflecting Magnet.	Log. $m X$.	Value of m.	Value of Horizontal Force X.	Value of Horizontal Force.	
										As observed.	Reduced to Mean of Month.
d h						s					
Jan. 7. 15	0·08369	0·08382	−0·00378		8·92410	5·8140	0·13190	0·3373	4·0170	1·8522	1·8523
Jan. 21. 15	0·08358	0·08368	−0·00276		8·92346	5·8128	0·13206	0·3371	4·0207	1·8539	1·8523
Feb. 8. 15	0·08365	0·08376	−0·00316		8·92384	5·8145	0·13178	0·3371	4·0176	1·8525	1·8530
Feb. 19. 15	0·08359	0·08374	−0·00454		8·92363	5·8131	0·13204	0·3372	4·0198	1·8535	1·8528
Mar. 8. 15	0·08364	0·08373	−0·00259		8·92375	5·8141	0·13191	0·3372	4·0186	1·8529	1·8532
Mar. 23. 15	0·08362	0·08373	−0·00316		8·92368	5·8173	0·13142	0·3369	4·0167	1·8520	1·8508
Apr. 7. 13	0·08365	0·08375	−0·00310		8·92381	5·8158	0·13164	0·3371	4·0171	1·8522	1·8540
Apr. 23. 15	0·08354	0·08366	−0·00344		8·92330	5·8121	0·13223	0·3371	4·0222	1·8546	1·8527
May 6. 15	0·08356	0·08368	−0·00344		8·92339	5·8143	0·13194	0·3370	4·0205	1·8538	1·8526
May 24. 16	0·08359	0·08369	−0·00282		8·92350	5·8149	0·13190	0·3371	4·0198	1·8534	1·8520
June 7. 15	0·08358	0·08366	−0·00243		8·92340	5·8134	0·13205	0·3371	4·0209	1·8540	1·8551
June 21. 16	0·08347	0·08359	−0·00355		8·92295	5·8143	0·13198	0·3369	4·0227	1·8548	1·8534
July 7. 15	0·08355	0·08362	−0·00209	−0·00317	8·92321	5·8131	0·13210	0·3370	4·0220	1·8545	1·8545
July 23. 15	0·08333	0·08346	−0·00395		8·92223	5·8125	0·13224	0·3367	4·0273	1·8569	1·8559
Aug. 6. 15	0·08353	0·08364	−0·00321		8·92324	5·8130	0·13220	0·3371	4·0224	1·8546	1·8542
Aug. 25. 15	0·08358	0·08367	−0·00254		8·92344	5·8177	0·13143	0·3369	4·0179	1·8526	1·8506
Sept. 7. 14	0·08361	0·08375	−0·00412		8·92373	5·8175	0·13144	0·3370	4·0166	1·8520	1·8508
Sept. 22. 15	0·08359	0·08371	−0·00344		8·92356	5·8193	0·13119	0·3368	4·0162	1·8518	1·8524
Oct. 7. 15	0·08369	0·08386	−0·00496		8·92419	5·8216	0·13082	0·3369	4·0116	1·8497	1·8491
Oct. 22. 15	0·08374	0·08381	−0·00220		8·92420	5·8220	0·13074	0·3369	4·0112	1·8495	1·8495
Nov. 9. 15	0·08360	0·08369	−0·00259		8·92354	5·8171	0·13142	0·3369	4·0174	1·8523	1·8511
Nov. 22. 12	0·08362	0·08374	−0·00361		8·92371	5·8168	0·13142	0·3370	4·0166	1·8520	1·8554
Dec. 8. 13	0·08361	0·08370	−0·00259		8·92360	5·8184	0·13119	0·3368	4·0161	1·8517	1·8521
Dec. 21. 12	0·08360	0·08367	−0·00209		8·92348	5·8182	0·13119	0·3368	4·0166	1·8520	1·8526
Means	...	...	...	...	...	...	...	...	4·0186	1·8529	1·8526

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 6, 9, 17, 22, 23, February 5, 11, 15, 18, 19, March 7, 11, 12, 16, 24, April 7, 8, 15, 21, 22, May 3, 5, 9, 24, 29, June 4, 8, 12, 19, 27, July 6, 7, 10, 20, 25, August 5, 6, 16, 17, 21, September 12, 13, 17, 18, 19, October 5, 13, 16, 17, 28, November 4, 5, 12, 25, 28, December 5, 7, 8, 11, 28.

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 1·8526 and 4·3432 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.*)

1909.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
	′	′	′	′	′	′	′	′	′	′	′	′	′
Midnight.	0·9	0·7	1·3	4·4	4·3	3·5	2·9	3·3	1·8	2·4	0·6	0·6	2·06
1h	1·2	1·1	1·6	4·8	4·3	3·7	3·0	3·2	1·9	2·5	1·1	1·0	2·28
2	1·6	0·9	1·8	4·7	4·0	3·6	3·3	3·2	2·0	2·8	1·1	1·1	2·34
3	1·6	0·7	1·4	4·8	4·2	3·4	3·4	3·1	2·0	3·0	1·3	1·2	2·34
4	1·4	0·6	1·3	4·5	3·6	2·6	2·8	2·8	2·0	2·7	1·1	1·0	2·03
5	1·3	0·2	1·6	4·2	2·8	1·1	1·7	1·4	1·8	2·4	1·0	0·9	1·53
6	1·0	0·1	1·1	3·3	1·4	0·4	1·0	0·6	1·6	1·8	0·6	0·7	0·96
7	0·7	0·2	1·0	1·7	0·3	0·0	0·4	0·0	0·9	0·9	0·3	0·6	0·41
8	0·3	0·5	0·0	0·3	0·0	0·2	0·0	0·2	0·0	0·0	0·2	0·4	0·00
9	0·0	1·0	0·1	0·0	0·6	1·7	0·7	1·6	0·0	0·2	0·0	0·0	0·32
10	1·0	1·8	1·6	2·1	2·5	3·1	1·5	4·3	1·4	1·9	1·2	0·6	1·75
11	2·3	2·4	3·6	5·5	5·9	5·4	4·2	6·8	4·1	5·2	2·9	2·2	4·04
Noon.	3·6	2·5	6·2	9·0	8·2	7·8	6·9	9·2	6·8	7·3	4·0	3·1	6·05
13h	4·3	3·0	7·2	11·5	9·0	8·6	8·7	9·8	7·6	7·9	4·5	3·7	6·98
14	3·9	2·6	7·2	11·6	8·9	8·6	9·2	9·2	7·3	7·1	4·0	3·2	6·73
15	3·0	1·7	6·1	10·0	7·8	7·9	8·6	7·9	6·5	5·7	3·4	2·4	5·75
16	2·5	1·3	4·5	8·1	7·0	7·4	7·4	6·0	5·1	4·5	2·7	1·8	4·69
17	2·1	1·4	3·2	6·5	6·2	6·1	6·3	4·8	4·0	3·8	2·0	1·3	3·81
18	1·8	1·2	2·9	5·5	5·3	5·4	5·2	3·9	3·1	3·1	1·2	1·2	3·15
19	1·5	1·2	2·5	5·3	5·2	5·0	4·5	3·9	2·6	2·5	0·8	0·9	2·82
20	1·6	0·7	1·8	5·1	5·0	5·0	4·3	3·9	1·9	2·2	0·9	0·7	2·59
21	0·8	0·4	1·6	5·2	4·8	4·3	4·1	3·9	2·0	2·1	0·6	0·7	2·37
22	0·5	0·0	1·2	4·9	4·8	4·3	3·8	3·8	2·0	2·3	0·5	0·5	2·21
23	0·4	0·3	0·5	4·8	4·3	4·1	3·3	3·3	1·6	2·4	0·8	0·3	2·00
24	0·7	0·7	0·1	4·7	4·3	4·1	3·3	3·4	1·5	2·5	1·1	0·4	2·06
Means 0h–23h	1·64	1·10	2·55	5·33	4·60	4·30	4·05	4·17	2·92	3·20	1·53	1·25	2·88
Means 1h–24h	1·63	1·10	2·50	5·34	4·60	4·33	4·07	4·17	2·90	3·20	1·55	1·25	2·88

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.*)

1909.

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.	59	109	29	54	126	233	169	313	151	280	168	311	158	293	241	446	176	326	152	282	85	157	35	65	122·4	226·7
1h	55	102	39	72	120	222	161	298	143	265	186	345	150	278	241	446	174	322	148	274	84	156	41	76	121·8	225·6
2	62	115	39	72	122	226	158	293	139	258	176	326	154	285	241	446	172	319	144	267	82	152	51	94	121·6	225·4
3	63	117	37	69	123	228	159	295	135	250	174	322	151	280	224	415	167	309	156	289	85	157	59	109	121·1	224·3
4	69	123	38	70	123	228	155	287	130	241	166	308	159	295	205	380	163	302	154	285	91	169	59	109	119·3	221·1
5	77	143	36	67	129	239	148	274	120	222	157	291	157	291	191	354	161	298	153	283	97	180	69	128	117·9	218·4
6	85	157	39	72	132	245	157	291	114	211	135	250	136	252	159	295	147	272	157	291	98	182	74	137	112·7	208·8
7	80	148	37	69	116	215	156	289	86	159	95	176	116	215	106	196	132	245	137	254	82	152	66	122	94·1	174·3
8	52	96	25	46	99	183	132	245	56	104	42	78	86	159	54	100	82	152	79	146	64	119	58	107	62·4	115·5
9	24	44	11	20	35	65	67	124	18	33	0	0	48	89	22	41	34	63	22	41	34	63	38	70	22·7	42·0
10	0	0	11	20	25	46	7	13	0	0	14	26	4	7	0	0	0	0	0	0	14	26	6	11	0·0	0·0
11	1	2	0	0	0	0	0	0	7	13	47	87	0	0	22	41	4	7	8	15	0	0	0	0	0·7	1·4
Noon.	15	28	12	22	6	11	39	72	34	63	73	135	30	56	78	145	63	117	30	56	11	20	2	4	26·1	48·3
13h	33	61	19	35	17	31	60	111	54	100	114	211	44	82	132	245	111	206	62	115	24	44	31	57	51·7	95·8
14	55	102	25	46	47	87	110	204	78	145	144	267	74	137	160	296	116	215	96	178	39	72	43	80	75·5	140·0
15	55	102	15	28	69	128	138	256	102	189	180	333	132	245	186	345	138	256	118	219	45	83	54	100	96·0	177·9
16	57	106	6	11	90	167	181	335	142	263	182	337	168	311	213	395	154	285	116	215	60	111	64	119	112·7	208·9
17	71	132	6	11	110	204	204	378	168	311	200	371	200	371	232	430	174	322	114	211	74	137	78	145	129·2	239·5
18	90	167	27	50	122	226	212	393	198	367	224	415	225	417	242	448	192	356	115	213	83	154	78	145	144·0	266·8
19	88	163	37	69	138	256	205	380	203	376	255	472	231	428	250	463	204	378	125	232	101	187	71	132	152·3	282·3
20	92	170	33	61	130	241	203	376	205	380	255	472	246	456	248	459	192	356	127	235	90	167	63	117	150·3	278·4
21	82	152	26	48	126	233	204	378	185	343	227	421	215	398	248	459	185	343	135	250	84	156	59	109	141·3	261·8
22	86	159	26	48	131	243	204	378	183	339	221	409	214	396	234	434	183	339	139	258	90	167	50	93	140·1	259·5
23	86	159	20	37	126	233	205	380	173	320	211	391	206	382	234	434	183	339	143	265	87	161	42	78	136·3	252·5
24	84	156	35	65	130	241	205	380	167	309	201	372	202	374	249	461	185	343	151	280	91	169	52	96	139·3	258·1
Means. 0h–23h	59·9	110·9	24·7	45·7	94·2	174·6	143·1	265·1	117·7	218·0	151·9	281·4	137·7	255·1	173·5	321·4	137·8	255·3	109·6	203·1	66·8	123·8	49·6	92·0	98·8	183·1
1h–24h	60·9	112·9	25·0	46·2	94·4	174·9	144·6	267·9	118·3	219·2	153·3	284·0	139·5	258·5	173·8	322·0	138·2	256·0	109·5	203·0	67·1	124·3	50·3	93·2	99·5	184·4

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.)

1909.

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	113	24	104	41	178	66	287	53	230	64	278	38	165	40	174	40	174	28	122	24	104	30	130	37·7	163·7
1h	22	96	18	78	38	165	70	304	49	213	52	226	36	156	34	148	36	156	24	104	20	87	22	96	33·3	144·5
2	24	104	12	52	38	165	66	287	45	195	48	208	32	139	34	148	32	139	22	96	22	96	20	87	31·1	135·1
3	20	87	10	43	42	182	68	295	47	204	50	217	36	156	38	165	34	148	22	96	16	69	14	61	31·3	135·7
4	21	91	13	56	40	174	66	287	49	213	54	235	40	174	42	182	30	130	18	78	18	78	14	61	32·0	138·7
5	21	91	11	48	44	191	65	282	53	230	60	261	46	200	50	217	32	139	18	78	18	78	10	43	33·9	146·9
6	19	83	5	22	42	182	71	308	51	222	54	235	46	200	46	200	32	139	16	69	16	69	10	43	32·2	139·8
7	21	91	7	30	40	174	73	317	53	230	54	235	42	182	52	226	40	174	20	87	16	69	10	43	33·9	146·9
8	21	91	5	22	46	200	69	300	49	213	52	226	46	200	48	208	36	156	22	96	16	69	10	43	33·2	144·1
9	17	74	3	13	28	122	59	256	29	126	40	174	37	161	38	165	32	139	14	61	16	69	4	17	24·6	106·8
10	5	22	5	22	16	69	43	187	16	69	20	87	18	78	22	96	20	87	8	35	10	43	0	0	13·5	58·4
11	0	0	0	0	8	35	19	83	2	9	10	43	10	43	10	43	2	9	0	0	2	9	2	9	3·6	15·7
Noon.	12	52	0	0	0	0	0	0	0	0	0	0	4	17	0	0	0	0	2	9	0	0	4	17	0·0	0·0
13h	8	35	2	9	12	52	2	9	8	35	12	52	0	0	8	35	2	9	12	52	9	39	6	26	5·0	21·5
14	18	78	4	17	24	104	22	96	32	139	26	113	8	35	22	96	10	43	26	113	13	56	11	48	16·2	70·3
15	14	61	14	61	30	130	39	169	42	182	46	200	28	122	40	174	18	78	44	191	17	74	17	74	27·3	118·4
16	12	52	10	43	46	200	49	213	50	217	54	235	38	165	48	208	28	122	48	208	17	74	17	74	33·0	143·0
17	18	78	12	52	48	208	59	256	58	252	64	278	44	191	56	243	32	139	42	182	25	109	20	87	38·0	165·0
18	18	78	20	87	44	191	57	248	66	287	64	278	50	217	58	252	36	156	44	191	27	117	18	78	40·0	173·8
19	14	61	20	87	45	195	53	230	62	269	64	278	42	182	52	226	34	148	44	191	25	109	20	87	37·8	164·0
20	14	61	22	96	43	187	59	256	58	252	62	269	42	182	50	217	38	165	46	200	23	100	18	78	37·8	164·0
21	22	96	30	130	43	187	59	256	52	226	62	269	40	174	44	191	38	165	44	191	27	117	16	69	38·0	164·7
22	20	87	16	69	39	169	55	239	52	226	60	261	38	165	40	174	40	174	34	148	25	109	18	78	34·6	150·3
23	14	61	18	78	41	178	57	248	47	204	58	252	40	174	42	182	36	156	30	130	25	109	18	78	33·7	146·3
24	14	61	22	96	35	152	53	230	47	204	56	243	36	156	40	174	38	165	28	122	23	100	16	69	32·2	139·8
Means 0h–23h	16·7	72·6	11·7	50·8	34·9	151·6	51·9	225·5	42·6	185·1	47·1	204·6	33·4	144·9	38·1	165·4	28·3	122·7	26·2	113·7	17·8	77·2	13·7	59·5	28·4	123·2
1h–24h	16·2	70·5	11·6	50·5	34·7	150·5	51·4	223·2	42·4	184·0	46·7	203·1	33·3	144·5	38·1	165·4	28·2	122·3	26·2	113·7	17·8	77·0	13·1	56·9	28·2	122·2

ROYAL OBSERVATORY, GREENWICH.

MAGNETIC DISTURBANCES

AND

EARTH CURRENTS.

1909.

MAGNETIC DISTURBANCES in DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE, recorded at the ROYAL OBSERVATORY, GREENWICH, in the Year 1909.

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).

1909.

January

$1^d\ 11^h$ Sharp increase in H.F. (+ ·0014): in Dec. small. 15^h Sharp decrease in H.F. (− ·0018). $16\frac{3}{4}^h$ to $17\frac{3}{4}^h$ Wave in Dec. (+ 4′). 17^h to $17\frac{1}{2}^h$ Sharp wave in H.F. (+ ·0014). 17^h to 21^h Irregular wave in V.F. (+ ·0030). $17\frac{1}{2}^h$ to $19\frac{1}{4}^h$ Flat-crested wave in H.F. (− ·0032), with superposed fluctuations. 18^h to $19\frac{3}{4}^h$ Very sharp irregular wave in Dec. (− 24′). $19\frac{3}{4}^h$ to $23\frac{3}{4}^h$ Sharp fluctuations in H.F.: in Dec. small. $23\frac{3}{4}^h$ to 24^h Very sharp wave in H.F. (+ ·0012).

$2^d\ 0\frac{1}{4}^h$ to $0\frac{1}{2}^h$ Very sharp wave in H.F. (+ ·0012), followed by sharp fluctuations until $5\frac{1}{4}^h$. $0\frac{3}{4}^h$ to $1\frac{1}{2}^h$ Wave in Dec. (− 4′), with small superposed fluctuations continuing until $5\frac{1}{4}^h$. $7\frac{1}{2}^h$ to $9\frac{3}{4}^h$ Fluctuations in Dec., H.F. and V.F. $12\frac{3}{4}^h$ to 13^h Very sharp waves in Dec. (− 4′), H.F. (+·0028), and V.F. (− ·0004). $14\frac{1}{2}^h$ to 17^h Sharp fluctuations in H.F., less marked in Dec. and V.F. 17^h to $17\frac{1}{4}^h$ Sharp wave in H.F. (+·0028), with superposed fluctuations continuing until 20^h: corresponding smaller movements in Dec. and V.F. $20\frac{3}{4}^h$ to $21\frac{1}{4}^h$ Waves in Dec. (− 3′) and H.F. (+ ·0014). $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Irregular wave in Dec. (− 6′). $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Wave in H.F. (+ ·0019), followed till $22\frac{1}{2}^h$ by a decrease (− ·0011). $22\frac{1}{2}^h$ to 24^h Irregular double-crested wave in Dec. (− 5′). 23^h to $23\frac{1}{4}^h$ Sharp wave in H.F. (+ ·0017), with superposed fluctuations: small fluctuations in V.F. $2^d\ 23\frac{1}{2}^h$ to $3^d\ 1\frac{1}{4}^h$ Very irregular wave in H.F. (+ ·0024), with superposed fluctuations.

$3^d\ 1\frac{1}{4}^h$ to $1\frac{3}{4}^h$ Wave in Dec. (− 3′).

$3^d\ 5^h$ to $4^d\ 5^h$ See Plate I.

$4^d\ 10\frac{1}{2}^h$ to 11^h Sharp-crested wave in Dec. (+ 3′). $10\frac{3}{4}^h$ to $11\frac{1}{4}^h$ Sharp wave in H.F. (− ·0023). $13\frac{1}{4}^h$ to $14\frac{1}{2}^h$ Sharp wave in H.F. (− ·0035). $13\frac{3}{4}^h$ to 15^h Irregular double-crested wave in Dec. (− 8′), the first portion steep, the second flat-crested. 14^h to 15^h Irregular wave in V.F. (+ ·0004). $15\frac{3}{4}^h$ to $16\frac{1}{2}^h$ Double wave in H.F. (+ ·0007 to − ·0011), the first portion very steep. $21\frac{1}{2}^h$ to $23\frac{1}{4}^h$ Irregular double wave in Dec. (+ 7′ to − 4′). $21\frac{1}{2}^h$ to $22\frac{3}{4}^h$ Two successive sharp waves in H.F. (+ ·0014 and + ·0028), the latter rather flat-crested. 22^h to $23\frac{1}{4}^h$ Wave in V.F. (− ·0004). $23\frac{3}{4}^h$ to 24^h Sharp increase in Dec. (+ 4′).

$5^d\ 0\frac{3}{4}^h$ to $2\frac{1}{4}^h$ Flat-crested wave in H.F. (+ ·0012). $1\frac{3}{4}^h$ to $2\frac{1}{2}^h$ Wave in Dec. (+ 3′).

$13^d\ 9\frac{1}{2}^h$ to 10^h Short sharp fluctuations in H.F.: in Dec. smaller. 12^h to $15\frac{1}{2}^h$ Slow irregular triple-crested wave in Dec. (+ 6′). 12^h to $14\frac{3}{4}^h$ Irregular double wave in H.F. (+ ·0010 to − ·0027), followed till $15\frac{3}{4}^h$ by a wave (− ·0014). $22\frac{3}{4}^h$ to $23\frac{1}{4}^h$ Wave in Dec. (− 3′). $13^d\ 23\frac{1}{4}^h$ to $14^d\ 0\frac{3}{4}^h$ Double-crested wave in H.F. (+ ·0013). $13^d\ 23\frac{3}{4}^h$ to $14^d\ 0\frac{1}{2}^h$ Wave in Dec. (− 3′).

$14^d\ 4\frac{3}{4}^h$ to 6^h. Wave in Dec. (+ 5′). 5^h to $6\frac{1}{4}^h$ Wave in H.F. (+ ·0012). 16^h to 17^h Wave in H.F. (− ·0010): in Dec. small. 19^h to 20^h Wave in H.F. (+ ·0012): in Dec. small. 22^h to $23\frac{1}{2}^h$ Double-crested wave in Dec. (− 5′), the second portion flat-crested. 22^h to 24^h Triple-crested wave in H.F. (+ ·0014).

1909.

January $15^d\ 23^h$ to 24^h Wave in H.F. (+ ·0013), very steep at commencement: in Dec. small.

$18^d\ 17^h$ to $18\frac{1}{2}^h$ Wave in Dec. (− 3′). $20\frac{3}{4}^h$ to 23^h Irregular flat-crested wave in Dec. (− 3′).

$19^d\ 23^h$ to 24^h Wave in H.F. (+ ·0020).

$24^d\ 21\frac{3}{4}^h$ to $22\frac{1}{4}^h$ Irregular wave in Dec. (− 3′): sharp fluctuations in H.F.

$25^d\ 10^h$ to $10\frac{1}{2}^h$ Wave in H.F. (+ ·0011). 13^h to $13\frac{1}{4}^h$ Sharp wave in H.F. (+ ·0012): in Dec. small. $15\frac{1}{2}^h$ to $16\frac{1}{4}^h$ Wave in H.F. (− ·0014). $17\frac{3}{4}^h$ to $19\frac{3}{4}^h$ Double waves in Dec. (+ 3′ to − 4′), and H.F. (+ ·0011 to − ·0026). $19\frac{3}{4}^h$ to $20\frac{1}{2}^h$ Irregular sharp decrease in Dec. (− 8′), followed till 21^h by a sharp wave (+ 7′). $19\frac{3}{4}^h$ to $20\frac{1}{2}^h$ Sharp double-crested wave in H.F. (− ·0017), followed till 21^h by a sharp decrease (− ·0033). 21^h to $21\frac{3}{4}^h$ Sharp wave in H.F. (+ ·0050). 21^h to $21\frac{1}{2}^h$ Wave in V.F. (+ ·0003). $21\frac{1}{4}^h$ to $22\frac{1}{4}^h$ Sharp triple wave in Dec. (− 8′, + 4′, − 4′). $25^d\ 23^h$ to $26^d\ 0\frac{1}{4}^h$ Irregular wave in Dec. (+ 4′). $25^d\ 23^h$ to $26^d 1\frac{1}{2}^h$ Irregular triple-crested wave in H.F. (+ ·0017).

$26^d\ 19\frac{3}{4}^h$ to $20\frac{3}{4}^h$ Wave in Dec. (− 3′). $20\frac{3}{4}^h$ to 21^h Decrease in H.F. (− ·0014).

$27^d\ 1\frac{1}{2}^h$ to 2^h Wave in Dec. (+ 3′). 12^h to $14\frac{1}{4}^h$ Sharp fluctuations in Dec. 13^h to 15^h Irregular triple-crested Wave in H.F. (− ·0020). $16\frac{3}{4}^h$ to 18^h Double wave in Dec. (+ 3′ to − 4′). $16\frac{3}{4}^h$ to $17\frac{1}{2}^h$ Wave in H.F. (− ·0012), followed by small waves till 20^h. $18\frac{1}{4}^h$ to 19^h Wave in Dec. (+ 4′). 20^h to $21\frac{3}{4}^h$ Irregular wave in Dec. (− 9′), with superposed fluctuations, followed till $23\frac{1}{2}^h$ by a double wave (− 3′ to + 5′), the first portion flat-crested. $20\frac{1}{4}^h$ to 22^h Irregular wave in H.F. (+ ·0034). $22\frac{3}{4}^h$ to 23^h Sharp increase in H.F. (+ ·0016): decrease in V.F. (− ·0005).

$28^d\ 12\frac{1}{2}^h$ to $13\frac{3}{4}^h$ Flat-crested wave in H.F. (− ·0014). 13^h to $13\frac{1}{2}^h$ Wave in Dec. (− 4′). $13\frac{3}{4}^h$ to $15\frac{1}{4}^h$ Wave in Dec. (+ 3′). $18\frac{1}{2}^h$ to 19^h Sharp decrease in Dec. (− 12′). $18\frac{1}{2}^h$ to 20^h Double wave in H.F. (− ·0014 to + ·0012). $19\frac{1}{4}^h$ to $20\frac{1}{4}^h$ Irregular wave in Dec. (− 5′). $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Wave in Dec. (+ 3′). $22\frac{1}{2}^h$ to $22\frac{3}{4}^h$ Increase in Dec. (+ 5′). $28^d\ 22\frac{3}{4}^h$ to $29^d\ 0\frac{1}{4}^h$ Double wave in Dec. (− 3′ to + 4′), the first portion flat-crested.

$29^d\ 1^h$ to 2^h Flat-crested wave in Dec. (+ 3′). $8\frac{3}{4}^h$ to $9\frac{1}{2}^h$ Flat-crested wave in H.F. (− ·0010).

$29^d\ 14^h$ to $31^d\ 14^h$ See Plate I.

$31^d\ 14^h$ to 17^h Small sharp fluctuations in H.F. 16^h to 17^h Wave in Dec. (− 5′), with sharp superposed fluctuations. 17^h to $17\frac{3}{4}^h$ Increase in H.F. (+ ·0017). 19^h to $19\frac{3}{4}^h$ Wave in Dec. (− 4′), with sharp superposed fluctuations. $19\frac{3}{4}^h$ to 20^h Sharp decrease in Dec. (− 7′), continued till 21^h by a sharp wave (− 10′). 20^h to $21\frac{1}{2}^h$ Wave in H.F. (+ ·0054), steep at commencement, continued till 22^h by a decrease (− ·0012). 21^h to 22^h Wave in Dec. (− 5′), followed till $22\frac{1}{4}^h$ by a sharp increase (+ 5′).

February $1^d\ 0^h$ to $1\frac{1}{4}^h$ Irregular double-crested wave in Dec. (+ 7′). $0\frac{1}{4}^h$ to 1^h Double-crested wave in H.F. (+ ·0016). $0\frac{1}{4}^h$ to $0\frac{1}{2}^h$ decrease in V.F. (− ·0003).

$2^d\ 1\frac{1}{4}^h$ to $2\frac{1}{2}^h$ Steep triple-crested wave in H.F. (+ ·0034). $1\frac{1}{2}^h$ to $2\frac{1}{4}^h$ Decrease in V.F. (− ·0006). 2^h to $2\frac{3}{4}^h$ Sharp decrease in Dec. (− 11′), followed till $3\frac{3}{4}^h$ by a double-crested wave (+ 4′). 4^h to 5^h Sharp waves in Dec. (+ 10′) and H.F. (+ ·0018). 4^h to 6^h Wave in V.F. (− ·0007). $6\frac{1}{2}^h$ to $7\frac{1}{2}^h$ Sharp wave in H.F. (+ ·0028), followed by smaller ones with superposed fluctuations till 11^h. $6\frac{3}{4}^h$ to $7\frac{3}{4}^h$ Wave in Dec. (+ 7′). $8\frac{1}{4}^h$ to $8\frac{3}{4}^h$ Wave in Dec. (− 3′). $10\frac{1}{4}^h$ to $11\frac{1}{4}^h$ Wave in Dec. (− 4′). $13\frac{3}{4}^h$ to $14\frac{1}{4}^h$ Double-crested waves in Dec. (+ 4′) and H.F. (+ ·0018), each with superposed fluctuations: similar small movements in V.F. $15\frac{1}{2}^h$ Sudden decrease in H.F. (− ·0010). $15\frac{3}{4}^h$ to $16\frac{1}{4}^h$ Wave in Dec. (− 3′). $17\frac{1}{2}^h$ to $18\frac{1}{4}^h$ Flat-crested wave in H.F. (− ·0014). 18^h to $18\frac{1}{4}^h$ Sharp wave in Dec. (− 5′). $18\frac{1}{4}^h$ to $19\frac{3}{4}^h$ Irregular double-crested wave in H.F. (− ·0026). $18\frac{1}{2}^h$ to $19\frac{1}{4}^h$ Wave in Dec. (− 5′), immediately followed till $20\frac{3}{4}^h$ by a triple-crested wave (− 12′), again followed till 21^h by a sharp decrease (− 5′). $19\frac{3}{4}^h$ to $20\frac{1}{4}^h$ Decrease in H.F. (−·0020), with superposed fluctuations. $20\frac{3}{4}^h$ to $22\frac{1}{2}^h$ Triple wave in H.F. (+ ·0015, − ·0014, + ·0030), the second portion flat-crested. $21\frac{3}{4}^h$ to $22\frac{3}{4}^h$ Sharp-crested wave in Dec. (+ 13′). $22\frac{1}{4}^h$ to $22\frac{1}{2}^h$ decrease in V.F. (− ·0005). 23^h Sudden decrease in H.F. (− ·0015). 23^h to $23\frac{1}{2}^h$ Decrease in Dec. (−4′).

$3^d\ 1\frac{1}{4}^h$ to $1\frac{1}{2}^h$ Sharp decrease in Dec. (− 6′). $4\frac{1}{2}^h$ to $5\frac{3}{4}^h$ Wave in H.F. (− ·0010). $19\frac{3}{4}^h$ to 21^h Double-crested wave in Dec. (− 3′): wave in H.F. (+ ·0013).

$6^d\ 1^h$ Very sharp increases in Dec. (+ 3′) and H.F. (+ ·0020): small sharp wave in V.F. 1^h to $1\frac{1}{2}^h$ Increase in Dec. (+ 7′), followed till $2\frac{3}{4}^h$ by a decrease (− 15′). $1\frac{1}{2}^h$ to 3^h Slow decrease in H.F. (− ·0020). $1\frac{1}{2}^h$ to 2^h Decrease in V.F. (− ·0005). 12^h to 14^h Shallow wave in H.F. (− ·0010). $13\frac{1}{4}^h$ to $13\frac{1}{2}^h$ Decrease in Dec. (− 3′). 17^h to 19^h Double wave in H.F. (− ·0018 to + ·0028), the middle portion very steep: shallow wave in V.F. (+ ·0004). $17\frac{3}{4}^h$ to $19\frac{1}{4}^h$ Steep irregular wave in Dec. (− 20′). $20\frac{1}{2}^h$ to $21\frac{1}{4}^h$ Wave in Dec. (− 3′), immediately followed till 22^h by a very sharp wave (− 16′). 21^h to 22^h Double wave in H.F (− ·0010 to + ·0025), the second portion very steep: small sharp wave in V.F.

1909.

February 7^d $21\frac{3}{4}^h$ to 8^d 1^h Very irregular triple wave in Dec. (+ 4′, − 7′, + 6′), with superposed small waves. 7^d $23\frac{1}{4}^h$ to 8^d $1\frac{1}{4}^h$ Two successive irregular waves in H.F. (− ·0014 and − ·0010).

8^d $20\frac{3}{4}^h$ to $21\frac{3}{4}^h$ Waves in Dec. (− 4′) and H.F. (+ ·0012).

9^d $0\frac{3}{4}^h$ to 2^h Waves in Dec. (− 3′) and H.F. (+ ·0013).

10^d $0\frac{1}{2}^h$ to $1\frac{3}{4}^h$ Irregular wave in H.F. (+ ·0027). $1\frac{1}{4}^h$ to $2\frac{1}{2}^h$ Wave in Dec. (− 5′): in V.F. small. 3^h to 4^h Wave in Dec. (− 4′).

13^d 19^h to 20^h Wave in Dec. (− 3′).

16^d 20^h to 21^h Wave in Dec. (− 5′).

20^d $21\frac{3}{4}^h$ to $22\frac{3}{4}^h$ Wave in Dec. (− 4′).

21^d $18\frac{1}{4}^h$ to 20^h Wave in Dec. (− 4′): two successive waves in H.F. (− ·0010 and − ·0011). 22^h Sudden decrease in H.F. (− ·0016). 21^d $23\frac{3}{4}^h$ to 22^d $1\frac{1}{4}^h$ Irregular double wave in Dec. (− 4′ to + 6′). 21^d $23\frac{3}{4}^h$ to 22^d 1^h Wave in H.F. (− ·0025).

22^d $0\frac{1}{2}^h$ to $1\frac{1}{4}^h$ Decrease in V.F. (− ·0005). $7\frac{1}{2}^h$ to $12\frac{1}{2}^h$ Fluctuations in Dec. and H.F. $12\frac{1}{2}^h$ to $12\frac{3}{4}^h$ Sharp waves in Dec. (+ 3′) and H F. (+ ·0010), fluctuations still continuing. 15^h to $15\frac{1}{2}^h$ Wave in H.F. (− ·0012). $16\frac{1}{2}^h$ to $16\frac{3}{4}^h$ Decrease in Dec. (− 4′). $18\frac{1}{4}^h$ to 19^h Double-crested wave in Dec. (− 7′). $18\frac{1}{2}^h$ to $19\frac{1}{4}^h$ Double-crested wave in H.F. (+ ·0023). 21^h to 22^h Irregular wave in Dec. (− 6′). $21\frac{1}{4}^h$ to 23^h Truncated wave in H.F. (+ ·0036).

23^d $5\frac{3}{4}^h$ to $6\frac{3}{4}^h$ Wave in Dec. (− 3′), with superposed fluctuations: fluctuations also in H.F. $8\frac{3}{4}^h$ to $9\frac{3}{4}^h$ Wave in Dec. (− 3′). 11^h Very sharp wave in H.F. (− ·0012): in Dec. small. 12^h to $12\frac{3}{4}^h$ Wave in Dec. (+ 3′). $12\frac{1}{2}^h$ to 14^h Wave in H.F. (− ·0014). $15\frac{1}{4}^h$ to $16\frac{1}{2}^h$ Wave in Dec. (− 7′), steep at commencement. $15\frac{1}{4}^h$ to 16^h Sharp wave in H.F. (− ·0023), followed by sharp fluctuations till $17\frac{1}{2}^h$. $17\frac{3}{4}^h$ to $19\frac{1}{2}^h$ Sharp wave in Dec. (− 14′). 18^h to 20^h Irregular double wave in H.F. (− ·0010 to + ·0022). $20\frac{1}{4}^h$ to $21\frac{1}{2}^h$ Wave in Dec. (− 6′). $20\frac{1}{2}^h$ to 22^h Wave in H.F. (+ ·0022).

24^d $8\frac{1}{2}^h$ to 10^h Wave in H.F. (− ·0016). 16^h Sharp decrease in Dec. (− 6′): small wave in H.F. $18\frac{1}{4}^h$ to $19\frac{1}{2}^h$ Two successive sharp waves in Dec. (− 4′ and − 4′). $18\frac{1}{2}^h$ to 20^h Irregular double-crested wave in H.F. (+ ·0028), the first portion steep. $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Wave in H.F. (+ ·0011). $22\frac{1}{4}^h$ to $23\frac{1}{4}^h$ Wave in Dec. (− 4′).

26^d 19^h to 20^h Flat-crested wave in H.F. (− ·0011). $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Steep wave in Dec. (− 8′). $21\frac{1}{2}^h$ to 22^h Very sharp wave in H.F. (− ·0012). $22\frac{1}{4}^h$ to $22\frac{1}{2}^h$ Sharp wave in H.F. (+ ·0008), continued by decrease (− ·0012).

27^d 5^h to 6^h Wave in Dec. (+ 3′): in H.F. small. 19^h to $20\frac{1}{4}^h$ Wave in Dec. (− 3′). $21\frac{1}{2}^h$ to $23\frac{1}{4}^h$ Flat-crested wave in H.F. (− ·0010).

March 2^d $16\frac{3}{4}^h$ to 18^h Wave in H.F. (− ·0010). 19^h to $20\frac{1}{4}^h$ Wave in Dec. (− 5′). 19^h to $19\frac{3}{4}^h$ Wave in H.F. (− ·0011).

3^d $16\frac{3}{4}^h$ to $18\frac{3}{4}^h$ Triple-crested wave in H.F. (− ·0018). 17^h to $18\frac{3}{4}^h$ Double-crested wave in Dec. (− 7′).

4^d $0\frac{1}{2}^h$ to $2\frac{3}{4}^h$ Irregular wave in Dec. (+ 9′). 1^h to 3^h Irregular wave in H.F. (+ ·0015): wave in V.F. (− ·0004). $2\frac{3}{4}^h$ to 4^h Wave in Dec. (+ 4′). $5\frac{3}{4}^h$ to $6\frac{1}{2}^h$ Decrease in H.F. (− ·0017).

5^d $11\frac{1}{2}^h$ to $11\frac{3}{4}^h$ Very sharp wave in H.F. (+ ·0011). $17\frac{1}{4}^h$ to $17\frac{1}{2}^h$ Sharp decrease in H.F. (− ·0015). $17\frac{1}{2}^h$ to $18\frac{3}{4}^h$ Double wave in H.F. (+ ·0011 to − 0010). $18\frac{1}{4}^h$ to 21^h Irregular double-crested wave in Dec. (− 8′), the first portion steep. $18\frac{3}{4}^h$ to $19\frac{1}{2}^h$ Sharp wave in H.F. (− ·0013). 22^h to 23^h Sharp wave in Dec. (− 8′), followed till 24^h by an irregular wave (+ 4′). $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Irregular wave in H.F. (+ ·0020).

6^d 1^h to $2\frac{3}{4}^h$ Steep wave in Dec. (+ 13′). $1\frac{1}{2}^h$ to 3^h Wave in H.F. (+ ·0025), steep at commencement: wave in V.F. (− ·0004). 3^h to $4\frac{1}{4}^h$ Increase in Dec. (+ 12′), continued till 5^h by a wave (+ 5′): small wave in V.F. $3\frac{3}{4}^h$ to $4\frac{1}{2}^h$ Decrease in H.F. (− ·0015), followed till $5\frac{1}{2}^h$ by a wave (+ ·0022). 6^h to $8\frac{1}{4}^h$ Irregular double wave in H.F. (− ·0020 to + ·0013). 7^h to 8^h Decrease in Dec. (− 9′).

8^d $22\frac{3}{4}$ to 24^h Wave in Dec. (− 5′), steep at commencement.

12^d $23\frac{1}{4}^h$ to 13^d $0\frac{3}{4}^h$ Wave in Dec. (− 3′). $4\frac{1}{2}^h$ to $5\frac{1}{2}^h$ Wave in Dec. (+ 5′).

14^d 19^h to $20\frac{3}{4}^h$ Two successive waves in Dec. (− 3′ and − 4′). 22^h to $23\frac{1}{4}^h$ Double-crested wave in Dec. (+ 4′). $22\frac{1}{2}^h$ to $23\frac{1}{4}^h$ Wave in H.F. (+ ·0012).

18^d $13\frac{3}{4}^h$ to 15^h Irregular wave in H.F. (− ·0018): in Dec. small. 15^h to 19^h Wave in V.F. (+ ·0009). $15\frac{3}{4}^h$ to 17^h Irregular wave in Dec. (− 7′), followed till $17\frac{1}{4}^h$ by sharp decrease (− 12′). $16\frac{1}{2}^h$ to $17\frac{3}{4}^h$ Sharp wave in H.F. (− ·0037). $19\frac{1}{4}^h$ to $19\frac{1}{2}^h$ Small sharp wave in H.F. (− ·0010).

1909.

March $19^d\ 5\frac{1}{2}^h$ to $6\frac{1}{2}^h$ Wave in Dec. (+ 4′). 12^h to $13\frac{1}{2}^h$ Two successive waves in H.F. (− ·0012 and − ·0014). $12\frac{1}{2}^h$ to 13^h Wave in Dec. (− 3′). 13^h to 14^h Flat-crested wave in Dec. (− 3′), followed till $14\frac{3}{4}^h$ by a double-crested wave (− 4′). 13^h to 14^h Increase in V.F. (+ ·0009). $13\frac{3}{4}^h$ to $14\frac{3}{4}^h$ Double wave in H.F. (+ ·0014 to − ·0016) with strong superposed fluctuations. $14\frac{1}{4}^h$ to $15\frac{1}{2}^h$ Sharp irregular increase in V.F. (+ ·0025), followed till 17^h by a sharp irregular double-crested wave (+ ·0028). $14\frac{3}{4}^h$ to $15\frac{1}{2}^h$ Very sharp triple-crested wave in H.F. (+ ·0016). 15^h to 16^h Very sharp double wave in Dec. (+ 6′ to − 5′), the first portion triple-crested. $15\frac{1}{2}^h$ to 17^h Irregular double wave in H.F. (+ ·0020 to − ·0024), with sharp waves (+ ·0017 and + ·0014) superposed on the first movement. 16^h to $16\frac{1}{2}^h$ Sharp decrease in Dec. (− 20′). $16\frac{3}{4}^h$ to $19\frac{1}{2}^h$ Irregular double wave in Dec. (+ 9′ to − 12′), the second portion triple-crested. 17^h to $17\frac{3}{4}^h$ Decrease in V.F. (− ·0009). $17\frac{3}{4}^h$ to $19\frac{3}{4}^h$ Three successive waves in H.F. (− ·0016, − ·0018, − ·0020), the last double-crested. $18\frac{1}{2}^h$ to 19^h Decrease in V.F. (− ·0009). $20\frac{1}{2}^h$ to 22^h Triple-crested wave in H.F. (− ·0030) continued till $22\frac{3}{4}^h$ by a very sharp wave (+ ·0064) with superposed fluctuations on the first portion, followed immediately until 24^h by a double wave (+ ·0026 to − ·0019), the first portion very steep, the second double-crested. 21^h to $22\frac{3}{4}^h$ Steep irregular quadruple-crested wave in Dec. (− 19′), immediately followed till 24^h by three successive waves (− 11′, − 4′, − 5′), the first two very steep. $21\frac{3}{4}^h$ to $22\frac{1}{4}^h$ Decrease in V.F. (− ·0010). $22\frac{1}{2}^h$ to 24^h Double-crested wave in V.F. (− ·0007), steep at commencement.

$21^d\ 6\frac{3}{4}^h$ to $8\frac{1}{4}^h$ Wave in Dec. (+ 5′). $13\frac{3}{4}^h$ to $15\frac{3}{4}^h$ Irregulur triple-crested wave in H.F. (− ·0012). $14\frac{1}{2}^h$ to 16^h Irregular wave in Dec. (− 4′). $18\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Two successive waves in H.F. (− ·0014 and − ·0015), followed till 22^h by a double wave (− ·0028 to + ·0016), the intermediate portion steep. $21\frac{3}{4}^h$ to $22\frac{3}{4}^h$ Sharp decrease in Dec. (− 7′), continued by a sharp wave (− 12′). $21^d\ 22^h$ to $22^d\ 0\frac{3}{4}^h$ Double wave in H.F. (+ ·0010 to − ·0021), the second portion triple-crested. $21^d\ 23\frac{3}{4}^h$ to $22^d\ 0\frac{1}{4}^h$ Sharp increase in Dec. (+ 9′).

$22^d\ 1^h$ to $1\frac{1}{4}^h$ Sharp increase in Dec. (+ 7′). 12^h to $13\frac{1}{4}^h$ Wave in H.F. (− ·0016). $12\frac{1}{4}^h$ to $13\frac{1}{4}^h$ Flat-crested wave in Dec. (− 3′). $14\frac{3}{4}^h$ to $15\frac{3}{4}^h$ Triple-crested wave in H.F. (− ·0014). $17\frac{3}{4}^h$ to 19^h Double wave in H.F. (− ·0012 to + ·0014), followed till $19\frac{1}{2}^h$ by a wave (+ ·0013). 18^h to $19\frac{1}{2}^h$ Two successive waves in Dec. (− 5′ and − 6′). $20\frac{3}{4}^h$ to $21\frac{1}{4}^h$ Sharp wave in Dec. (− 5′). $20\frac{3}{4}^h$ Sudden increase in H.F. (+ ·0010). $22^d\ 23^h$ to $23^d\ 1\frac{1}{2}^h$ Irregular waves in Dec. (+ 8′) and H.F. (+ ·0026), the latter double-crested: small wave in V.F.

$23^d\ 19\frac{1}{4}^h$ to 20^h Wave in Dec. (− 3′): in H.F. small. $21\frac{3}{4}^h$ to $22\frac{1}{4}^h$ Wave in Dec. (+ 4′): in H.F. small.

$25^d\ 14\frac{3}{4}^h$ to $15\frac{1}{4}^h$ Waves in Dec. (+ 3′) and H.F. (+ ·0015), very steep at commencement. 21^h to $22\frac{1}{4}^h$ Wave in Dec. (− 8′). 21^h to 22^h Double-crested wave in H.F. (− ·0012), followed till 24^h by an irregular double-crested wave (− ·0025).

$26^d\ 0^h$ to $2\frac{1}{4}^h$ Two successive waves in Dec. (− 4′ and − 5′). 1^h to $1\frac{3}{4}^h$ Wave in H.F. (+ ·0010): in V.F. small. $15\frac{3}{4}^h$ to 16^h Sharp decrease in H.F. (− ·0012), continued till $16\frac{1}{2}^h$ by a double-crested wave (− ·0014). $16\frac{1}{4}^h$ to $16\frac{1}{2}^h$ Sharp decrease in Dec. (− 6′). 17^h to $18\frac{1}{4}^h$ Wave in H.F. (− ·0011). 16^h to 18^h Wave in V.F. (+ ·0005). $20\frac{1}{2}^h$ to $21\frac{3}{4}^h$ Double-crested wave in H.F. (+ ·0020). $20\frac{3}{4}^h$ to 22^h Wave in Dec. (− 6′), steep at commencement. $20\frac{3}{4}^h$ to 21^h Decrease in V.F. (− ·0003).

$27^d\ 0\frac{1}{4}^h$ to 2^h Wave in Dec. (+ 4′). $0\frac{3}{4}^h$ to $1\frac{3}{4}^h$ Wave in H.F. (+ ·0010). $17\frac{1}{4}^h$ to $17\frac{3}{4}^h$ Triple-crested wave in H.F. (− ·0014): in Dec. small. $18\frac{1}{4}^h$ Sudden decrease in Dec. (− 3′). $18\frac{1}{2}^h$ to 19^h Double wave in H.F. (− ·0025 to + ·0010), very steep at commencement. $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Double-crested wave in H.F. (− ·0018), with one very sharp sudden movement superposed at 20^h. 20^h Sharp sudden movement in Dec., followed till $20\frac{1}{2}^h$ by a wave (− 4′). $20\frac{1}{2}^h$ to $21\frac{1}{4}^h$ Irregular decrease in Dec. (−8′): sharp double wave in H.F. (− ·0010 to + ·0009), immediately followed by a very sharp wave (+ ·0030). 21^h to $21\frac{1}{2}^h$ Wave in V.F. (− ·0003). $21\frac{1}{4}^h$ to 22^h Double-crested wave in H.F. (− ·0015), followed till $22\frac{3}{4}^h$ by a decrease (− ·0020). $21\frac{3}{4}^h$ to $22\frac{1}{4}^h$ Sharp wave in Dec. (− 5′), followed till $28^d\ 0\frac{1}{2}^h$ by a double wave (− 11′ to +10′). $27^d\ 23^h$ to $28^d\ 0\frac{1}{2}^h$ Double wave in H.F. (− ·0017 to + ·0037), the second portion very steep. $27^d\ 23\frac{3}{4}^h$ to $28^d\ 1\frac{1}{2}^h$ Wave in V.F. (− ·0010).

$28^d\ 2\frac{1}{2}^h$ to $3\frac{3}{4}^h$ Flat-crested wave in Dec. (+ 4′). $6\frac{1}{4}^h$ to 7^h. Waves in Dec. (+ 4′) and H.F. (+ ·0014), with sharp superposed fluctuations continuing until $8\frac{1}{4}^h$: in V.F. small. $9\frac{1}{4}^h$ to $12\frac{3}{4}^h$ Many-crested wave in H.F. (− ·0047), with superposed fluctuations: fluctuations in Dec. also. $10\frac{1}{2}^h$ to 12^h Sharp double-crested wave in Dec. (+ 6′), followed till $12\frac{3}{4}^h$ by a wave (− 4′). $14\frac{3}{4}^h$ to $15\frac{3}{4}^h$ Irregular double-crested wave in H.F. (− ·0020), followed till $16\frac{3}{4}^h$ by a sharp irregular double wave (+ ·0015 to − ·0010), followed till $17\frac{1}{2}^h$ by two successive waves (+ ·0014 and + ·0017), the first very steep. $16\frac{1}{2}^h$ to $16\frac{3}{4}^h$ Decrease in Dec. (− 5′), continued till $17\frac{1}{4}^h$ by a wave (− 7′). $16\frac{1}{2}^h$ to 18^h Wave in V.F. (+ ·0004). 19^h to $20\frac{1}{2}^h$ Wave in H.F. (− ·0014): small double wave in Dec. 21^h to 22^h Decrease in Dec. (− 8′). 22^h to 23^h Double-crested wave in H.F. (− ·0011). $22\frac{3}{4}^h$ to $23\frac{3}{4}^h$ Wave in Dec. (+ 6′), followed till $29^d\ 1^h$ by a sharp wave (+ 20′). 23^h to 24^h Wave in H.F. (− ·0030).

$29^d\ 0^h$ to 2^h Irregular quadruple wave in H.F. (− ·0010, + ·0014, − ·0026, + ·0016). 0^h to 1^h Irregular decrease in V.F. (− ·0014). 2^h to 3^h Irregular increase in Dec. (+ 12′), continuing in a sharp wave (+ 6′), and immediately followed till 5^h by a wave (+ 20′), steep at commencement but irregular at the middle part of the return. $2\frac{3}{4}^h$ to 3^h Sharp decrease in H.F. (− ·0026) and V.F. (− ·0008). $3\frac{1}{2}^h$ to $3\frac{3}{4}^h$ Sharp increase in H.F. (+ ·0046). $3\frac{3}{4}^h$ to $4\frac{3}{4}^h$ Irregular wave in V.F. (− ·0005). $4\frac{1}{2}^h$ to 5^h Sharp wave in H.F. (+ ·0015), continuing till 6^h in a decrease (− ·0024), continuing till 7^h in a wave (− ·0016). 5^h to 7^h Increase in V.F. (+ ·0011). $6\frac{1}{2}^h$ to $7\frac{1}{4}^h$ Wave in Dec. (+ 6′).

1909.

March $30^d\ 0\frac{1}{2}^h$ to $1\frac{1}{2}^h$ Wave in H.F. (+ ·0010): in Dec. small.

$31^d\ 17\frac{3}{4}^h$ to $19\frac{1}{4}^h$ Flat-crested wave in Dec. (− 3′). 22^h to 24^h Double-crested wave in Dec. (− 4′). March $31^d\ 23^h$ to April $1^d\ 1^h$ Double-crested wave in H.F. (− ·0013).

April $9^d\ 21\frac{1}{4}^h$ Sudden increase in H.F. (+ ·0013), followed by slower partial return: similar small movement in Dec.

$10^d\ 11\frac{1}{4}^h$ to 12^h Waves in Dec. (+ 3′) and H.F. (+ ·0014), exceedingly steep at commencement. $13\frac{1}{4}^h$ to $13\frac{3}{4}^h$ Double-crested waves in Dec. (+ 3′) and H.F. (+ ·0019), very steep at both ends. 14^h to $15\frac{1}{4}^h$ Irregular increase in H.F. (+ ·0024), followed till $16\frac{3}{4}^h$ by an irregular wave (− ·0026). $17\frac{1}{2}^h$ to 19^h Fluctuations in H.F. $20\frac{1}{4}^h$ to $21\frac{1}{2}^h$ Irregular wave in Dec. (− 4′).

$11^d\ 14^h$ to 15^h Double-crested wave in H.F. (+ ·0010). $20\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Irregular double wave in Dec. (+ 6′ to − 6′). $11^d\ 21^h$ to $12^d\ 0\frac{1}{2}^h$ Irregular triple wave in H.F. (+ ·0016, − ·0014, + ·0015): the first portion double-crested, the second flat-crested. $11^d\ 23\frac{3}{4}^h$ to $12^d\ 0\frac{1}{2}^h$. Wave in Dec. (+4′).

$12^d\ 16\frac{1}{2}^h$ to $17\frac{1}{2}^h$ Wave in H.F. (− ·0017), steep at commencement. $17\frac{3}{4}^h$ to 19^h Wave in H.F. (− ·0010). $19\frac{3}{4}^h$ to $20\frac{1}{2}^h$ Wave in H.F. (+ ·0013). $20\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Irregular wave in Dec. (− 7′). $20\frac{3}{4}^h$ to 22^h Wave in H.F. (+ ·0018). $12^d\ 23\frac{1}{4}^h$ to $13^d\ 0\frac{1}{2}^h$ Double-crested waves in Dec. (− 3′) and H.F. (+ ·0016).

$13^d\ 22^h$ to $22\frac{1}{2}^h$ Sharp increase in H.F. (+ ·0016), followed by partial return.

$16^d\ 4\frac{1}{2}^h$ to $6\frac{1}{4}^h$ Irregular wave in Dec. (+ 4′). $6\frac{1}{2}^h$ to $7\frac{1}{4}^h$ Double-crested wave in Dec. (+ 4′), very steep at end: fluctuations in H.F. $20\frac{1}{2}^h$ to $21\frac{1}{4}^h$ Steep wave in Dec. (− 6′). $20\frac{1}{2}^h$ to $21\frac{3}{4}^h$ Wave in H.F. (+ ·0025). $21\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Double wave in Dec. (− 4′ to + 8′), followed till $17^d\ 0\frac{1}{4}^h$ by a wave (+ 3′). $21\frac{3}{4}^h$ to $23\frac{1}{4}^h$ Wave in V.F. (+ ·0003). 22^h to $22\frac{3}{4}^h$ Wave in H.F. (− ·0012). $16^d\ 23^h$ to $17^d\ 0\frac{3}{4}^h$ Irregular wave in H.F. (+ ·0020).

$17^d\ 3^h$ to $3\frac{3}{4}^h$ Flat-crested wave in H.F. (− ·0010). 19^h to $20\frac{1}{4}^h$ Wave in Dec. (− 3′). $21\frac{3}{4}^h$ to $22\frac{3}{4}^h$ Wave in H.F. (+ ·0015). 22^h to 23^h Double-crested wave in Dec. (+ 3′). $17^d\ 23\frac{3}{4}^h$ to $18^d\ 3^h$ Double wave in Dec. (+ 4′ to − 7′). $17^d\ 23\frac{3}{4}^h$ to $18^d\ 1\frac{3}{4}^h$ Wave in H.F. (+ ·0016): small wave in V.F.

$18^d\ 16\frac{1}{4}^h$ to $17\frac{1}{4}^h$ Wave in H.F. (− ·0012). $18\frac{1}{2}^h$ to 20^h Two successive waves in H.F. (− ·0010 and − ·0012). $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Double-crested wave in Dec. (− 3′). 21^h to 22^h Double wave in H.F. (− ·0008 to + ·0015), very steep at reversal.

$19^d\ 0\frac{3}{4}^h$ to 2^h Wave in Dec. (+ 3′): in H.F. small. $14\frac{1}{2}^h$ to $15\frac{1}{2}^h$ Wave in H.F. (− ·0010). $22\frac{3}{4}^h$ to 24^h Wave in H.F. (+ ·0010). 23^h to 24^h Wave in Dec. (− 3′).

$20^d\ 10^h$ to 12^h Loss of Dec., H.F. and V.F. registers.

$24^d\ 22^h$ to $22\frac{1}{2}^h$ Wave in H.F (− ·0016), very steep at commencement. $24^d\ 23\frac{3}{4}^h$ to $25^d\ 3^h$ Flat-crested wave in Dec. (− 10′).

$25^d\ 15\frac{3}{4}^h$ to $17\frac{1}{4}^h$ Flat-crested wave in H.F. (+ ·0015). 20^h to $21\frac{1}{4}^h$ Irregular wave in Dec. (− 4′).

$26^d\ 2^h$ to $2\frac{1}{4}^h$ Irregular sharp increase in Dec. (+ 6′). $2\frac{1}{2}^h$ to 4^h Double wave in H.F. (− ·0017 to + ·0020). 2^h to $5\frac{1}{4}^h$ Slow irregular wave in V.F. (− ·0006). 4^h to 6^h Irregular double-crested wave in Dec. (− 9′). $5\frac{3}{4}^h$ to $7\frac{1}{4}^h$ Wave in H.F. (− ·0013). $8\frac{1}{2}^h$ to $9\frac{1}{2}^h$ Wave in Dec. (− 3′). $8\frac{3}{4}^h$ to $10\frac{3}{4}^h$ Wave in H.F. (− ·0015). $12\frac{1}{2}^h$ to 13^h Wave in H.F. (− ·0010). $13\frac{1}{2}^h$ to $14\frac{1}{4}^h$ Sharp double-crested wave in H.F. (− ·0015). $26^d\ 23^h$ to $27^d\ 0\frac{3}{4}^h$ Double wave in Dec. (+ 3′ to − 7′), the first portion double-crested, the second truncated. $26^d\ 23^h$ to $27^d\ 1^h$ Double wave in H.F. (+ ·0018 to − ·0013), the first portion quadruple-crested.

$27^d\ 2\frac{1}{4}^h$ to 4^h Waves in Dec. (+ 5′) and H.F. (− ·0012). 6^h to $8\frac{1}{2}^h$ Wave in H.F. (− ·0019). 7^h to 9^h Double-crested wave in Dec. (+ 4′). $12\frac{1}{4}^h$ to $12\frac{3}{4}^h$ Wave in H.F. (+ ·0010). 17^h to $18\frac{1}{4}^h$ Wave in H.F. (− ·0012).

$30^d\ 3\frac{3}{4}^h$ to 5^h Wave in Dec. (+ 4′).

May $1^d\ 7^h$ to $7\frac{3}{4}^h$ Decrease in H.F. (− ·0014). $15\frac{3}{4}^h$ to 16^h Wave in H.F. (+ ·0011). $16\frac{1}{2}^h$ to $16\frac{3}{4}^h$ Increase in H.F. (+ ·0011). $18\frac{1}{4}^h$ to $19\frac{1}{4}^h$ Wave in Dec. (− 3′).

$2^d\ 9\frac{3}{4}^h$ to $10\frac{3}{4}^h$ Wave in H.F. (− ·0010). $16\frac{1}{4}^h$ to $16\frac{3}{4}^h$ Wave in H.F. (+ ·0012).

$11^d\ 5\frac{1}{2}^h$ to 7^h Wave in H.F. (− ·0012). 6^h to $7\frac{3}{4}^h$ Wave in Dec. (+ 3′). $15\frac{1}{4}^h$ to $16\frac{1}{2}^h$ Wave in H.F. (− ·0020), followed till $17\frac{3}{4}^h$ by a flat-crested wave (− ·0010).

$12^d\ 21\frac{3}{4}^h$ to $22\frac{1}{4}^h$ Sharp wave in Dec. (+ 4′). 22^h to 23^h Wave in H.F. (+ ·0010).

$14^d\ 4^h$ to $15^d\ 4^h$ See Plate II.

$15^d\ 4^h$ to $8\frac{1}{4}^h$ Sharp small fluctuations in Dec., H.F. and V.F. $8\frac{1}{4}^h$ Sudden sharp wave in Dec. (− 4′), fluctuations still continuing. $8\frac{1}{2}^h$ to $9\frac{1}{2}^h$ Wave in H.F. (− ·0018), with superposed sharp fluctuations. 9^h to 10^h Wave in Dec. (− 3′), with superposed sharp fluctuations continuing until $13\frac{1}{2}^h$. $9\frac{1}{2}^h$ to 12^h Very sharp fluctuations in H.F. 12^h Sudden increase in H.F. (+ ·0014). $12\frac{1}{2}^h$ to 13^h Wave in H.F. (+ ·0014), fluctuations continuing till 14^h and with less frequency till 18^h: smaller fluctuations in V.F. 16^h to 19^h Small fluctuations in Dec. $18\frac{1}{4}^h$ to 19^h Wave in H.F. (+ ·0020), very steep at end, followed till 20^h by small waves.

1909.

May

$16^d\ 0\frac{1}{2}^h$ to 2^h Wave in Dec. (+ 3′). 2^h to $3\frac{1}{4}^h$ Flat-crested wave in H.F. (− ·0010), steep at end. $2\frac{3}{4}^h$ to $3\frac{1}{4}^h$ Wave in Dec. (+ 3′).

$17^d\ 7\frac{3}{4}^h$ to $9\frac{1}{2}^h$ Wave in H.F. (− ·0010).

$18^d\ 5^h$ to $19^d\ 5^h$ See Plate II.

$19^d\ 13^h$ to $13\frac{1}{2}^h$ Wave in H.F. (− ·0010). $17\frac{3}{4}^h$ to $18\frac{1}{2}^h$ Wave in H.F. (+ ·0018), steep at commencement: small wave in Dec. 20^h to $21\frac{1}{4}^h$ Wave in Dec. (− 4′). 20^h to 21^h Wave in H.F. (− ·0011).

$20^d\ 15\frac{1}{2}^h$ to $16\frac{3}{4}^h$ Wave in H.F. (− ·0010). $20\frac{1}{2}^h$ to 22^h Wave in Dec. (− 4′), steep at commencement.

$22^d\ 16^h$ to $20\frac{1}{2}^h$ Three successive waves in H.F. (+ ·0011, + ·0010, and + ·0019), the last steep. 19^h to 20^h Wave in Dec. (− 5′).

$23^d\ 16\frac{3}{4}^h$ to 18^h Wave in H.F. (− ·0012).

$26^d\ 0^h$ to $0\frac{1}{4}^h$ Very sharp increase in H.F. (+ ·0025), followed till $0\frac{3}{4}^h$ by slower return (− ·0012): small waves in Dec. and V.F. $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Waves in Dec. (− 7′) and H.F. (+ ·0012).

$27^d\ 9\frac{1}{2}^h$ to $11\frac{1}{4}^h$ Flat-crested wave in H.F. (− ·0010). $13\frac{3}{4}^h$ to 14^h Sharp wave in H.F. (+ ·0013). $15\frac{1}{2}^h$ to $16\frac{1}{2}^h$ Wave in H.F. (− ·0010). 17^h to 18^h Wave in H.F. (− ·0010), steep at commencement.

$28^d\ 6^h$ to $7\frac{1}{2}^h$ Slow wave in Dec. (+ 5′). $21\frac{1}{4}^h$ to 22^h Wave in H.F. (+ ·0010), steep at commencement.

$31^d\ 13\frac{1}{4}^h$ to $15\frac{3}{4}^h$ Triple wave in H.F. (+ ·0016, − ·0012, + ·0012), the first portion double-crested. 16^h to 18^h Two successive waves in H.F. (+ ·0014 and + ·0012).

June

$1^d\ 14^h$ to 17^h Triple wave in H.F., (− ·0012, + ·0014, − ·0015). $18\frac{3}{4}^h$ to 20^h Wave in H.F. (+ ·0012), preceded and followed by smaller waves.

$2^d\ 9\frac{3}{4}^h$ to 11^h Wave in H.F. (− ·0010). 17^h to $18\frac{1}{2}^h$ Wave in H.F. (− ·0013).

$5^d\ 1\frac{3}{4}^h$ to $3\frac{1}{2}^h$ Wave in Dec. (+4′).

$9^d\ 20\frac{1}{2}^h$ to $10^d\ 9\frac{1}{2}^h$ Loss of Dec. and H.F. registers.

$11^d\ 14\frac{3}{4}^h$ to 15^h Sharp increase in H.F. (+ ·0011). $15\frac{1}{2}^h$ to $16\frac{1}{4}^h$ Wave in H.F. (+ ·0010). $16\frac{1}{2}^h$ to 17^h Wave in H.F. (+ ·0012). 19^h to $19\frac{3}{4}^h$ Wave in H.F. (− ·0016).

$13^d\ 21\frac{3}{4}^h$ to 24^h Sharp fluctuations in H.F.

$14^d\ 16\frac{1}{2}^h$ to $17\frac{1}{4}^h$ Double-crested wave in H.F. (+ ·0018), steep at commencement. $21\frac{1}{2}^h$ to $22\frac{1}{4}^h$ Wave in Dec. (− 4′): in H.F. small.

$15^d\ 12\frac{1}{4}^h$ to $14\frac{1}{4}^h$ Flat-crested wave in H.F. (− ·0028), followed till 16^h by a triple-crested wave (+ ·0012). 21^h to $21\frac{1}{4}^h$ Decrease in Dec. (− 3′).

$16^d\ 3\frac{1}{2}^h$ to $4\frac{3}{4}^h$ Waves in Dec. (+5′) and H.F. (− ·0010).

$17^d\ 21^h$ to 22^h Irregular wave in Dec. (− 3′).

$18^d\ 2\frac{3}{4}^h$ to 4^h Wave in Dec. (+ 3′).

$21^d\ 5\frac{1}{2}^h$ to $5\frac{3}{4}^h$ Sharp wave in Dec. (− 4′). $14\frac{1}{2}^h$ to $15\frac{1}{4}^h$ Double-crested wave in H.F. (− ·0010), with small superposed fluctuations. 16^h to $17\frac{1}{2}^h$ Double wave in H.F. (+ ·0017 to − ·0018), with superposed fluctuations, the second portion triple-crested: small waves in Dec. $17\frac{3}{4}^h$ to $18\frac{1}{4}^h$ Sharp double wave in H.F. (+ ·0014 to − ·0011): in Dec. small. $19\frac{1}{4}^h$ to $19\frac{1}{2}^h$ sharp wave in H.F. (+ ·0011).

$22^d\ 14\frac{3}{4}^h$ to 15^h Sharp wave in H.F. (− ·0010), followed till $15\frac{3}{4}^h$ by a very sharp triple-crested wave (+·0019). $16\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Irregular sharp quadruple-crested wave in H.F. (+ ·0033). 18^h to $18\frac{1}{4}^h$ Sharp decrease in Dec. (− 5′). $18\frac{3}{4}^h$ to 19^h Sharp decrease in H.F. (− ·0013). $22\frac{1}{2}^h$ to $23\frac{1}{4}^h$ Wave in Dec. (− 3′). $22\frac{1}{2}^h$ to 24^h Double wave in H.F. (+ ·0014 to − ·0010). $23\frac{1}{2}^h$ to $23\frac{3}{4}^h$ Decrease in Dec. (− 4′).

$23^d\ 1\frac{1}{2}^h$ to $3\frac{1}{4}^h$ Double wave in Dec. (+ 10′ to − 3′), the first portion very steep: double wave in H.F. (+ ·0010 to − ·0010). $1\frac{3}{4}^h$ to $2\frac{1}{4}^h$ Sharp decrease in V.F. (− ·0007). $18\frac{3}{4}^h$ to 19^h Increase in H.F. (+ ·0015).

$24^d\ 2^h$ to $3\frac{1}{4}^h$ Wave in Dec. (+4′), steep at end. 13^h to 18^h Succession of small waves in H.F.

$25^d\ 23\frac{1}{4}^h$ to $26^d\ 0\frac{1}{4}^h$ Wave in Dec. (− 3′).

$28^d\ 12\frac{1}{4}^h$ to $13\frac{1}{2}^h$ Wave in H.F. (− ·0015). $16\frac{1}{4}^h$ to $16\frac{1}{2}^h$ Sharp wave in H.F. (+ ·0012).

$29^d\ 1\frac{3}{4}^h$ to $2\frac{1}{2}^h$ Sharp waves in Dec. (+ 13′) and H.F. (+ ·0028). 2^h to $3\frac{1}{4}^h$ Wave in V.F. (− ·0007), steep at commencement. $3\frac{1}{4}^h$ to $5\frac{3}{4}^h$ Irregular double wave in H.F. (+ ·0013 to − ·0014). $3\frac{1}{2}^h$ to 5^h Irregular wave in Dec. (+ 4′). 6^h to 7^h Sharp triple-crested wave in Dec. (+ 4′). $11\frac{3}{4}^h$ to 13^h Flat-crested wave in H.F. (− ·0013), with superposed fluctuations. 18^h to $18\frac{3}{4}^h$ Wave in H.F. (− ·0010). $29^d\ 23\frac{3}{4}^h$ to $30^d\ 1\frac{1}{4}^h$ Irregular double wave in Dec. (− 4′ to + 3′).

$30^d\ 14^h$ to $14\frac{3}{4}^h$ Wave in H.F. (+ ·0014), with superposed fluctuations. 18^h to 19^h Irregular double-crested wave in H.F. (− ·0013). $18\frac{3}{4}^h$ to 20^h Wave in Dec. (− 4′). $23\frac{1}{4}^h$ to 24^h Wave in H.F. (+ ·0010): in Dec. small.

1909.

July

$1^d\ 16^h$ to $17\frac{1}{4}^h$ Truncated wave in H.F. (− ·0018).

$2^d\ 23\frac{3}{4}^h$ to $3^d\ 1^h$ Waves in Dec. (+ 3′) and H.F. (+ ·0011), each with fluctuations superposed on the first portion.

$3^d\ 11\frac{3}{4}^h$ to $12\frac{3}{4}^h$ Wave in H.F. (− ·0010). $13\frac{1}{2}^h$ to $14\frac{1}{4}^h$ Wave in H.F. (− ·0010).

$8^d\ 16\frac{1}{2}^h$ to $17\frac{1}{2}^h$ Flat-crested wave in H.F. (+ ·0010). $8^d\ 23\frac{1}{2}^h$ to $9^d\ 1^h$ Wave in H.F. (+ ·0014).

$9^d\ 16\frac{3}{4}^h$ to 18^h Wave in H.F. (− ·0010). $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Wave in Dec. (− 5′), steep at commencement. $21\frac{1}{2}^h$ to 22^h Sharp wave in H.F. (− ·0010).

$12^d\ 16^h$ to 18^h Double wave in H.F. (+ ·0015 to − ·0010). $18\frac{3}{4}^h$ to $20\frac{3}{4}^h$ Irregular wave in H.F. (+ ·0016), followed till 22^h by another irregular wave (+ ·0015). $20\frac{3}{4}^h$ to $21\frac{1}{4}^h$ Sharp wave in Dec. (+ 4′). $21\frac{3}{4}^h$ to 22^h Sharp decrease in Dec. (− 5′). $22\frac{3}{4}^h$ to $23\frac{1}{4}^h$ Wave in H.F. (+ ·0011).

$13^d\ 0\frac{1}{4}^h$ to $1\frac{1}{4}^h$ Wave in Dec. (− 3′). $2\frac{1}{4}^h$ to 3^h Wave in Dec. (+ 3′). $5\frac{3}{4}^h$ to 7^h Irregular wave in Dec. (+ 5′). $14\frac{1}{2}^h$ to 16^h Wave in H.F. (− ·0014), with fluctations superposed on latter portion. $20\frac{1}{2}^h$ to 22^h Irregular wave in Dec. (+ 5′): small successive waves in H.F.

$14^d\ 14\frac{3}{4}^h$ to $15\frac{1}{4}^h$ Sharp double-crested wave in H.F. (− ·0014). $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Wave in H.F. (− ·0010). $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Wave in H.F. (+ ·0016).

$15^d\ 1\frac{3}{4}^h$ to $3\frac{1}{4}^h$ Wave in Dec. (− 3′). $3\frac{1}{4}^h$ to $4\frac{3}{4}^h$ Wave in H.F. (− ·0014). $13\frac{1}{2}^h$ to 14^h Wave in H.F. (+ ·0010).

$16^d\ 22^h$ to $23\frac{1}{2}^h$ Flat-crested wave in Dec. (− 3′).

$17^d\ 16^h$ to $18^d\ 11^h$ Loss of Dec. register.

$21^d\ 18^h$ to 19^h Double-crested wave in H.F. (+ ·0011). 19^h to $20\frac{1}{4}^h$ Wave in Dec. (− 4′). $22\frac{1}{4}^h$ to $23\frac{1}{4}^h$ Wave in H.F. (+ ·0010), steep at end. $21^d\ 23^h$ to $22^d\ 0\frac{1}{2}^h$ Wave in Dec. (− 7′), steep at commencement.

$22^d\ 3\frac{3}{4}^h$ to 5^h Wave in Dec. (+ 3′).

$23^d\ 0\frac{3}{4}^h$ to $2\frac{1}{2}^h$ Flat-crested wave in Dec. (− 4′), followed till $3\frac{3}{4}^h$ by a wave (− 4′): small wave in H.F. 15^h to 16^h Very irregular wave in H.F. (− ·0012). $15\frac{3}{4}^h$ to $16\frac{3}{4}^h$ Wave in Dec. (−3′). $17\frac{3}{4}^h$ to $18\frac{3}{4}^h$ Double wave in H.F. (+ ·0008 to − ·0011), the second portion triple-crested. 22^h to $22\frac{1}{2}^h$ Wave in Dec. (− 3′).

$24^d\ 0^h$ to $1\frac{1}{4}^h$ Wave in H.F. (− ·0014), steep at commencement. $2\frac{1}{4}^h$ to $3\frac{1}{4}^h$ Irregular wave in Dec. (+ 6′). $2\frac{1}{2}^h$ to $3\frac{1}{4}^h$ Wave in H.F. (+ ·0012). 4^h to 5^h Wave in H.F. (− ·0024). $4\frac{1}{4}^h$ to $5\frac{1}{2}^h$ Wave in Dec. (+ 9′). 5^h to 6^h Wave in H.F. (+ ·0010). 7^h to $8\frac{1}{4}^h$ Wave in Dec. (− 3′). $16\frac{1}{2}^h$ to 17^h Double-crested wave in H.F. (+ ·0010). $21\frac{1}{4}^h$ to 22^h Wave in Dec. (− 3′).

$26^d\ 5\frac{3}{4}^h$ to 7^h Wave in H.F. (− ·0010).

$27^d\ 20^h$ to 21^h Wave in H.F. (+ ·0011): small double wave in Dec. $21\frac{3}{4}^h$ to $22\frac{1}{2}^h$ Double wave in H.F. (+ ·0009 to − ·0008): small waves in Dec.

$28^d\ 14\frac{1}{4}^h$ to 15^h Wave in H.F. (+ ·0017). 18^h to $18\frac{3}{4}^h$ Wave in H.F. (+ ·0010). 19^h to $19\frac{1}{4}^h$ Sharp decrease in Dec. (− 4′). 19^h to $20\frac{1}{4}^h$ Double-crested wave in H.F. (− ·0018). 20^h to 21^h Irregular wave in Dec. (+ 4′). $20\frac{3}{4}^h$ to 21^h Decrease in H.F. (− ·0012), followed till 22^h by a wave (+ ·0016).

$29^d\ 1^h$ to $4\frac{3}{4}^h$ Two successive irregular waves in H.F. (+ ·0023 and + ·0019). $1\frac{3}{4}^h$ to $3\frac{1}{4}^h$ Wave in V.F. (− ·0004). 2^h to $3\frac{3}{4}^h$ Flat-crested wave in Dec. (− 5′), followed till 4^h by a decrease (− 3′). 5^h to $6\frac{3}{4}^h$ Irregular double-crested wave in Dec. (− 3′). 12^h to 13^h Wave in H.F. (+ ·0017). $14\frac{3}{4}^h$ to $15\frac{1}{2}^h$ Wave in H.F. (+ ·0019). 17^h to $18\frac{1}{2}^h$ Flat-crested wave in H.F. (− ·0010).

$30^d\ 14\frac{3}{4}^h$ to $15\frac{1}{2}^h$ Wave in H.F. (+ ·0010). $19\frac{1}{4}^h$ to 20^h Wave in Dec. (− 3′).

$31^d\ 22\frac{1}{2}^h$ to $23\frac{1}{4}^h$ Wave in Dec. (+ 3′): in H.F. small.

August

$1^d\ 20^h$ to 21^h Wave in Dec. (− 3′).

$2^d\ 0\frac{1}{2}^h$ to $1\frac{3}{4}^h$ Wave in H.F. (+ ·0010). $1\frac{3}{4}^h$ to $2\frac{3}{4}^h$ Double-crested wave in Dec. (+ 3′). 4^h to 6^h Irregular triple-crested wave in Dec. (− 4′), followed till $7\frac{1}{2}^h$ by a wave (+ 3′). $4\frac{3}{4}^h$ to $6\frac{1}{4}^h$ Wave in H.F. (− ·0014). $14\frac{1}{4}^h$ to 15^h Sharp wave in H.F. (+ ·0015). $16\frac{1}{2}^h$ to $17\frac{3}{4}^h$ Sharp double wave in H.F. (− ·0010 to + ·0015), followed till $20\frac{3}{4}^h$ by three successive waves (+ ·0011, + ·0015, and + ·0010), the second double-crested. 21^h to 23^h Two successive irregular waves in Dec. (− 9′ and − 5′): small waves in H.F.

$3^d\ 0\frac{1}{4}^h$ to $1\frac{3}{4}^h$ Two successive waves in H.F. (+ ·0012 and + ·0012). $0\frac{1}{2}^h$ to 2^h Wave in V.F. (− ·0003). $0\frac{3}{4}^h$ to 1^h Sharp decrease in Dec. (− 9′). 8^h to $8\frac{1}{2}^h$ Wave in Dec. (− 3′). $9\frac{3}{4}^h$ to $10\frac{3}{4}^h$ Irregular wave in H.F. (− ·0016). $14\frac{3}{4}^h$ to $15\frac{3}{4}^h$ Wave in H.F. (− ·0014).

$4^d\ 0\frac{1}{2}^h$ to $1\frac{3}{4}^h$ Irregular wave in Dec. (+ 4′).

$5^d\ 15\frac{3}{4}^h$ to 16^h Increase in H.F. (+ ·0013).

1909.

August

7^d $5\frac{3}{4}^h$ Very sharp wave in Dec. (+ 4′): sudden increase in H.F. (+ ·0008). $7\frac{3}{4}^h$ to 8^h Sharp wave in H.F. (− ·0010): in Dec. small. $18\frac{1}{4}^h$ to $19\frac{1}{4}^h$ Wave in H.F. (− ·0010). $19\frac{3}{4}^h$ to 22^h Irregular wave in Dec. (− 6′).

8^d 0^h to 1^h Wave in H.F. (− ·0011) $0\frac{1}{2}^h$ to $1\frac{3}{4}^h$ Flat-crested wave in Dec. (+ 3′). 17^h to $17\frac{3}{4}^h$ wave in H.F. (+ ·0010), followed till 19^h by sharp double-crested wave (+ ·0011).

9^d $0\frac{3}{4}^h$ to $2\frac{1}{4}^h$ Irregular double-crested wave in Dec. (− 6′). $1\frac{3}{4}^h$ to 4^h Irregular double wave in H.F (− ·0018 to + ·0010). 2^h to 4^h Decrease in V.F. (− ·0007). $4\frac{1}{4}^h$ to 5^h Sharp decrease in H.F. (− ·0036), followed till $6\frac{3}{4}^h$ by two successive waves (+ ·0010 and + ·0010). $4\frac{3}{4}^h$ to $5\frac{1}{4}$ Irregular wave in Dec. (− 3′). $5\frac{3}{4}^h$ to 6^h Irregular increase in Dec. (+ 4′), followed till $7\frac{1}{4}^h$ by a wave (− 5′). $17\frac{1}{2}^h$ to $18\frac{1}{4}^h$ Wave in Dec. (− 6′). $17\frac{1}{2}^h$ to $18\frac{3}{4}^h$ Double wave in H.F. (− ·0010 to + ·0014). 9^d $23\frac{1}{4}^h$ to 10^d $0\frac{1}{4}^h$ Two successive waves in Dec. (+ 3′ and + 4′). 9^d $23\frac{1}{4}^h$ to 10^d $0\frac{3}{4}^h$ Irregular double-crested wave in H.F. (+ ·0013). 9^d $23\frac{1}{2}^h$ to 10^d $0\frac{1}{4}^h$ Decrease in V.F. (− ·0004).

10^d $12\frac{1}{2}^h$ to $13\frac{1}{4}^h$ Sharp wave in H.F. (− ·0012). 19^h to $20\frac{1}{2}^h$ Wave in Dec. (− 3′). $23\frac{1}{2}^h$ to 24^h Wave in Dec. (− 4′): in H.F. small.

11^d $2\frac{1}{4}^h$ to 4^h Wave in Dec. (+ 8′): small sharp wave in H.F. 11^h to $12\frac{1}{4}^h$ Wave in H.F. (− ·0014). 14^h to $14\frac{3}{4}^h$ Double wave in H.F. (+ ·0012 to − ·0011). $16\frac{3}{4}^h$ to 18^h Wave in H.F. (+ ·0011), with sharp superposed fluctuations : fluctuations also in Dec.

12^d $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Wave in H.F. (+ ·0014).

13^d 3^h to $4\frac{3}{4}^h$ Flat-crested wave in Dec. (+ 4′). $22\frac{3}{4}^h$ to $23\frac{1}{2}^h$ Waves in Dec. (+ 3′) and H.F. (+ ·0011).

14^d 7^h to $11\frac{1}{2}^h$ Loss of Dec. and H.F. registers.

15^d $14\frac{1}{2}^h$ to $17\frac{1}{2}^h$ Loss of Dec. register.

18^d $23\frac{1}{2}^h$ to 19^d 1^h Waves in Dec. (+ 5′) and H.F. (+ ·0021). 18^d $23\frac{3}{4}^h$ to 19^d $0\frac{1}{2}^h$ Decrease in V.F. (− ·0005).

19^d $2\frac{1}{4}^h$ to 4^h Irregular wave in Dec. (− 3′). $4\frac{1}{4}^h$ to 5^h Wave in H.F. (+ ·0012). $4\frac{1}{2}^h$ to 6^h Triple-crested wave in Dec. (− 3′). $10\frac{1}{2}^h$ to 11^h Wave in H.F. (+ ·0012). $11\frac{1}{2}^h$ to $12\frac{1}{2}^h$ Wave in H.F. (− ·0017). 16^h to 17^h Wave in H.F. (− ·0010).

20^d $3\frac{3}{4}^h$ to $5\frac{1}{4}^h$ Slow wave in Dec. (+ 3′). 4^h to $6\frac{1}{4}^h$ Slow wave in H.F. (+ ·0013). 17^h to 18^h Wave in Dec. (− 3′).

22^d $23\frac{1}{4}^h$ to 23^d 1^h Flat-crested wave in Dec. (− 4′).
23^d 0^h to $1\frac{1}{4}^h$ Wave in H.F. (− ·0010).

24^d 22^h to $22\frac{1}{4}^h$ Sharp decrease in Dec. (− 4′). 22^h to $23\frac{1}{4}^h$ Double-crested wave in H.F. (+ ·0012).

25^d $2\frac{1}{4}^h$ to $3\frac{1}{4}^h$ Waves in Dec. (+ 4′) and H.F. (+ ·0012). 16^h to 17^h Flat-crested wave in H.F. (− ·0010).

26^d 2^h to $3\frac{3}{4}^h$ Double wave in Dec. (+ 4′ to − 3′). $12\frac{1}{4}^h$ to 14^h Two successive waves in H.F. (+ ·0013 and + ·0010). $14\frac{3}{4}^h$ to 15^h Increase in H.F. (+ ·0011), immediately followed till $16\frac{1}{4}^h$ by a wave (− ·0015). 19^h to 20^h Wave in H.F. (− ·0012). $19\frac{1}{4}^h$ to $20\frac{1}{2}^h$ Wave in Dec. (− 4′). 23^h to 24^h Wave in H.F. (+ ·0020).

27^d 2^h to $3\frac{1}{2}^h$ Sharp wave in Dec. (+ 11′). 2^h to $2\frac{3}{4}^h$ Wave in V.F. (+ ·0003): in H.F. small. 6^h to 8^h Slow wave in H.F. (+ ·0010), with small superposed movements continuing until 9^h.

28^d $17\frac{1}{4}^h$ Sharp increase in H.F. (+ ·0012): in Dec. small. $18\frac{1}{4}^h$ to $18\frac{3}{4}^h$ Wave in H.F. (− ·0010). $19\frac{1}{4}^h$ to $20\frac{1}{4}^h$ Double wave in H.F. (+ ·0010 to − ·0009). 21^h to $21\frac{1}{4}^h$ Sharp wave in H.F. (− ·0010). $21\frac{3}{4}^h$ to 22^h Sharp decrease in H.F. (− ·0012). $22\frac{3}{4}^h$ to 24^h Wave in Dec. (+ 5′): double wave in H.F. (+ ·0013 to − ·0010). 28^d 23^h to 29^d 1^h Wave in V.F. (− ·0007).

29^d 0^h to $1\frac{1}{4}^h$ Wave in Dec. (− 3′): double-crested wave in H.F. (− ·0010). $2\frac{3}{4}^h$ to 4^h Wave in Dec. (+ 7′). $4\frac{1}{4}^h$ to 6^h Flat-crested wave in Dec. (− 4′). $5\frac{1}{2}^h$ to $6\frac{1}{2}^h$ Irregular decrease in H.F. (− ·0028), followed till 9^h by an irregular triple-crested wave (+ ·0017). $6\frac{3}{4}^h$ to $7\frac{1}{4}^h$ Increase in Dec. (+ 5′). 8^h to $9\frac{3}{4}^h$ Three successive waves in Dec. (− 3′, − 3′, and − 3′). $10\frac{3}{4}^h$ to $13\frac{1}{4}^h$ Double wave in H.F. (− ·0017 to + ·0013). $14\frac{1}{4}^h$ to $15\frac{1}{4}^h$ Double-crested wave in H.F. (+ ·0010). $16\frac{1}{4}^h$ to $17\frac{1}{4}^h$ Irregular wave in H.F. (+ ·0012), followed till 19^h by an irregular wave (+ ·0022). $18\frac{3}{4}^h$ to 22^h Irregular quadruple-crested wave in Dec. (− 14′), the first portion very steep. 19^h to 20^h Sharp wave in H.F. (+ ·0056), the return irregular, followed till $20\frac{1}{2}^h$ by a wave (+ ·0015). $19\frac{1}{4}^h$ to $19\frac{1}{2}^h$ Decrease in V.F. (− ·0004). $22\frac{1}{4}^h$ to 23^h Waves in Dec. (− 3′) and H.F. (− ·0011).

30^d 0^h to $0\frac{3}{4}^h$ Wave in Dec. (+ 4′). $4\frac{1}{2}^h$ to $6\frac{3}{4}^h$ Irregular wave in H.F. (− ·0016), followed by sharp vibrations until $9\frac{1}{2}^h$. 5^h to $6\frac{1}{4}^h$ Wave in Dec. (+ 5′). $6\frac{3}{4}^h$ to $7\frac{1}{4}$ Wave in Dec. (+ 3′). $9\frac{1}{2}^h$ to 10^h Decrease in H.F. (− ·0012), continued till $10\frac{3}{4}^h$ by a wave (− ·0014), followed by smaller waves superposed on a general increase (+ ·0010) till $12\frac{3}{4}^h$. $12\frac{3}{4}^h$ to $13\frac{1}{2}^h$ Double-crested wave in H.F. (− ·0013). $13\frac{1}{2}^h$ to 14^h Sharp decrease in Dec. (− 8′). $13\frac{1}{2}^h$ to 16^h Two successive irregular waves in H.F. (− ·0011 and − ·0010). $16\frac{1}{2}^h$ to 18^h Wave in Dec. (− 9′): sharp double wave in H.F. (− ·0033 to + ·0014). 19^h to 22^h Irregular double-crested wave in Dec. (− 14′). $19\frac{1}{2}^h$ to $20\frac{3}{4}^h$ Irregular double wave in H.F. (− ·0011 to + ·0017), the middle portion steep, the last double-crested, continued till $21\frac{1}{2}^h$ by slow decrease (− ·0014). 23^h Sharp decrease in Dec. (− 3′).

1909.

August $31^d\ 0^h$ to $0\frac{3}{4}^h$ Wave in H.F. (+ ·0013). 1^h to 4^h Successive small waves in Dec. and H.F. $6\frac{3}{4}^h$ to $7\frac{3}{4}$ Wave in H.F. (− ·0014). 7^h to $7\frac{3}{4}^h$ Wave in Dec. (− 3′). $15\frac{3}{4}^h$ to 18^h Double wave in H.F. (− ·0016 to + ·0016), the first portion irregular. $16\frac{1}{4}^h$ to 18^h Wave in Dec. (− 7′).

September $1^d\ 1^h$ to 2^h Sharp wave in Dec. (+ 8′). $1\frac{1}{2}^h$ to $1\frac{3}{4}^h$ Decrease in V.F. (− ·0003).

$2^d\ 0^h$ to $1\frac{1}{4}^h$ Flat-crested wave in Dec. (+ 3′). 16^h to $17\frac{1}{2}^h$ Wave in H.F. (− ·0010). 23^h to 24^h Sharp double wave in Dec. (+ 3′ to − 3′): wave in H.F. (+ ·0011): small wave in V.F.

$3^d\ 6^h$ to $6\frac{1}{4}^h$ Very sharp wave in Dec. (+ 3′). $6\frac{3}{4}^h$ to 7^h Sharp wave in Dec. (+ 3′). $10\frac{1}{4}^h$ to $11\frac{1}{4}^h$ Wave in H.F. (+ ·0011). 14^h to $16\frac{3}{4}^h$ Irregular double-crested wave in H.F. (− ·0018), followed till $17\frac{1}{4}^h$ by a sharp wave (−·0033). $16\frac{3}{4}^h$ to 18^h Irregular wave in Dec. (−7′), steep at commencement. $16\frac{3}{4}^h$ to $17\frac{1}{4}^h$ Small sharp wave in V.F. 23^h to 24^h Decreases in Dec. (− 7′), H.F. (− ·0014), and V.F. (− ·0004).

$4^d\ 0^h$ to 2^h Flat-crested wave in Dec. (− 6′). 0^h to $0\frac{3}{4}^h$ Wave in H.F. (− ·0011). 5^h to $6\frac{1}{2}^h$ Wave in H.F. (+ ·0010). $19\frac{3}{4}^h$ to 21^h Wave in Dec. (− 6′). $21\frac{1}{4}^h$ to $23\frac{1}{4}^h$ Wave in H.F. (+ ·0010).

$5^d\ 12\frac{3}{4}^h$ to 14^h Irregular double-crested wave in H.F (+ ·0016). 19^h to 21^h Wave in Dec. (− 9′), steep at commencement. 19^h to $19\frac{1}{2}^h$ Steep wave in H.F. (− ·0015). $5^d\ 23\frac{1}{2}^h$ to $6^d\ 0\frac{3}{4}^h$ Wave in Dec. (+ 5′): irregular flat-crested wave in H.F. (+ ·0011).

$6^d\ 1^h$ to 4^h Irregular wave in Dec. (+ 7′). $1\frac{3}{4}^h$ Sudden increase in H.F. (+ ·0011): in V.F. small. $3\frac{3}{4}^h$ to $5\frac{1}{2}^h$ Wave in H.F. (− ·0010). $11\frac{3}{4}^h$ to $12\frac{3}{4}^h$ Wave in H.F. (+ ·0014). 14^h to 15^h Wave in H.F. (− ·0010). $18\frac{1}{2}^h$ to 20^h Double-crested wave in Dec. (− 5′). $22\frac{1}{4}^h$ to 23^h Wave in Dec. (+ 4′): in H.F. small.

$7^d\ 13\frac{1}{2}^h$ Sudden decrease in H.F. (− ·0010). $15\frac{3}{4}^h$ to $16\frac{1}{4}^h$ Wave in H.F. (− ·0010). 17^h to $18\frac{1}{2}^h$ Wave in H.F. (− ·0010). 20^h to $21\frac{1}{2}^h$ Irregular double-crested waves in Dec. (− 5′) and H.F. (+ ·0020).

$8^d\ 1\frac{3}{4}^h$ to $2\frac{3}{4}^h$ Slow decrease in Dec. (− 5′). 15^h to 17^h Wave in Dec. (− 7′), steep at commencement. 15^h to $16\frac{1}{2}^h$ Sharp double wave in H.F. (− ·0017 to + ·0013). $16\frac{3}{4}^h$ to 18^h Wave in H.F. (+ ·0016), followed till $18\frac{3}{4}^h$ by another wave (+ ·0017), steep at commencement. $17\frac{3}{4}^h$ to 19^h Steep wave in Dec. (− 8′). $20\frac{1}{2}^h$ to 22^h Two successive waves in Dec. (− 3′ and − 3′): double-crested wave in H.F. (+ ·0015). $8^d\ 23^h$ to $9^d\ 0\frac{1}{4}^h$ Decrease in Dec. (− 4′), immediately followed by a wave (+ 5′). $23\frac{1}{4}^h$ to 24^h Wave in H.F. (+ ·0016): in V.F. small.

$9^d\ 2^h$ to $3\frac{3}{4}^h$ Double-crested wave in Dec. (+ 6′). $2\frac{1}{2}^h$ to 4^h Double-crested wave in H.F. (+ ·0012). 14^h to 15^h Wave in H.F. (− ·0014).

$10^d\ 12\frac{3}{4}^h$ to $11^d\ 10^h$ Loss of H.F. register. 23^h to 24^h Wave in Dec. (+ 5′).

$13^d\ 22\frac{1}{2}^h$ to 23^h Wave in H.F. (+ ·0010).

$14^d\ 22\frac{1}{4}^h$ to $15^d\ 1\frac{1}{4}^h$ Irregular wave in Dec. (− 6′)

$15^d\ 4\frac{3}{4}^h$ to $6\frac{3}{4}^h$ Wave in Dec. (+ 7′).

$20^d\ 19\frac{1}{2}^h$ to 21^h Flat-crested wave in Dec. (− 4′). $23\frac{3}{4}^h$ to 24^h Sharp increase in H.F. (+ ·0010): in Dec. small.

$21^d\ 0^h$ to $1\frac{1}{4}^h$ Wave in Dec. (− 4′). 0^h to $1\frac{1}{2}^h$ Wave in H.F. (− ·0012). $11\frac{1}{4}^h$ to $11\frac{1}{2}^h$ Sharp increase in H.F. (+ ·0015): in Dec. small. 12^h to $12\frac{3}{4}^h$ Wave in H.F. (+ ·0018). $12\frac{1}{4}^h$ to 13^h Wave in Dec. (+ 4′). 13^h to 17^h Increase in V.F. (+ ·0015), continued till 19^h by a sharp wave (+ ·0010). $13\frac{1}{4}^h$ to $14\frac{1}{2}^h$ Double wave in H.F. (+ ·0025 to − ·0020). $13\frac{1}{2}^h$ to $15\frac{3}{4}^h$ Irregular wave in Dec. (+ 8′). $14\frac{1}{2}^h$ to 15^h Irregular decrease in H.F. (− ·0017). $15\frac{3}{4}^h$ to $16\frac{1}{4}^h$ Sharp wave in H.F. (+ ·0013). $16\frac{1}{2}^h$ to 18^h Sharp double wave in H.F. (+ ·0024 to − ·0036), the second portion very steep. 17^h to $17\frac{1}{2}^h$ Wave in Dec. (− 3′), followed till $17\frac{3}{4}^h$ by a sharp decrease (− 18′), followed till $20\frac{1}{2}^h$ by an irregular wave (+ 13′). $21\frac{1}{4}^h$ to 22^h Sharp wave in Dec. (+ 5′). $22\frac{1}{2}^h$ to $23\frac{3}{4}^h$ Sharp double wave in Dec. (+ 7′ to − 5′), followed till $22^d\ 0\frac{1}{2}^h$ by an irregular increase (+ 5′). $22\frac{1}{2}^h$ to 24^h Very sharp double-crested wave in H.F. (+ ·0035). $22\frac{1}{2}^h$ to 23^h Sharp decrease in V.F. (− ·0007).

$22^d\ 0\frac{1}{4}^h$ to $0\frac{3}{4}^h$ Increase in H.F. (+·0018). $0\frac{1}{2}^h$ to $2\frac{1}{4}^h$ Wave in Dec. (− 8′). $1\frac{1}{2}^h$ to 3^h Wave in H.F. (− ·0016).

$23^d\ 7^h$ to $7\frac{3}{4}^h$ Decrease in H.F. (− ·0016).

$24^d\ 11^h$ to $11\frac{3}{4}^h$ Sharp decrease in H.F. (− ·0018), followed by an increase (+ ·0012).

$25^d\ 7^h$ to $26^d\ 7^h$ See Plate III.

$26^d\ 10\frac{1}{4}^h$ to $10\frac{1}{2}^h$ Increase in H.F. (+ ·0015). $20\frac{1}{2}^h$ to $22\frac{1}{4}^h$ Double-crested wave in H.F. (+ ·0014). 21^h to 22^h Wave in Dec. (− 3′).

$27^d\ 17\frac{3}{4}^h$ to $18\frac{3}{4}^h$ Irregular wave in Dec. (− 4′).

$28^d\ 15\frac{1}{2}^h$ to 17^h Wave in H.F. (− ·0030). $15\frac{3}{4}^h$ to $16\frac{1}{4}^h$ Decrease in Dec. (− 4′).

$29^d\ 21\frac{1}{4}^h$ to 22^h Decrease in V.F. (− ·0003).

$30^d\ 0^h$ to 24^h See Plate IV.

1909.

October

$1^d\ 22\frac{3}{4}^h$ to $23\frac{1}{4}^h$ Wave in Dec. (+ 3′). $1^d\ 23\frac{1}{2}^h$ to $2^d\ 0\frac{1}{2}^h$ Wave in H.F. (− ·0012).

$2^d\ 0^h$ to $0\frac{1}{2}^h$ Increase in Dec. (+5′), followed till 2^h by slow irregular return. $0\frac{1}{2}^h$ to 1^h Decrease in V.F. (− ·0003). 1^h to $1\frac{1}{4}^h$ Decrease in H.F. (− ·0010). 6^h to $8\frac{1}{4}^h$ Wave in H.F. (− ·0034). 7^h to $8\frac{1}{4}^h$ Flat-crested wave in Dec. (+ 5′). 11^h to $11\frac{1}{2}^h$ Increase in Dec. (+ 4′). $11\frac{3}{4}^h$ to 12^h Sharp decrease in H.F. (− ·0014). 12^h to 13^h Increase in V.F. (+ ·0005). $12\frac{3}{4}^h$ to 14^h Irregular wave in Dec. (+ 5′). Double-crested wave in H.F. (+ ·0024), followed till $16\frac{1}{2}^h$ by a slow wave (+ ·0012). $16\frac{1}{2}^h$ to $17\frac{1}{2}^h$ Irregular wave in Dec. (− 7′). $16\frac{1}{2}^h$ to $19\frac{1}{4}^h$ Irregular double wave in H.F. (− ·0020 to + ·0020). $16\frac{1}{2}^h$ to $18\frac{1}{4}^h$ Wave in V.F. (+ ·0004). 19^h to 22^h Irregular triple-crested wave in Dec. (− 8′), followed till $23\frac{1}{2}^h$ by a wave (− 7′). $20\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Irregular triple-crested wave in H.F. (− ·0017), followed till $23\frac{3}{4}^h$ by a flat-crested wave (− ·0010).

$3^d\ 18^h$ to $18\frac{3}{4}^h$ Wave in Dec. (− 4′). $18\frac{1}{4}^h$ to $19\frac{3}{4}^h$ Double-crested wave in H.F. (+ ·0012). 23^h to $23\frac{3}{4}^h$ Sharp wave in Dec. (+ 8′). $3^d\ 23^h$ to $4^d\ 0\frac{1}{2}^h$ Wave in H.F. (+ ·0017). $23\frac{1}{4}^h$ to $23\frac{1}{2}^h$ Decrease in V.F. (− ·0005).

$4^d\ 12^h$ to 13^h Wave in H.F. (− ·0012). $22\frac{3}{4}^h$ to $23\frac{1}{2}^h$ Wave in H.F. (+ ·0011).

$6^d\ 21^h$ to $21\frac{3}{4}^h$ Wave in Dec. (− 5′), steep at commencement.

$7^d\ 12^h$ to $12\frac{1}{2}^h$ Decrease in H.F. (− ·0014). 14^h to 16^h Slow wave in H.F. (+ ·0012).

$8^d\ 3^h$ to 6^h Irregular wave in H.F. (+ ·0029). $4\frac{1}{2}^h$ to 6^h Double wave in Dec. (+ 4′ to − 3′). $4\frac{3}{4}^h$ to $6\frac{1}{4}^h$ Wave in V.F. (− ·0003). 7^h to $7\frac{3}{4}^h$ Decrease in H.F. (− ·0020). $15\frac{1}{4}^h$ to $16\frac{1}{4}^h$ Wave in H.F. (− ·0012) 17^h to $18\frac{1}{2}^h$ Wave in Dec. (− 10′). 17^h to 18^h Double-crested wave in H.F. (− ·0022). 21^h to $22\frac{1}{2}^h$ Wave in H.F. (+ ·0010).

$9^d\ 1\frac{1}{4}^h$ to 2^h Decrease in Dec. (− 4′), followed till $2\frac{3}{4}^h$ by an increase (+ 9′): small wave in H.F. 7^h to $8\frac{3}{4}^h$ Wave in Dec. (+ 5′). 7^h to $9\frac{1}{4}^h$ Wave in H.F. (− ·0016).

$10^d\ 21^h$ to 22^h Wave in Dec. (− 5′), steep at commencement.

$11^d\ 23^h$ to $12^d\ 0\frac{1}{2}^h$ Wave in H.F. (+ ·0022).

$12^d\ 0\frac{1}{2}^h$ to $1\frac{1}{2}^h$ Wave in Dec. (+ 3′). $14\frac{1}{4}^h$ to 15^h Decrease in H.F. (− ·0016). 18^h to $19\frac{3}{4}^h$ Wave in H.F. (− ·0014). $18\frac{1}{4}^h$ to $18\frac{3}{4}^h$ Decrease in Dec. (− 3′).

$14^d\ 1\frac{1}{4}^h$ to $2\frac{1}{2}^h$ Flat-crested wave in Dec. (− 3′).

$15^d\ 13\frac{1}{4}^h$ to 14^h Wave in Dec. (+ 3′).

$18^d\ 6^h$ to $7\frac{1}{4}^h$ Wave in Dec. (+ 4′). $16\frac{1}{4}^h$ to 18^h Irregular double wave in H.F. (+ ·0010 to − ·0012). $18^d\ 19^h$ to $19^d\ 19^h$ See Plate IV.

$19^d\ 19^h$ to $20\frac{1}{2}^h$ Double-crested wave in Dec. (− 3′): two successive waves in H.F. (− ·0010 and − ·0010). $21\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (− 9′), immediately followed till 24^h by a decrease (− 3′). $19^d\ 22^h$ to $20^d\ 0\frac{1}{4}^h$ Irregular double wave in H.F. (+ ·0021 to − ·0013).

$20^d\ 22\frac{1}{2}^h$ to $23\frac{1}{4}^h$ Wave in H.F. (+ ·0010). 23^h to 24^h Wave in Dec. (+ 3′).

$21^d\ 16\frac{3}{4}^h$ to $18\frac{1}{4}^h$ Wave in Dec. (− 7′). 17^h to $17\frac{1}{2}^h$ Sharp wave in H.F. (− ·0012). $23\frac{1}{4}^h$ to 24^h Wave in Dec. (+ 3′).

$22^d\ 19\frac{1}{4}^h$ to $20\frac{1}{4}^h$ Wave in H.F. (+ ·0013).

$23^d\ 0^h$ Sudden increase in Dec. (+ 2′) and H.F. (+ ·0015), followed till $0\frac{3}{4}^h$ by a wave (− ·0010). $0\frac{3}{4}^h$ to 3^h Two successive waves in Dec. (− 4′ and − 5′): in V.F. small. $0\frac{3}{4}^h$ to $4\frac{1}{2}^h$ Three successive waves in H.F. (− ·0010, − ·0018, and − ·0020). 3^h to $5\frac{1}{4}^h$ Irregular double-crested wave in Dec. (+ 6′), followed till $7\frac{1}{2}^h$ by a wave (+ 8′). 3^h to $4\frac{1}{2}^h$ Slow wave in V.F. (− ·0003). $4\frac{3}{4}^h$ to 5^h Decrease in H.F. (− ·0010). 6^h to 7^h Wave in H.F. (+ ·0012). 9^h to $10\frac{1}{4}^h$ Irregular increase in Dec. (+ 7′): irregular wave in H.F. (− ·0014). $11\frac{1}{2}^h$ to $14\frac{1}{2}^h$ Wave in H.F. (− ·0028), with strong superposed fluctuations. 12^h to 15^h Increase in V.F. (+ ·0016), followed till $15\frac{1}{4}^h$ by a sharp increase (+ ·0012). $15\frac{1}{4}^h$ Sudden increase in Dec. (+ 4′) and decrease (− 15′), followed till 16^h by sharp triple wave (+ 4′, − 7′, + 3′). $15\frac{1}{4}^h$ to 16^h Sharp triple wave in H.F. (− ·0020, + ·0025, − ·0018), followed till $16\frac{3}{4}^h$ by three successive sharp waves (− ·0010, − ·0028, and − ·0012). $15\frac{1}{2}^h$ to $17\frac{1}{4}^h$ Irregular double-crested wave in V.F. (+ ·0015), very steep at commencement, with sharp fluctuations between the crests. 16^h to $16\frac{1}{2}^h$ Very sharp successive wave and double wave in Dec. (+ 5′, + 4′ to − 9′), followed till $16\frac{3}{4}^h$ by a decrease (− 3′) and increase (+ 8′). 18^h to $18\frac{1}{2}^h$ Sharp decrease in Dec. (− 11′), followed till 19^h by an increase (+ 8′) and decrease (− 3′). $18\frac{1}{4}^h$ to $18\frac{3}{4}^h$ Sharp wave in H.F. (+ ·0015). $18\frac{1}{4}^h$ to 19^h Decrease in V.F. (− ·0005). 19^h to $19\frac{3}{4}^h$ Very sharp triple wave in Dec. (− 7′, + 6′, − 6′), followed till $20\frac{1}{4}^h$ by a wave (− 5′), steep at commencement. 19^h to $19\frac{3}{4}^h$ Two successive sharp waves in H.F. (+ ·0045 and + ·0025), followed till $20\frac{1}{2}^h$ by a wave (+ ·0012). $19\frac{1}{4}^h$ to $19\frac{1}{2}^h$ Sharp decrease in V.F. (− ·0007).

$24^d\ 10\frac{1}{4}^h$ to $11\frac{1}{4}^h$ Wave in H.F. (− ·0011). 12^h to $13\frac{1}{2}^h$ Wave in H.F. (− ·0012). $14\frac{1}{4}^h$ to 17^h Double wave in Dec. (+ 5′ to − 18′). $14\frac{1}{4}^h$ to $16\frac{1}{4}^h$ Double wave in H.F. (+ ·0010 to − ·0024), the second portion double-crested. $14\frac{1}{2}^h$ to $18\frac{1}{4}^h$ Irregular slow wave in V.F. (+ ·0007). 17^h to 19^h Wave in Dec. (− 6′), with a very steep wave (− 23′) superposed from $17\frac{3}{4}^h$ to 18^h. 17^h to $18\frac{1}{4}^h$ Irregular double wave in H.F. (− ·0020 to + ·0040), the latter portion exceedingly steep. $18\frac{1}{2}^h$ to $19\frac{1}{4}^h$ Wave in H.F. (− ·0012). $19\frac{1}{2}^h$ to $22\frac{3}{4}^h$ Three successive waves in Dec. (− 5′, −5′, and −6′), the first and last irregular, the second steep. $20\frac{1}{4}^h$ to $21\frac{1}{4}^h$ Double-crested wave in H.F. (+ ·0018). $20\frac{1}{2}^h$ to 21^h Decrease in V.F. (− ·0004). 22^h to $23\frac{1}{4}^h$ Wave in H.F. (− ·0014).

1909.

October $25^d\ 12\frac{3}{4}^h$ to $13\frac{1}{4}^h$ Wave in H.F. (− ·0011). $15\frac{1}{2}^h$ to $16\frac{1}{4}^h$ Wave in H.F. (− ·0013). $15\frac{3}{4}^h$ to $16\frac{1}{2}^h$ Wave in Dec. (− 5′). $19\frac{1}{2}^h$ to $20\frac{3}{4}^h$ Wave in Dec. (− 4′). $19\frac{1}{2}^h$ to $19\frac{3}{4}^h$ Increase in H.F. (+ ·0015).

$26^d\ 19\frac{1}{4}^h$ to 21^h Double-crested wave in Dec. (− 3′).

$29^d\ 19\frac{3}{4}^h$ to 21^h Wave in Dec. (− 6′).

$30^d\ 0^h$ to 1^h Flat-crested wave in Dec. (− 3′): Wave in H.F. (+ ·0013).

$31^d\ 21^h$ to November $1^d\ 9\frac{3}{4}^h$ Loss of H.F. register.

November $8^d\ 1\frac{1}{2}^h$ to $2\frac{1}{2}^h$ Wave in Dec. (+ 3′). $6\frac{1}{2}^h$ to $11\frac{1}{2}^h$ Loss of H.F. register. 12^h to 13^h Wave in Dec. (+ 3′). 18^h to $19\frac{1}{4}^h$ Wave in Dec. (− 4′).

$10^d\ 0\frac{1}{4}^h$ to 2^h Flat-crested wave in Dec. (− 3′).

$11^d\ 21^h$ to $22\frac{1}{2}^h$ Wave in Dec. (− 4′). 21^h to $23\frac{3}{4}^h$ Triple-crested wave in H.F. (− ·0010).

$13^d\ 18\frac{3}{4}^h$ to 20^h Wave in Dec. (− 3′).

$14^d\ 21^h$ to 23^h Wave in Dec. (− 5′).

$15^d\ 1\frac{1}{4}^h$ to 2^h Wave in Dec. (+ 5′). $1\frac{1}{2}^h$ to $2\frac{1}{2}^h$ Wave in H.F. (+ ·0010). 5^h to 6^h Wave in H.F. (− ·0011). $18\frac{3}{4}^h$ to 19^h Sharp decrease in Dec. (− 8′). $18\frac{3}{4}^h$ to $20\frac{1}{2}^h$ Double wave in H.F. (− ·0016 to + ·0010), the latter portion flat-crested. $19\frac{1}{4}^h$ to $19\frac{1}{2}^h$ Increase in Dec. (+ 4′): in V.F. small.

$16^d\ 2\frac{1}{4}^h$ to $3\frac{3}{4}^h$ Wave in Dec. (+ 5′). 15^h to $15\frac{1}{2}^h$ Wave in Dec. (− 3′). 16^h to $17\frac{1}{4}^h$ Double wave in H.F. (− ·0011 to + ·0011), the intermediate portion steep. $16\frac{1}{4}^h$ to $17\frac{1}{4}^h$ Steep wave in Dec. (− 8′). 19^h to $20\frac{1}{2}^h$ Flat-crested wave in Dec. (− 10′). $19\frac{1}{4}^h$ to $20\frac{1}{4}^h$ Wave in H.F. (+ ·0025). $21\frac{3}{4}^h$ to 23^h Irregular wave in H.F. (+ ·0020). 22^h to 24^h Double wave in Dec. (+ 4′ to − 3′), the first portion steep.

$17^d\ 19^h$ to $20\frac{3}{4}^h$ Double-crested wave in Dec. (− 3′).

$18^d\ 16\frac{1}{2}^h$ to $17\frac{1}{4}^h$ Wave in H.F. (− ·0010).

$19^d\ 11\frac{3}{4}^h$ to 12^h Sharp decrease in H.F. (− ·0011).

$20^d\ 3\frac{1}{2}^h$ to 5^h Wave in Dec. (+ 4′). 13^h to $14\frac{1}{2}^h$ Irregular wave in H.F. (− ·0016). $13\frac{1}{4}^h$ to $14\frac{1}{4}^h$ Wave in Dec. (+ 5′). $15\frac{1}{4}^h$ to 18^h Wave in Dec. (+ 8′), with superposed small waves. 16^h to $17\frac{1}{2}^h$ Irregular triple-crested wave in H.F. (− ·0017). $18\frac{3}{4}^h$ to $19\frac{3}{4}^h$ Double-crested wave in Dec. (− 3′). 20^h to $21\frac{3}{4}^h$ Irregular double-crested wave in H.F. (− ·0014), followed till $23\frac{1}{4}^h$ by a double wave (− ·0010 to + ·0011). 21^h to $22\frac{1}{2}^h$ Irregular double wave in Dec. (− 6′ to + 4′), followed by small waves until $21^d\ 4^h$.

$21^d\ 21^h$ to 23^h Three successive waves in H.F. (+ ·0010, + ·0012, and + ·0012): in Dec. small.

$22^d\ 16\frac{3}{4}^h$ to $18\frac{1}{4}^h$ Double-crested wave in Dec. (− 5′). 17^h to 19^h Two successive waves in H.F. (+ ·0011 and + ·0010), the second flat-crested. $19\frac{1}{4}^h$ to $20\frac{1}{4}^h$ Wave in Dec. (− 8′). $19\frac{1}{2}^h$ to $20\frac{1}{4}^h$ Wave in H.F. (+ ·0022).

$23^d\ 23\frac{1}{2}^h$ to 24^h Wave in H.F. (+ ·0010): small double wave in Dec.

$26^d\ 21^h$ to 23^h Wave in Dec. (− 5′).

$27^d\ 2\frac{3}{4}^h$ to 4^h Irregular double-crested wave in Dec. (+ 4′). $6\frac{1}{2}^h$ to $7\frac{1}{4}^h$ Decrease in H.F. (− ·0027). $17\frac{3}{4}^h$ to 19^h Irregular waves in Dec. (− 6′) and H.F. (+ ·0017).

$30^d\ 1\frac{1}{2}^h$ to 5^h Irregular triple-crested wave in Dec. (− 6), followed till 6^h by a wave (− 4′). $6\frac{1}{2}^h$ to $7\frac{1}{2}^h$ Wave in Dec. (− 4′): decrease in H.F. (− ·0020). $8\frac{1}{4}^h$ Sudden decrease in H.F. (− ·0010), followed till $8\frac{3}{4}^h$ by slower decrease (− ·0013). $8\frac{3}{4}^h$ to 10^h Two successive waves in Dec. (− 4′ and − 4′). $9\frac{1}{4}^h$ to $11\frac{1}{2}^h$ Irregular quadruple-crested wave in H.F. (− ·0025). 11^h to 12^h Wave in Dec. (− 4′). 12^h to 13^h Flat-crested wave in Dec. (− 5′): double-crested wave in H.F. (− ·0015). $13\frac{3}{4}^h$ to $14\frac{3}{4}^h$ Double wave in Dec. (+ 3′ to − 4′). $14\frac{3}{4}^h$ to $15\frac{3}{4}^h$ Irregular wave in H.F. (− ·0011). $22\frac{3}{4}^h$ to 24^h Very sharp wave in H.F. (+ ·0060). November $30^d\ 23^h$ to December $1^d\ 0\frac{3}{4}^h$ Double wave in Dec. (+ 10′ to − 7′), the first portion very steep. November $30^d\ 23\frac{1}{4}^h$ to December $1^d\ 0\frac{3}{4}^h$ Wave in V.F. (− ·0006).

December $1^d\ 2^h$ to $2\frac{1}{2}^h$ Increase in Dec. (+ 5′). $8\frac{1}{2}^h$ Very sharp waves in Dec. (− 2′) and H.F. (− ·0013). $14\frac{3}{4}^h$ to 16^h Wave in H.F. (− ·0015). $15\frac{1}{4}^h$ to $15\frac{1}{2}^h$ Decrease in Dec. (− 4′). 17^h to $20\frac{3}{4}^h$ Very irregular wave in Dec. (− 8′). $18\frac{1}{4}^h$ to $18\frac{3}{4}^h$ Increase in H.F. (+ ·0014). $21\frac{3}{4}^h$ to $23\frac{1}{4}^h$ Triple wave in H.F. (+ ·0014, − ·0011, + ·0015), preceded and followed by small waves. 22^h to $22\frac{1}{2}^h$ Decrease in Dec. (− 8′) and V.F. (− ·0003). $22\frac{3}{4}^h$ to 24^h Double wave in Dec. (+ 12′ to − 7′), the first portion very steep. 23^h to $23\frac{1}{4}^h$ Decrease in V.F. (− ·0004).

$2^d\ 0\frac{1}{2}^h$ to $2\frac{3}{4}^h$ Irregular increase in Dec. (+ 15′). $1\frac{3}{4}^h$ to $2\frac{3}{4}^h$ Sharp decrease in H.F. (− ·0012), followed by slower irregular increase (+ ·0027). 8^h to 10^h Wave in Dec. (+ 5′). 8^h to 9^h Wave in H.F. (− ·0013). $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Wave in H.F. (+ ·0010).

1909.

December 4^d 15^h to $16\frac{1}{2}^h$ Double-crested wave in H.F. (− ·0011). $15\frac{1}{2}^h$ to $16\frac{3}{4}^h$ Flat-crested wave in Dec. (− 3′).

9^d 23^h to 24^h Wave in Dec. (− 3′).

13^d $15\frac{1}{2}^h$ to 16^h Wave in Dec. (+ 3′), continued till $16\frac{3}{4}^h$ by a decrease (− 13′) and increase (+ 8′). $15\frac{1}{2}^h$ to 16^h Sharp decrease in H.F. (− ·0045). 16^h to $16\frac{1}{2}^h$ Double-crested wave in H.F. (+ ·0010), followed till $16\frac{3}{4}^h$ by a sharp increase (+ ·0019). 16^h to $16\frac{1}{2}^h$ Increase in V.F. (+ ·0006). $17\frac{3}{4}^h$ to $18\frac{1}{2}^h$ Increase in H.F. (+ ·0023).

14^d $0\frac{1}{2}^h$ to 1^h Decrease in Dec. (− 3′). $1\frac{1}{2}^h$ to 4^h Two successive waves in Dec. (+ 9′ and + 5′). 2^h to 3^h Wave in H.F. (+ ·0024), followed till $3\frac{1}{2}^h$ by an increase (+ ·0015). 2^h to $2\frac{3}{4}^h$ Decrease in V.F. (− 0004). $6\frac{3}{4}^h$ to 9^h Wave in H.F. (− ·0015) followed till $9\frac{3}{4}^h$ by a decrease (− ·0017). $13\frac{1}{2}^h$ to $14\frac{1}{4}^h$ Wave in Dec. (+ 3′). $13\frac{3}{4}^h$ to $15\frac{1}{2}^h$ Irregular triple-crested wave in H.F. (− ·0012). 16^h to 17^h Two successive waves in H.F. (− ·0012 and − ·0010), the first sharp. $16\frac{1}{4}^h$ to 17^h Sharp wave in Dec. (+ 5′). $17\frac{1}{2}^h$ to 18^h Waves in Dec. (+ 3′) and H.F. (+ ·0010). 18^h to $19\frac{1}{2}^h$ Double wave in Dec. (+ 3′ to − 5′). $18\frac{1}{4}^h$ to $20\frac{1}{4}^h$ Two successive double waves in H.F. (− ·0010 to + ·0010 and + ·0020 to − ·0015). $19\frac{1}{2}^h$ to 21^h Double wave in Dec. (+ 9′ to − 9′), the second portion irregular and double-crested. $20\frac{1}{2}^h$ to 21^h Sharp wave in H.F. (+ ·0028). 21^h to $21\frac{1}{2}^h$ Sharp decrease in Dec. (− 18′): sharp increase in H.F. (+ ·0050). $21\frac{1}{2}^h$ to $22\frac{1}{4}^h$ Sharp increase in Dec. (+ 5′), followed by a wave (− 4′). $21\frac{1}{2}^h$ to 23^h Very irregular wave in H.F. (− ·0036), followed till 24^h by an irregular decrease (− ·0022). $22\frac{3}{4}^h$ to $23\frac{1}{4}^h$ Sharp wave in Dec. (+ 7′). 23^h to $23\frac{1}{4}^h$ Sharp decrease in V.F. (− ·0005).

15^d 0^h to $0\frac{1}{2}^h$ Increase in Dec. (+ 4′). $2\frac{1}{2}^h$ to $3\frac{1}{4}^h$ Increase in Dec. (+ 9′). $22\frac{3}{4}^h$ to $23\frac{1}{4}^h$ Wave in Dec. (− 3′).

16^d 3^h to 5^h Double-crested wave in Dec. (+ 6′). $19\frac{3}{4}^h$ to 21^h Wave in Dec. (− 6′): in H.F. small.

17^d 10^h to $11\frac{1}{2}^h$ Flat-crested wave in H.F. (− ·0012). 13^h to $14\frac{1}{4}^h$ wave in H.F. (− ·0010). 20^h to $21\frac{3}{4}^h$ Irregular double-crested wave in Dec. (− 7′): double wave in H.F. (− ·0012 to + ·0017). $20\frac{1}{4}^h$ to 21^h Sharp wave in V.F. (+ ·0003).

18^d 17^h to $18\frac{3}{4}^h$ Wave in H.F. (− ·0012), followed till $20\frac{1}{4}^h$ by two successive sharp waves (+ ·0016 and + ·0019). $18\frac{3}{4}^h$ to 21^h Irregular wave in Dec. (− 5′) with a sharp wave (− 7′) superposed from $19\frac{1}{2}^h$ to $19\frac{3}{4}^h$. $22\frac{1}{4}^h$ to $23\frac{1}{4}^h$ Irregular double-crested waves in Dec. (+ 3′) and H.F. (+ ·0010).

19^d 3^h to 5^h Two successive waves in Dec. (+ 3′ and + 5′).

20^d $0\frac{1}{2}^h$ to $9\frac{1}{2}^h$ Loss of Dec. and H.F. registers.

21^d 5^h to $10\frac{3}{4}^h$ Loss of Dec. and H.F. registers. 21^d 11^h to 22^d $15\frac{1}{2}^h$ Loss of Dec. and H.F. registers.

22^d $0\frac{1}{2}^h$ to 3^h Irregular wave in V.F. (− ·0004). 18^h to 19^h Double-crested wave in Dec. (− 5′). $18\frac{1}{4}^h$ to $19\frac{1}{4}^h$ Wave in H.F. (+ ·0011).

23^d $18\frac{1}{2}^h$ to 20^h Waves in Dec. (− 7′) and H.F. (+ ·0014).

25^d $2\frac{3}{4}^h$ to 4^h Wave in Dec. (+ 4′).

26^d $22\frac{3}{4}^h$ to $23\frac{1}{2}^h$ Wave in H.F. (+ ·0016). 26^d $23\frac{1}{4}^h$ to 27^d $0\frac{1}{4}^h$ Wave in Dec. (− 3′).

28^d $1\frac{1}{2}^h$ to $2\frac{1}{2}^h$ Wave in Dec. (+ 3′).

29^d 20^h to $21\frac{1}{2}^h$ Double-crested wave in Dec. (− 4′).

30^d $20\frac{3}{4}^h$ to $22\frac{3}{4}^h$ Flat-crested wave in H.F. (− ·0010). 21^h to $22\frac{1}{4}^h$ Wave in Dec. (− 3′).

31^d $10\frac{1}{2}^h$ to 18^h Loss of Dec. and H.F. registers. $14\frac{1}{4}^h$ to $15\frac{3}{4}^h$ Loss of V.F. register. $17\frac{3}{4}^h$ to 19^h Loss of V.F. register. 23^h to $23\frac{3}{4}^h$ Increase in H.F. (+ ·0024). $23\frac{1}{4}^h$ to $23\frac{3}{4}^h$ Wave in Dec. (+ 3′). $23\frac{1}{2}^h$ to 24^h Decrease in V.F. (− ·0004).

EXPLANATION OF THE PLATES.

The magnetic motions figured on the Plates are :—

(1.) Those for days of great disturbance—May $14^d\ 4^h$ to $15^d\ 4^h$, September $25^d\ 7^h$ to $26^d\ 7^h$.

(2.) Those for days of lesser disturbance—January $3^d\ 5^h$ to $4^d\ 5^h$, $29^d\ 14^h$ to $30^d\ 14^h$, $30^d\ 14^h$ to $31^d\ 14^h$, May $18^d\ 5^h$ to $19^d\ 5^h$, September 30, October $18^d\ 19^h$ to $19^d\ 19^h$.

(3.) Those for four quiet days—February 19, May 9, August 6, November 5—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 $0^{in.}80 = 20{\cdot}2^{mm.}$ in the declination curve, by $0^{in.}74 = 18{\cdot}8^{mm.}$ in the horizontal force curve, and by $0^{in.}61 = 15{\cdot}5^{mm.}$ 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.

Plate I.

Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1909.

JANUARY 3-4. 5h 6h 7h 8h 9h 10h 11h Noon 13h 14h 15h 16h 17h 18h 19h 20h 21h 22h 23h Midn. 1h 2h 3h 4h 5h

Declination. 15°. 0′ 15°. 10′ 15°. 20′ 15°. 30′ 15°. 40′ 15°. 50′ 16°. 0′ 16°. 10′

Hor. Force. 400 500 600 700 800 900 1000 1100

Vert. Force. 750 850 950 1050

D H V

66·6 66·4 66·2 66·2 66·0 65·9 66·0 66·1 66·2 66·3 66·5 66·8 67·1 67·3 67·4 67·1 67·8 67·8 67·8 67·8 67·8 67·9 67·7 67·7

67·2 67·0 66·9 66·8 66·6 66·5 66·6 66·7 66·7 66·8 67·0 67·2 67·4 67·6 67·7 67·9 68·0 68·0 68·0 68·1 68·1 68·0 68·0

JANUARY 29-30. 14h 15h 16h 17h 18h 19h 20h 21h 22h 23h Midn. 1h 2h 3h 4h 5h 6h 7h 8h 9h 10h 11h Noon 13h 14h

Declination. 15°.30′ 15°.35′ 15°.40′ 15°.45′ 15°.50′ 15°.55′

Hor. Force. 600 800 1000 1200

V. Force. 600 650 700 750

D H V

62·3 62·9 63·4 63·5 63·7 63·7 63·8 63·9 63·8 63·9 63·7 63·7 63·5 63·5 63·4 63·3 63·1 63·1 63·0 62·9 62·8 62·9 62·9 62·9

64·7 64·7 65·3 65·4 65·5 65·4 65·4 65·3 65·3 65·3 65·2 65·1 65·0 64·9 64·9 64·8 64·6 64·6 64·5 64·4 64·2 64·2 64·2 64·2

JANUARY 30-31. 14h 15h 16h 17h 18h 19h 20h 21h 22h 23h Midn. 1h 2h 3h 4h 5h 6h 7h 8h 9h 10h 11h Noon 13h 14h

Declination. 15°.20′ 15°.30′ 15°.40′ 15°.50′ 16°. 0′

Horizontal Force. 300 500 700 900 1100 1300 1500

Vertical Force. 400 300 600 700

D H V

63·2 63·6 63·8 63·8 63·8 63·8 63·6 63·7 63·2 63·2 63·1 63·0 62·9 62·8 62·7 62·7 62·5 62·5 62·4 62·3 62·2 62·1

64·5 64·9 65·1 65·1 65·1 65·0 64·8 64·7 64·5 64·4 64·3 64·2 64·1 64·0 64·0 63·8 63·7 63·6 63·5 63·3 63·2 63·2 63·5 63·4

4324

Weller & Graham, Ltd. Litho. London.

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

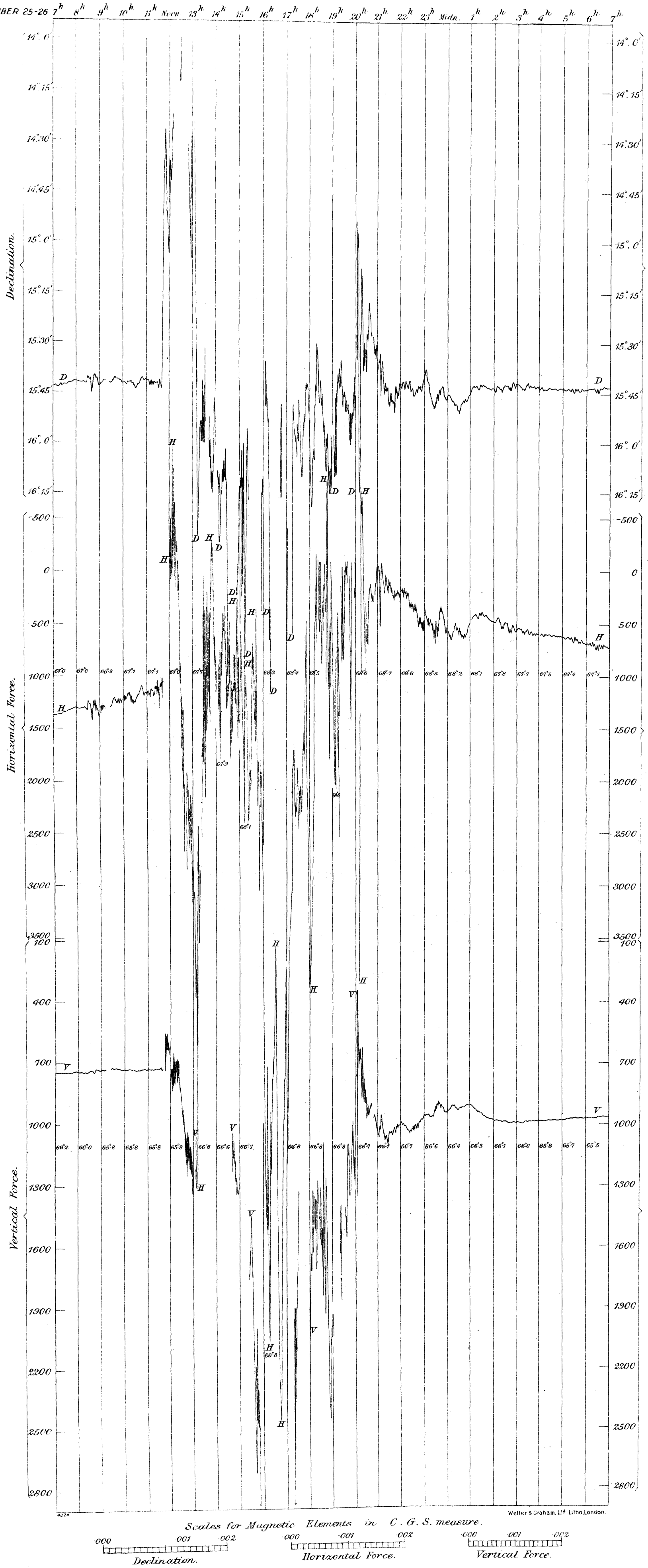
·000 ·001 ·002 — *Declination.*

·000 ·001 ·002 — *Horizontal Force.*

·000 ·001 ·002 — *Vertical Force.*

Plate III.

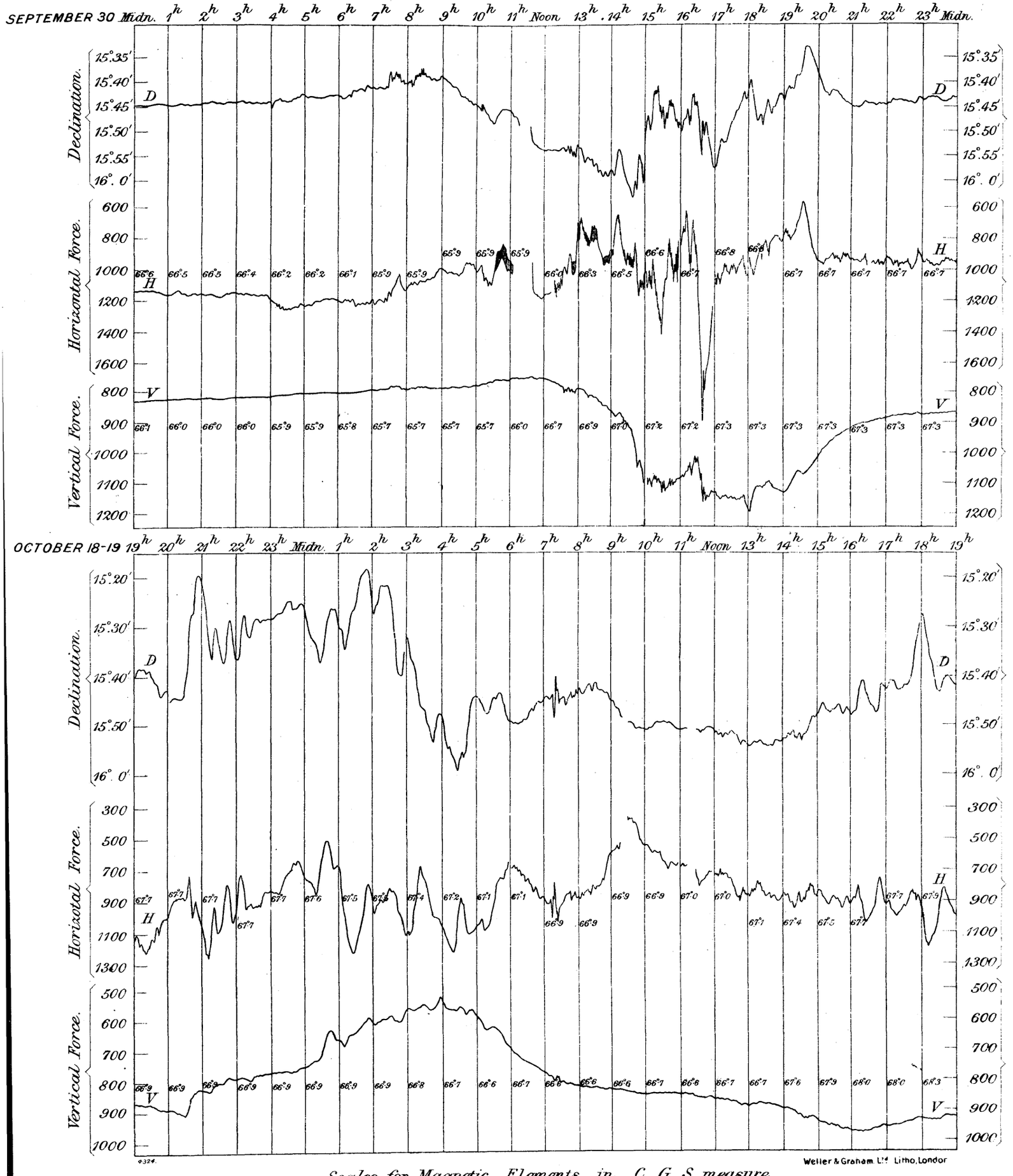
Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1909.



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

Plate IV.

Magnetic Disturbances recorded at the Royal Observatory Greenwich, 1909.



Weller & Graham Ltd Litho, London

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

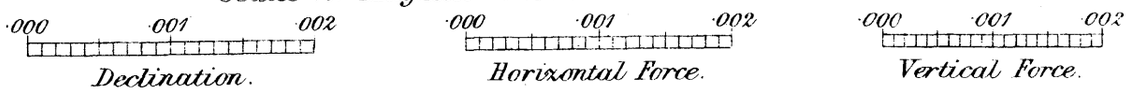
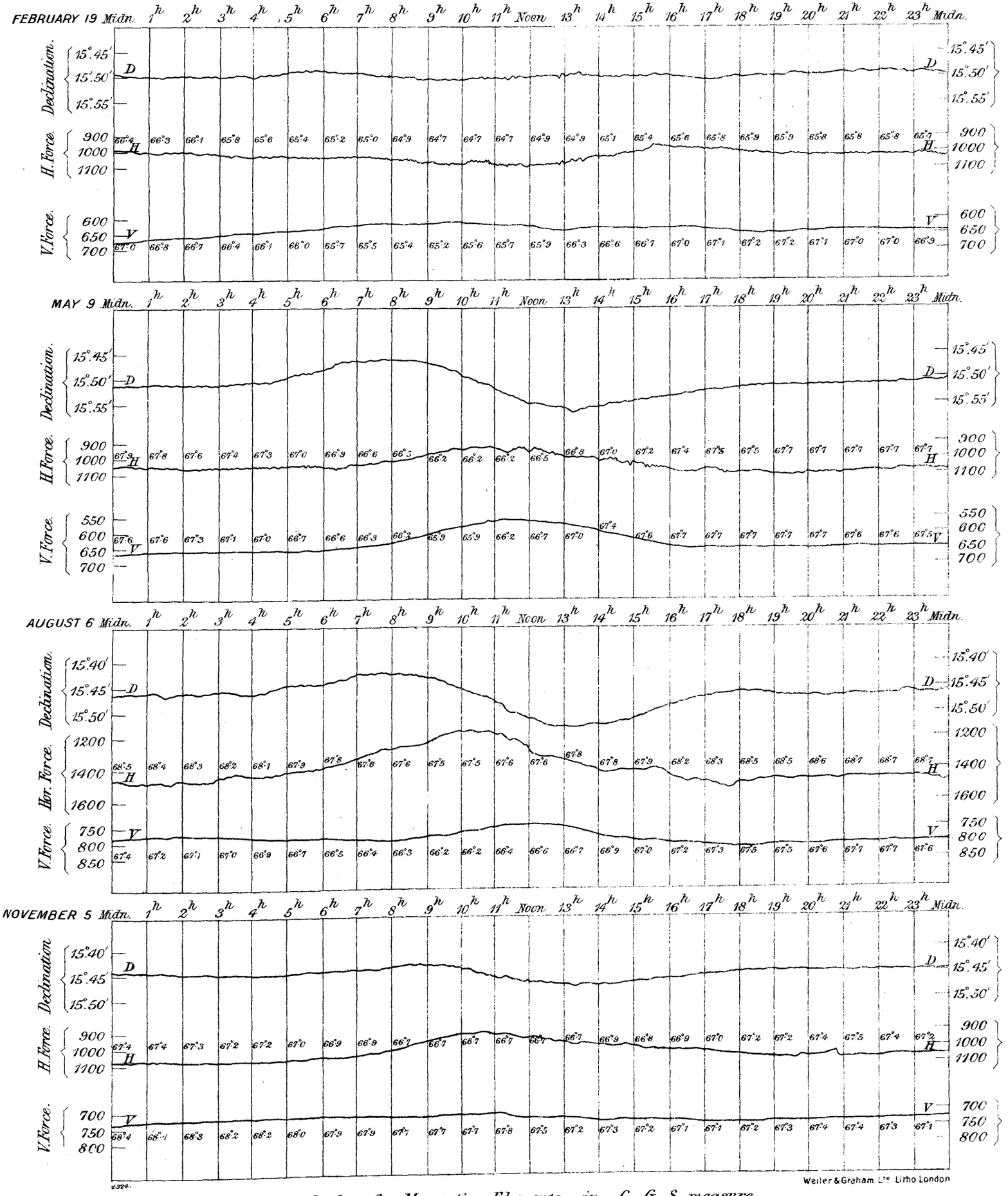


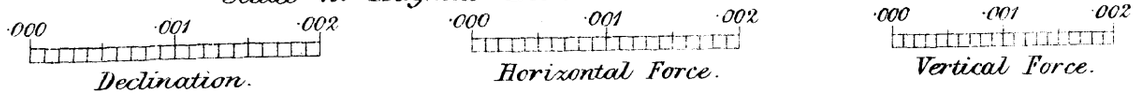
Plate V.

Types of Magnetic Diurnal Variations at four seasons of the year recorded at the Royal Observatory Greenwich 1909.



Weiler & Graham. Lts Litho London

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



ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

METEOROLOGICAL OBSERVATIONS.

1909.

MONTH and DAY, 1909.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Jan. 1	...	30·441	47·2	42·0	5·2	44·6	+ 6·0	44·0	43·3	1·3	3·2	0·0	95	49·8	39·4	0·002	0·0	wP
2	...	30·487	48·2	44·6	3·6	46·7	+ 8·3	45·5	44·2	2·5	4·4	1·5	92	49·0	42·0	0·000	0·0	wwP : wP : wP
3	...	30·473	47·4	43·3	4·1	45·6	+ 7·3	45·3	45·0	0·6	2·5	0·4	98	49·6	38·9	0·007	0·0	wP
4	...	30·525	46·4	41·5	4·9	43·9	+ 5·6	43·3	42·6	1·3	5·1	0·7	95	48·2	38·0	0·000	1·0	wP
5	...	30·439	42·0	32·5	9·5	37·4	− 0·8	35·8	33·6	3·8	7·3	0·5	87	49·0	20·7	0·000	0·0	wP : mP : mP
6	Greatest Declination N. : Full	30·274	44·5	34·9	9·6	40·3	+ 2·2	39·3	38·0	2·3	4·0	0·5	92	52·0	29·0	0·011	0·0	wP : wP, sN : wP
7	...	30·048	45·3	36·5	8·8	41·1	+ 3·1	38·7	35·7	5·4	11·0	0·9	81	64·9	30·0	0·097	0·7	wP : wP : mP, vN
8	...	29·688	41·4	35·9	5·5	38·8	+ 0·9	35·7	31·6	7·2	13·1	3·4	76	52·1	29·0	0·006	2·3	wP : mP : mP
9	...	29·990	40·8	34·6	6·2	37·6	− 0·3	35·2	31·9	5·7	10·4	0·9	80	54·2	27·0	0·003	0·0	mP
10	...	29·753	48·3	37·1	11·2	43·3	+ 5·4	42·4	41·3	2·0	3·8	0·5	93	55·5	31·4	0·181	0·0	wP : wP : wwP, wwN
11	Apogee	29·458	50·4	43·4	7·0	47·2	+ 9·3	45·2	43·0	4·2	9·2	0·8	86	71·9	36·7	0·010	1·3	wwP : wP
12	...	29·558	45·3	35·2	10·1	41·4	+ 3·5	38·0	33·8	7·6	12·1	3·1	75	57·3	29·4	0·000	3·7	wP : mP : sP
13	In Equator	29·347	47·0	34·1	12·9	40·1	+ 2·1	38·1	35·5	4·6	8·1	1·0	84	46·4	29·7	0·033	0·5	vP : wN, wP : wP, wN
14	Last Quarter	29·191	48·9	39·5	9·4	44·1	+ 6·1	40·7	36·7	7·4	12·4	1·9	75	65·7	33·6	0·010	2·5	wP : mP : wP
15	...	29·170	50·4	38·1	12·3	42·7	+ 4·6	39·3	35·2	7·5	15·2	2·5	75	66·8	30·3	0·260	4·5	wwP, wwN : mP : vP, vN
16	...	29·468	41·2	36·0	5·2	38·6	+ 0·3	35·5	31·4	7·2	11·3	2·1	75	69·0	29·4	0·000	4·5	wP : mP : mP
17	...	29·959	49·7	35·0	14·7	43·0	+ 4·5	40·4	37·3	5·7	9·0	2·9	80	68·0	28·2	0·002	5·2	mP : wP
18	...	29·829	49·0	45·1	3·9	46·5	+ 7·9	43·6	40·3	6·2	9·2	4·8	80	69·0	40·1	0·000	6·8	wP
19	...	29·915	46·9	32·6	14·3	41·8	+ 3·1	39·6	36·9	4·9	8·4	2·5	84	51·2	21·5	0·106	0·0	wP, mN : wN, mP : mP
20	Greatest Declination S.	30·255	41·0	29·0	12·0	35·4	− 3·4	34·0	31·8	3·6	6·0	0·0	87	56·8	19·3	0·006*	0·0	mP
21	...	30·301	41·8	32·0	9·8	36·3	− 2·5	35·1	33·4	2·9	7·1	0·3	89	59·0	25·0	0·000	0·0	mP
22	New	30·150	37·4	32·9	4·5	35·0	− 3·8	33·2	30·3	4·7	7·3	2·7	82	43·7	31·5	0·000	2·0	mP
23	Perigee	29·978	34·1	31·8	2·3	32·8	− 6·1	30·2	24·9	7·9	10·9	3·3	71	40·0	29·0	0·000	0·0	mP
24	...	29·993	33·9	25·1	8·8	32·1	− 6·8	30·1	25·6	6·5	10·2	3·8	75	58·0	19·8	0·000	0·0	wP : mP : mP
25	...	30·190	40·8	25·2	15·6	32·8	− 6·3	31·9	30·1	2·7	6·4	0·0	90	53·0	14·9	0·001*	0·0	mP
26	In Equator	30·316	40·6	29·1	11·5	33·9	− 5·4	33·0	31·4	2·5	5·8	0·0	90	69·0	17·3	0·000	0·0	mP
27	...	30·326	30·0	26·2	3·8	28·8	−10·7	28·6	27·9	0·9	1·3	0·0	96	33·8	15·5	0·000	0·0	sP : sP : ssP
28	First Quarter	30·221	30·2	20·8	9·4	26·7	−12·9	26·6	26·1	0·6	1·6	0·0	98	39·2	21·7	0·006*	0·0	ssP
29	...	30·030	45·5	21·0	24·5	33·6	− 6·1	32·9	31·6	2·0	4·4	0·0	92	62·6	22·0	0·012	0·0	ssP : mP : wP
30	...	29·917	38·4	30·0	8·4	35·3	− 4·4	31·9	26·6	8·7	14·5	1·7	69	67·0	22·2	0·000	0·0	wP : mP : sP
31	...	29·869	38·0	29·2	8·8	34·3	− 5·4	32·3	28·9	5·4	10·1	1·5	80	51·0	21·7	0·013	0·0	mP : mP : mP, wN
Means	...	29·986	43·0	34·0	9·0	38·8	+ 0·2	36·9	34·4	4·4	7·9	1·4	84·6	55·6	27·9	Sum 0·766	1·1	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

* Rainfall (Column 16). Amounts entered on January 20, 25, and 28 are derived from frost or fog.

The mean reading of the *Barometer* for the month was 29in·986, being 0in·192 *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 50°·4 on January 11 and 15; the lowest in the month was 20°·8 on January 28; and the range was 29°·6.
The mean of all the highest daily readings in the month was 43°·0, being 0°·1 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 34°·0, being 0°·3 *higher* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 9°·0, being 0°·4 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 38°·8, being 0°·2 *higher* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Jan. 1	0·0	7·9	W	W : WSW	0·5	0·01	196	10, f : 10, f : 10, slt.-f	9, s, n : 10, slt.-sh : 9
2	0·0	7·9	W	W	0·5	0·01	219	9 : 10, cu.-s	10 : 10
3	0·0	7·9	W : WNW	Calm : W : WSW	0·4	0·00	124	10 : 10, m.-r : 10, m.-r, glm	10, slt.-f, glm : 10, slt. f
4	0·0	7·9	WSW : SSW : SSE	Calm : SW : S	0·0	0·00	86	10 : 10, slt.-f : 10, slt.-f	10 : 10
5	0·1	7·9	S : SSE	SW : W	0·7	0·00	147	p.-cl : 0, ho.-fr : p.-cl, ci, s, slt.-f	10, s : 10
6	0·6	8·0	WSW	WNW : W	1·3	0·02	207	9 : 10 : 10, s, m.-r	9, cu : 10, slt.-f : p.-cl, slt.-sh, slt.-f
7	2·5	8·0	WNW : WSW : W	WNW : W	10·1	0·52	469	p.-cl : 9 : 5, cu	7, cu, cu.-s, so.-ha : 9, sh.-r : 9, hy.-sh, hl, l, t, sq
8	4·1	8·0	NNW : NW	NNW : N : NNE	13·8	1·23	533	p.-cl, r : 1, ho.-fr : p.-cl, cu, n, w	p.-cl, cu, n, w : 9, sn, sl, st.-w : p.-cl, sc, w
9	0·8	8·1	N	N : NW : W	3·5	0·21	286	ho.-fr. : 9 : 9, cu	9, cu, s : 10 : 10, slt.-r
10	0·1	8·1	WSW : W	W : WSW : SW	2·0	0·09	317	p.-cl : 10, slt.-r : 10, s	9 : 10 : 10, r
11	2·4	8·1	W	WNW : W	6·2	0·38	420	10, sh.-r : 9, sh.-r : 9, cu, sc	5, cu.-s, w : p.-cl : 1, d
12	4·1	8·2	W : WNW	NW : WNW : W	6·1	0·72	478	1, w : 1, w : 8, cu.-s, w	6, cu, n, w : 5 : th.-cl
13	0·0	8·2	Variable : E : SE	W : WSW	11·5	0·54	360	10 : 10, th.-r : 10, th.-r	10, oc.-m.-r : 10, fq.-r, st.-w : p.-cl, w
14	4·0	8·2	WNW : W	WSW : SW	9·5	1·04	629	p.-cl, w : th.-cl, w : 4, ci.-s, so.-ha, w	5, ci, s, w : p.-cl, w : 10, oc.-r, w
15	6·6	8·3	WSW : W : NW	W : SW	10·0	0·80	511	10, oc.-r, st.-w : p.-cl, w : 2, ci	1, li.-cl : 3, cu : p.-cl, l, t, sh.-r
16	5·6	8·3	WSW : W	W	10·2	0·86	585	p.-cl, l, w : p.-cl, w : 4, ci, th.-cl, w	2, w : p.-cl : 0, d
17	2·3	8·3	W : WSW : SW	WSW	5·5	0·51	452	0, ho.-fr : 1, li.-cl : 6, ci, cu	p.-cl : p.-cl : 10, oc.-th.-r, w
18	3·3	8·4	SW	SW	8·7	1·09	586	9, w : 9, cu.-s, w	p.-cl, w : 9 : p.-cl
19	0·1	8·4	SW : N : NNE	N : NNW : WNW	2·5	0·16	256	p.-cl : 10, fq.-r, glm : 10, r	9, cu.-s : p.-cl, d : 1, h, ho.-fr
20	4·5	8·5	W : NNE	NNE : NE : ENE	1·2	0·04	184	p.-cl, ho.-fr : 1, th.-cl	1, li-cl : 0 : f, ho.-fr
21	0·7	8·5	NE : NNE	ENE : NE	1·0	0·05	190	slt.-f : slt.-f : 9	8, cu : 10 : 10
22	0·0	8·6	ENE : NE	E : ENE	3·9	0·30	327	10 : 10	10, s : 10 : 10, m.-r, sl
23	0·0	8·6	ENE : NE	E : ENE : NE	2·9	0·19	300	10 : 10	9 : 10
24	4·0	8·7	ENE : SSE : ESE	ESE : ENE	0·2	0·00	119	10 : p.-cl, ho.-fr : p.-cl, cu.-s	p.-cl : 10 : 10, slt.-f, ho.-fr
25	5·5	8·7	Calm : ENE	ENE : NE	0·0	0·00	115	p.-cl, h, ho.-fr : slt.-f, ho.-fr : 0	0 : 0, slt.-f, ho.-fr
26	3·8	8·8	NE : ENE	NE : E : ENE	0·5	0·02	164	p.-cl, slt.-f, ho.-fr : 10 : 9	3, li.-cl : 0, slt.-m : 0, f, ho.-fr
27	0·0	8·8	Calm	Calm	0·0	0·00	54	tk.-f, ho.-fr : tk.-f, ho.-fr : f	f : tk.-f : f, ho.-fr
28	0·0	8·9	Calm	Calm	0·0	0·00	36	f, ho.-fr : f	tk.-f : tk.-f, ho.-fr
29	1·0	8·9	Calm : SW	WSW : W : WNW	1·0	0·02	171	tk.-f, ho.-fr : f, ho.-fr : 10, s, f, so.-ha	p.-cl, so.-ha : 10, m, sh.-r : m, f
30	4·6	9·0	W : NW : NNE	NNE : N : NNW	8·5	0·49	402	9 : 9 : p.-cl, sn, w	1, li.-cl : li.-cl : h, lu.-ha, ho.-fr
31	0·0	9·0	WNW : NW : NNW	NNW : WNW	1·2	0·08	276	p.-cl, h, ho.-fr : p.-cl, th.-cl	p.-cl : 10, oc.-slt.-r : 10, slt.-r
Means	2 0	8·4	...	...	...	0·30	297		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 36°·9, being 0°·3 *lower* than
The mean *Temperature of the Dew Point* for the month was 34°·4, being 0°·9 *lower* than
The mean *Degree of Humidity* for the month was 84·6, being 3·4 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·199, being 0in·007 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·3, being 0gr·1 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 557 grains, being 3 grains *greater* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7·4.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·234. The maximum daily amount of *Sunshine* was 6·6 hours on January 15.

The highest reading of the *Solar Radiation Thermometer* was 71°·9 on January 11; and the lowest reading of the *Terrestrial Radiation Thermometer* was 14°·9 on January 25.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 0·8; for the 6 hours ending 15h was 0·2; and for the 6 hours ending 21h was 0·1.

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 5, S. 4, and W. 14. Three days were calm.

The *Greatest Pressure of the Wind* in the month was 13·8 lbs. on the square foot on January 8. The mean daily *Horizontal Movement of the Air* for the month was 297 miles; the greatest daily value was 629 miles on January 14; and the least daily value was 36 miles on January 28.

Rain (0in·005 or over) fell on 12 days in the month, amounting to 0in·766, as measured by gauge No. 6 partly sunk below the ground; being 1in·115 *less* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Feb. 1	...	29·791	43·9	35·9	8·0	39·5	− 0·1	37·3	34·4	5·1	8·1	1·0	82	56·9	28·3	0·031	0·0	wP, vN : wP : mP
2	Greatest Declination N.	29·953	46·5	31·0	15·5	38·9	− 0·6	36·7	33·7	5·2	7·7	3·2	83	61·7	23·4	0·000	0·8	mP
3	...	29·695	54·2	46·4	7·8	50·8	+ 11·3	47·4	43·8	7·0	9·4	4·0	78	70·5	44·0	0·000	2·2	wwP : wP : wP
4	...	29·686	56·1	49·5	6·6	52·2	+ 12·7	48·5	44·7	7·5	11·0	5·8	76	76·5	44·3	0·000	1·5	wwP : wP : wP
5	Full	29·659	49·5	38·8	10·7	46·1	+ 6·5	42·8	39·1	7·0	13·4	4·4	77	64·5	30·0	0·023	4·5	wwP : wN, wP : mP
6	...	29·982	45·9	29·2	16·7	38·2	− 1·4	35·9	32·7	5·5	11·4	2·4	81	77·1	17·4	0·000	0·0	mP
7	...	29·998	44·1	26·1	18·0	34·1	− 5·4	32·6	30·0	4·1	11·9	0·0	84	74·8	15·1	0·005*	0·5	wP
8	Apogee	30·055	40·0	28·7	11·3	33·4	− 5·9	31·7	28·5	4·9	9·9	0·8	82	69·0	17·0	0·001*	2·2	wP : wP : mP
9	In Equator	29·653	40·8	30·3	10·5	36·6	− 2·5	34·5	31·5	5·1	8·7	1·6	82	58·2	19·0	0·066	2·3	mP : mP, vN : mP
10	...	29·233	40·8	33·8	7·0	36·6	− 2·3	35·3	33·5	3·1	6·9	1·2	89	53·0	29·4	0·140	0·0	wP, vN : mP : mP
11	...	29·556	40·4	33·2	7·2	36·0	− 2·8	34·7	32·8	3·2	7·6	1·4	88	60·1	28·4	0·072	0·5	wP, ssN : mP : wP
12	...	29·964	36·8	29·5	7·3	32·5	− 6·3	29·7	23·7	8·8	12·5	4·2	69	79·8	23·2	0·000	1·5	wP : mP : mP
13	Last Quarter	30·286	37·3	28·3	9·0	33·2	− 5·8	30·8	26·1	7·1	9·0	2·5	75	59·8	21·5	0·000	0·0	mP : sP : sP
14	...	30·287	40·9	25·0	15·9	35·2	− 4·1	33·2	30·0	5·2	8·1	1·6	81	57·5	13·6	0·000	0·0	sP : mP : mP
15	...	30·050	48·8	37·6	11·2	42·5	+ 3·1	39·8	36·5	6·0	12·6	1·4	80	82·8	29·2	0·007	0·0	wP : mP : sP
16	...	30·011	41·5	32·2	9·3	37·3	− 2·2	33·7	28·7	8·6	13·3	3·5	71	67·8	23·5	0·000	3·0	mP : sP : sP
17	Greatest Declination S.	29·946	45·5	28·8	16·7	36·1	− 3·5	33·4	29·4	6·7	13·4	3·5	77	70·0	16·6	0·000	0·0	sP
18	...	29·882	46·4	28·3	18·1	37·1	− 2·4	34·3	30·3	6·8	11·9	3·2	77	87·4	16·3	0·000	6·0	mP
19	...	29·994	47·4	27·1	20·3	35·3	− 4·2	32·8	28·9	6·4	17·2	1·6	77	90·2	11·9	0·000	5·0	mP : sP : sP
20	New : Perigee	30·197	50·0	26·4	23·6	37·4	− 2·1	33·8	28·8	8·6	19·3	3·2	71	92·5	10·9	0·004*	5·0	sP
21	...	30·316	52·1	28·2	23·9	40·0	+ 0·4	35·4	29·4	10·6	21·0	2·5	65	94·8	12·3	0·002*	0·0	sP : vP : sP
22	...	30·337	46·9	25·6	21·3	33·8	− 5·9	31·4	27·1	6·7	21·6	0·0	76	97·0	10·7	0·001*	0·0	vP : sP : ssP
23	In Equator	30·195	41·1	19·4	21·7	30·3	− 9·5	29·5	27·2	3·1	8·5	0·0	88	49·0	10·9	0·000	0·0	vP : sP : mP
24	...	30·175	39·9	28·3	11·6	32·5	− 7·5	30·4	25·9	6·6	11·0	0·0	76	86·8	14·3	0·003*	6·0	mP : sP : sP
25	...	30·161	35·5	30·4	5·1	32·5	− 7·6	30·3	25·7	6·8	9·5	5·2	74	46·1	28·4	0·003	0·0	mP : sP : sP
26	...	30·106	35·8	29·2	6·6	31·8	− 8·4	29·9	25·4	6·4	9·8	1·4	76	47·2	27·2	0·027	0·0	mP : sP : sP
27	First Quarter	29·959	35·1	28·9	6·2	31·8	− 8·5	30·8	28·5	3·3	6·1	1·7	86	46·8	26·8	0·050	0·5	wP : sP : sP
28	...	29·701	34·5	28·5	6·0	31·8	− 8·5	30·7	28·2	3·6	9·3	1·4	85	65·0	28·1	0·192	1·5	mP : mP : vP, ssN
Means	...	29·958	43·5	30·9	12·6	36·9	− 2·6	34·5	30·9	6·0	11·4	2·2	78·8	69·4	22·2	Sum 0·627	1·5	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

* Rainfall (Column 16). Amounts entered on February 7, 8, 20, 21, 22 and 24 are derived from fog or frost.

The mean reading of the *Barometer* for the month was $29^{in}\cdot958$, being $0^{in}\cdot156$ *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 56°·1 on February 4; the lowest in the month was 19°·4 on February 23; and the range was 36°·7.
The mean of all the highest daily readings in the month was 43°·5, being 1°·7 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 30°·9, being 3°·3 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 12°·6, being 1°·6 *greater* than the average for the 65 years, 1841–1905.
The mean for the month was 36°·9, being 2°·6 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Feb. 1	0·8	9·1	W : NW : N	N : NNE	4·0	0·28	334	10, m.-r : 10,oc.-slt.-r : 10,sc,cu.-s	p.-cl : p.-cl, lu.-co
2	0·5	9·2	WSW : W	W	6·7	0·20	351	p.-cl, h, ho.-fr : 10 : 10, s	p.-cl : p.-cl : 10, w
3	0·2	9·2	W	W	12·3	1·66	776	10, slt.-sh, w : 10, w : 10,sc,st.-w	9,slt.-sh,st.-w: 10, st.-w : p.-cl, w
4	0·4	9·3	W	WNW : W	8·5	1·10	666	p.-cl, w : p.-cl, w : 9,sc,cu.-s,w	p.-cl, w : 9, sc, w : 10, w
5	3·6	9·3	W : NW	NNW : NW	13·0	1·45	655	10, slt.-sh, w : 9, st.-w : p.-cl, sc, slt.-sh, st.-w	p.-cl, w : 1 : 1,th.-cl,d,lu.-ha
6	2·2	9·4	NNW : W : N	N : NNE : Variable	1·3	0·06	201	th.-cl,ho.-fr : 1, h : 9,cu.-s,slt.-f	8, cu.-s : p.-cl, slt.-f : 0,slt.-f,ho.-fr
7	5·5	9·4	WSW : Calm : Variable	SSE	1·0	0·03	151	p.-cl,f,ho.-fr: f : 1, f	1 : 0, ho.-fr, lu.-co
8	4·2	9·5	SSE : ESE : SE	SSE : SE : S	1·1	0·03	177	0, m, ho.-fr : p.-cl : p.-cl,s,cu.-s	p.-cl, s, li.-cl,so.-ha: 1 : th.-cl,lu.-ha,ho.-fr
9	0·0	9·5	S : SSW : SW	SW : WSW	2·9	0·25	326	th.-cl, ho.-fr : 9 : 10, s	10, s, n, r, sl : p.-cl : 9, slt.-sh
10	0·1	9·6	W : WNW	NW : NNE : NE	1·8	0·06	248	p.-cl, r : 10, r, sn : 10	10, n : 10 : 9
11	0·7	9·7	NE : ENE	ENE : NE	5·5	0·60	483	10, slt.-sh : 10, sh.-r : 9, sh.-r	p.-cl, cu, n : 10, sl : 10, sl, sn
12	7·3	9·7	ENE	ENE : NE	9·1	0·97	587	10 : p.-cl, f : 5,cu.-s,w	3, li.-cl, w : p.-cl, w : p.-cl, ho.-fr
13	3·3	9·8	NE : ENE	ENE : NE : NNE	3·6	0·27	356	slt.-h, ho.-fr: p.-cl : 8, cu.-s,n	9, ci, cu.-s : ci, ci.-s : 0, m, ho.-fr
14	1·0	9·9	Variable	N : NNW : NW	0·8	0·00	157	m, ho.-fr : 10, m : 9, s, m	p.-cl, th.-cl, so.-ha : p.-cl : p.-cl
15	3·1	9·9	WSW : NNW	N : NNW	1·7	0·10	271	10 : 10,slt.-m,slt.-sh: p.-cl, ci	8, cu.-s : p.-cl : p.-cl, d
16	4·0	10·0	NNW : N	N : NNW : NW	1·7	0·08	261	1, ho.-fr : 1 : 4, cu.-s	8 : 10 : 10
17	2·3	10·0	WSW : SW	WSW : SW	0·1	0·00	166	p.-cl : 9, slt.-f : 9,th.-cl,s	7,ci,ci.-s,so.-ha : th.-cl : 0, ho.-fr
18	7·2	10·1	S : Calm : SSE	SSE : SE : ESE	0·8	0·01	153	p.-cl, ho.-fr : 9 : 5,ci,cu.-s	6, cu : p.-cl : 0, ho.-fr
19	8·9	10·2	E : ESE	ESE : E	0·9	0·03	187	0, ho.-fr : 0	0 : 0 : 0, ho.-fr
20	9·8	10·2	SE : SSE	SE	1·1	0·03	166	0, ho.-fr : 0	0 : 0 : 0, ho.-fr
21	9·7	10·3	SE : SSE	SSE : SE : ESE	0·7	0·02	144	0, ho.-fr : 0	0 : 0 : 0,slt.-m,ho.-fr
22	6·2	10·4	E : ENE	E : ESE : Calm	1·0	0·01	126	0,m,f,ho.-fr : f	2, th.-cl : 0 : 0, h, ho.-fr
23	1·8	10·4	Calm : SW	Calm : E	1·2	0·03	150	0, f, ho.-fr : 0, slt.-f	1, th.-cl, slt.-f, so.-ha : p.-cl, so.-ha : 10
24	4·7	10·5	E : NE : NNE	E : ENE : NE	2·0	0·10	230	9 : 10,s,ho.-fr : 5,cu.-s,slt.-f	p.-cl : 10 : 9
25	0·0	10·6	N : NNE	NNE : ENE : NE	3·7	0·30	368	10 : 10 : 10, sn	10, sc, slt.-sn : 10 : 10
26	0·0	10·6	NE : N	N : NNE : NE	3·0	0·25	331	10 : 10, sn : 10, sn	10, sn, so.-ha, prh : 10, sn : p.-cl, slt.-sn
27	0·0	10·7	NNE : N	N : NE	3·0	0·28	320	10 : 10, sn : 10, sc, s, slt.-sn	10, sc, sn : 10, sc, sn : 10, sn
28	3·8	10·7	NE : ENE : SE	E : NE : Calm	1·0	0·02	139	10, sn : 10 : th.-cl	p.-cl, sn : 10, sn
Means	3·3	9·9	...	...	...	0·29	303		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 34°·5, being 3°·2 *lower* than
The mean *Temperature of the Dew Point* for the month was 30°·9, being 4°·5 *lower* than
The mean *Degree of Humidity* for the month was 78·8, being 6·7 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·173, being 0in·034 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·0, being 0gr·4 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 559 grains, being 6 grains *greater* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 6·2.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·329. The maximum daily amount of *Sunshine* was 9·8 hours on February 20.

The highest reading of the *Solar Radiation Thermometer* was 97°·0 on February 22; and the lowest reading of the *Terrestrial Radiation Thermometer* was 10°·7 on February 22.

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

The *Proportions of Wind* referred to the cardinal points were N. 8, E. 7, S. 4, and W. 7. Two days were calm.

The *Greatest Pressure of the Wind* in the month was 13·0 lbs. on the square foot on February 5. The mean daily *Horizontal Movement of the Air* for the month was 303 miles; the greatest daily value was 776 miles on February 3; and the least daily value was 126 miles on February 22.

Rain (0in·005 or over) fell on 9 days in the month, amounting to 0in·627, as measured by gauge No. 6 partly sunk below the ground; being 0in·853 *less* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Phases of the Moon.	Barometer. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Temperature. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	Temperature. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Mar. 1	Greatest Declination N.	29·567	33·5	26·7	6·8	30·1	−10·3	29·9	29·3	0·8	5·4	0·5	97	45·0	26·5	0·135	0·0	mP : sP : sP
2	...	29·266	38·3	16·8	21·5	29·1	−11·3	27·9	23·6	5·5	8·6	0·0	79	69·9	16·3	0·100	0·2	sP : sP : vP, ssN
3	...	29·027	38·4	27·9	10·5	30·8	− 9·7	30·4	29·3	1·5	5·3	0·0	94	62·3	28·0	0·295	1·1	vP, ssN
4	...	29·249	35·0	20·1	14·9	29·0	−11·7	27·1	20·2	8·8	12·2	3·2	68	72·6	16·7	0·000	0·7	mP : sP : ssP
5	...	29·401	41·7	13·6	28·1	28·3	−12·6	26·4	18·9	9·4	13·6	0·0	67	85·8	12·6	0·000	4·7	mP : sP : ssP
6	...	29·102	38·0	30·0	8·0	35·3	− 5·7	34·3	32·7	2·6	4·5	1·1	91	45·9	26·0	0·507	23·3	vP, ssN : vP, vN : ssN, vP
7	Full: Apogee	29·047	44·0	33·8	10·2	37·8	− 3·2	35·8	33·1	4·7	11·4	0·2	84	79·1	30·9	0·330	0·0	ssN, wP : mP : ssP, ssN
8	...	29·446	49·2	30·2	19·0	39·6	− 1·5	37·3	34·3	5·3	14·7	0·3	82	104·5	21·1	0·000	7·0	mP : wP : vP
9	In Equator	29·522	39·0	33·4	5·6	35·5	− 5·5	34·8	33·8	1·7	4·6	0·7	94	56·5	27·0	0·057	1·0	mP : mN, mP : mP
10	...	29·515	41·0	35·3	5·7	37·6	− 3·3	36·2	34·3	3·3	6·2	1·2	88	61·8	33·0	0·000	0·0	wP : mP : mP
11	...	29·604	36·8	33·2	3·6	34·7	− 6·3	33·9	32·6	2·1	3·3	1·3	92	37·0	31·9	0·065	1·0	mP
12	...	29·773	37·5	33·6	3·9	35·5	− 5·6	33·7	30·9	4·6	7·9	1·6	83	47·3	28·5	0·013	0·2	wP : mP : sP
13	...	29·638	41·9	33·1	8·8	36·7	− 4·6	33·6	29·2	7·5	11·7	3·4	75	76·0	28·0	0·000	0·8	wP : sP : sP
14	...	29·159	36·0	31·8	4·2	34·0	− 7·5	33·1	31·5	2·5	8·1	0·5	90	48·2	28·0	0·166	0·0	vN, wP : mP, sN : mP, mN
15	Last Quarter	29·102	35·7	29·3	6·4	31·9	− 9·8	30·4	26·9	5·0	5·7	1·0	80	50·6	25·1	0·032	0·3	mP : sP : sP, ssN
16	Greatest Declination S.	29·327	39·1	27·8	11·3	34·1	− 7·8	31·4	26·7	7·4	12·0	1·4	73	84·5	23·0	0·000	0·7	mP : ssP : ssP
17	...	29·421	45·3	23·1	22·2	35·6	− 6·4	32·9	28·8	6·8	16·7	2·2	75	92·5	13·9	0·000	5·5	sP
18	...	29·195	49·9	35·7	14·2	41·9	− 0·1	39·9	37·4	4·5	11·1	1·5	86	98·1	29·3	0·061	18·0	mP : vP, vN : vN, mP
19	...	29·113	57·0	43·1	13·9	47·0	+ 5·1	45·0	42·8	4·2	10·2	0·9	86	94·0	36·3	0·106	11·5	vN, wP : wP, vN : vP, vN
20	...	29·306	54·4	42·1	12·3	47·6	+ 5·7	46·0	44·2	3·4	7·8	1·7	89	91·3	34·0	0·040	8·0	wP : wP, vN : wP
21	Perigee: New	29·388	51·0	38·8	12·2	44·6	+ 2·7	42·7	40·5	4·1	8·2	0·9	86	101·0	31·2	0·070	6·0	wP : wP, wwN : mP
22	In Equator	29·470	52·1	42·0	10·1	46·1	+ 4·1	44·9	43·6	2·5	7·4	0·9	92	77·7	37·4	0·024	5·0	mP : wP
23	...	29·595	50·2	41·4	8·8	44·8	+ 2·6	43·6	42·2	2·6	5·0	0·4	91	94·7	35·0	0·077	0·2	wP, mN : wP : wP
24	...	29·520	51·0	39·0	12·0	46·6	+ 4·2	45·6	44·5	2·1	2·7	0·4	93	66·7	30·0	0·272	3·3	wP : wP : wP, wwN
25	...	29·059	54·0	42·1	11·9	47·2	+ 4·5	43·3	38·9	8·3	11·4	4·0	74	110·3	37·4	0·074	6·7	wwP : vP, vN : ssN, mP
26	...	29·386	48·3	38·5	9·8	42·1	− 0·9	37·7	32·3	9·8	13·7	6·4	70	89·0	30·0	0·000	0·8	mP : sP : sP
27	...	29·659	52·3	32·1	20·2	41·6	− 1·7	37·4	32·2	9·4	17·6	3·5	70	107·9	24·0	0·002	2·0	mP : vP : mP
28	First Quarter: Greatest Declination N.	29·358	53·2	38·9	14·3	46·3	+ 2·6	45·1	43·8	2·5	5·2	0·8	92	68·6	33·6	0·293	7·7	sN, wP : wP, wwN : wP, wwN
29	...	29·083	62·1	47·1	15·0	52·2	+ 8·1	49·5	46·8	5·4	12·2	1·5	82	117·6	40·5	0·007	15·3	wP, wN : wP : wP, wN
30	...	29·114	50·9	46·0	4·9	48·5	+ 4·0	46·8	45·0	3·5	5·5	1·0	88	63·7	41·2	0·347	8·0	wP, wN : vP, ssN : wP
31	...	29·382	53·1	40·2	12·9	47·6	+ 2·7	45·6	43·4	4·2	8·0	1·3	87	100·0	31·5	0·007	12·0	wP
Means	...	29·348	45·5	33·8	11·7	39·3	− 2·6	37·5	34·6	4·7	9·0	1·4	83·8	77·4	28·6	Sum 3·080	4·9	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·348, being 0in·398 *lower* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 62°·1 on March 29; the lowest in the month was 13°·6 on March 5; and the range was 48°·5.
The mean of all the highest daily readings in the month was 45°·5, being 4°·3 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 33°·8, being 1°·3 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 11°·7, being 3°·0 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 39°·3, being 2°·6 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Mar. 1	0·0	10·8	Calm : NNE	NE	1·9	0·05	193	10, sn : 10, sn	10, slt.-sn : 10, sn : p.-cl, fr
2	1·9	10·9	NNE : Calm : SW	SW : SSW : SE	0·3	0·01	178	p.-cl, ho.-fr: f, ho.-fr : p.-cl	p.-cl, so.-ha : p.-cl, th.-cl, lu.-ha, prs : 10, sn
3	0·0	10·9	Variable : Calm	E : NE : NNE	2·5	0·07	202	10, sn : 10 : 10, th.-cl, so.-ha	10, sn : 10, sn
4	2·7	11·0	N	N : SE : SW	2·0	0·12	245	10 : 10 : p.-cl, so.-ha	8,cu,n, ci.-s, so.-ha : th.-cl, slt.-m: th.-cl,h,ho.-fr
5	7·8	11·1	SW	SW : S : SE	0·6	0·00	199	0,h,ho.-fr: 0, h : 3, th.-cl	3, th.-cl : 3, ci, th.-cl : p.-cl, lu.-ha, ho.-fr
6	0·0	11·1	SE : ESE	SE	4·9	0·32	321	9 : 10,slt.-r, sn : 10, r, sn, sl	10, sn, r : 10, r : p.-cl,oc.-r, lu.-ha
7	3·4	11·2	SE : W : WSW	WSW : SW : S	4·4	0·18	325	10, r : 9, r : 8, th.-cl, so.-ha	p.-cl,sh.-r,hl: p.-cl,shs.-r,hl: p.-cl, s
8	10·3	11·3	S : SE	SE : ESE : E	1·6	0·05	206	1, ho.-fr : 1 : 3, ci, ci.-s	4,ci.-s, so.-ha, prh : 3, ci, ci.-s : p.-cl, ho.-fr
9	0·0	11·3	E : ENE : NE	E : ENE	1·1	0·01	212	10 : 10, r, sl, sn: 10, r, sn	10 : 10, slt.-sn : 10, slt.-sn
10	0·2	11·4	ENE : E	ENE : NE	4·1	0·31	380	10 : 10 : 8, cu.-s	10 : 10
11	0·0	11·5	NE	NE : NNE	4·0	0·26	395	10, r : 10,sn,oc.-r: 10, oc.-m.-r	10, m.-r, sn : 10, oc.-m.-r : 10
12	0·0	11·6	N	N : NNE : NNW	3·0	0·22	334	10 : 10, m.-r,sn : 10, n, sl	10 : p.-cl : p.-cl, slt.-sh
13	3·1	11·6	NNW : N	N : NNW : WSW	3·3	0·25	315	9 : p.-cl.slt.-sn: 7,cu,n,so.-ha	p.-cl, slt.-sn : p.-cl : 10, th.-cl
14	0·0	11·7	SW : WSW : NNW	N : NNW	7·1	0·54	421	10,oc.-m.-r: 10, sn : 10, sc, n	10,sc,n, sn, w : 10, sn, w : 9, slt.-sn, w
15	0·0	11·7	NNW : N	N	8·5	0·63	410	p.-cl,ho.-fr: p.-cl, s : 10, slt.-sn, w	10, sn, w : 10, sn
16	5·3	11·8	NNW : N	Variable	1·2	0·03	174	p.-cl,ho.-fr: p.-cl : 7, cu, cu.-s	7, cu.-n : p.-cl : 10, th.-cl, h
17	7·1	11·9	SSW : SW	SW : SSW : S	2·1	0·07	232	p.-cl : 1, ho.-fr : li.-cl	6, cu.-s : p.-cl, d : 9
18	0·7	11·9	S : SSE : SE	S : SSE	6·2	0·42	360	p.-cl : 9 : 9, w	10,sc,s,oc.-slt.-r,w: 10, oc.-slt.-r : 10, r
19	3·6	12·0	SSW : S	SSW : S	3·7	0·20	301	p.-cl, r : 10, fq.-r : p.-cl, oc.-r	8,cu,n,slt.-sh: p.-cl,oc.-shs: p.-cl, sh.-r
20	1·0	12·1	S	S : SW : WSW	2·5	0·05	235	p.-cl : 10 : 10	p.-cl,oc.-shs,so.-ha: p.-cl, [illegible] : 10, r
21	4·3	12·1	SW : SSW	S : SE : WSW	2·7	0·20	294	p.-cl : 1 : p.-cl, cu	10, oc.-r : 9
22	0·0	12·2	WSW : SSW	S : SSW : SSE	1·6	0·01	138	p.-cl,slt.-sh: 10 : 10, s	10, shs.-r : 10, slt.-sh : 9, oc.-r
23	0·3	12·3	Calm : NE : ENE	ENE : E : SE	0·5	0·00	117	9,fq.-hy.-shs: 10, n,oc.-slt.-r: 10	9 : p.-cl : 9
24	0·0	12·4	SSE : SSW	SSW : SW	8·0	0·62	462	p.-cl : p.-cl : 10, fq.-th.-r	10, r, w : 10, c.-r, w : 9, r, w
25	7·2	12·4	SW : WSW	W : NW	10·0	1·37	704	p.-cl : p.-cl : 6,cu.-s.li.-shs,w	8, fq.-shs, w : p.-cl, oc.-shs, w: 10, w
26	1·5	12·5	NW : NNW	NNW : NW	6·2	0·65	461	p.-cl, w : 10, w : p.-cl,cu, n, w	10, w : p.-cl : 1
27	7·4	12·5	WSW : SW	SW : SSW : S	1·8	0·07	232	1, ho.-fr : 0, h : 3, cu, cu.-s	p.-cl, th.-cl : p.-cl : 9, r
28	0·1	12·6	SSE : SE : S	S : SSW	3·6	0·30	334	p.-cl,sh.-r: 10, r : 10, sc, n, c.-r	10, r : 9, slt.-r 10, oc.-r
29	4·0	12·7	S : SSE : SSW	S	4·6	0·26	320	9,oc.-th.-r: 10,fq.-th.-r: p.-cl, cu, n	10 : p.-cl, sh.-r : p.-cl, lu.-ha
30	0·0	12·7	SSE : S : W	WSW	3·5	0·26	341	9 : 10,fq.-th.-r: 10,fq.-r,glm	10, fq.-r : 10 : 10, slt.-r
31	3·4	12·8	SW : S	S : SSE : WSW	7·6	0·28	337	p.-cl : 1 : p.-cl, so.-ha	10 : 10, fq.-th.-r : p.-cl, w
Means	2·4	11·8	...	...	...	0·25	303		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 37°·5, being 1°·9 *lower* than
The mean *Temperature of the Dew Point* for the month was 34°·6, being 1°·7 *lower* than
The mean *Degree of Humidity* for the month was 83·8, being 3·3 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·200, being 0in·014 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·4, being 0gr·1 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 545 grains, being 4 grains *less* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 8·4.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·206. The maximum daily amount of *Sunshine* was 10·3 hours on March 8.

The highest reading of the *Solar Radiation Thermometer* was 117°·6 on March 29; and the lowest reading of the *Terrestrial Radiation Thermometer* was 12°·6 on March 5.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 2·3; for the 6 hours ending 15h was 2·1; and for the 6 hours ending 21h was 0·5.

The *Proportions of Wind* referred to the cardinal points were N. 7, E. 5, S. 12, and W. 6. One day was calm.

The *Greatest Pressure of the Wind* in the month was 10·0 lbs. on the square foot on March 25. The mean daily *Horizontal Movement of the Air* for the month was 303 miles; the greatest daily value was 704 miles on March 25; and the least daily value was 117 miles on March 23.

Rain (0in·005 or over) fell on 22 days in the month, amounting to 3in·080, as measured by gauge No. 6 partly sunk below the ground; being 1in·560 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Apr. 1	...	29·794	47·3	33·6	13·7	42·9	− 2·4	39·4	35·2	7·7	13·6	3·1	75	88·1	24·2	0·000	2·0	wP : mP : mP
2	...	30·300	49·1	29·0	20·1	38·5	− 7·2	34·8	29·8	8·7	15·4	1·8	71	117·0	18·9	0·000	4·2	mP
3	Apogee	30·317	50·9	30·1	20·8	40·6	− 5·4	36·8	32·0	8·6	17·0	4·8	72	107·4	22·0	0·000	5·3	mP : wP : mP
4	...	30·275	53·3	31·4	21·9	41·5	− 4·7	36·7	30·8	10·7	22·5	3·6	66	114·5	20·1	0·000	5·7	wP : wP : mP
5	In Equator : Full	30·131	51·2	33·5	17·7	41·8	− 4·5	37·4	32·0	9·8	16·8	3·6	69	114·6	24·5	0·000	3·8	mP
6	...	30·154	57·2	33·9	23·3	45·6	− 0·7	40·5	34·7	10·9	20·8	2·2	66	115·5	20·6	0·000	0·0	mP
7	...	30·227	61·0	33·0	28·0	47·0	+ 0·7	41·0	34·3	12·7	23·9	2·7	61	118·0	17·1	0·000	0·0	mP
8	...	30·188	64·0	33·1	30·9	48·4	+ 2·3	40·9	32·7	15·7	27·7	6·7	55	121·2	19·5	0·000	0·0	sP : vP : vP
9	...	30·061	69·0	30·1	38·9	51·9	+ 5·9	42·4	32·7	19·2	32·6	4·2	49	129·7	17·3	0·000	0·0	sP : sP : vP
10	...	29·932	63·0	38·1	24·9	50·7	+ 4·8	45·0	39·1	11·6	20·3	6·2	64	109·0	22·0	0·000	2·0	mP : vP, wN : ...
11	...	29·658	71·3	39·1	32·2	55·6	+ 9·8	46·8	38·4	17·2	29·9	6·5	53	130·7	23·9	0·000	0·0	... : mP
12	Greatest Declination S.	29·521	56·8	41·7	15·1	48·6	+ 2·7	45·1	41·3	7·3	16·8	2·7	76	113·2	34·0	0·029	0·5	mP : vP, wN : mP
13	Last Quarter	29·466	57·2	43·7	13·5	49·3	+ 3·2	47·0	44·5	4·8	9·3	1·8	84	85·0	37·9	0·139	1·7	wP : mP, mN : mP
14	...	29·518	61·0	43·9	17·1	52·4	+ 6·0	48·2	43·9	8·5	18·2	1·4	73	115·2	30·0	0·041	0·8	wP : mP : sP
15	...	29·821	65·4	35·2	30·2	50·8	+ 4·0	44·9	38·8	12·0	23·4	1·5	64	135·1	23·6	0·000	0·0	mP : vP : mP
16	...	29·748	65·0	40·0	25·0	51·9	+ 4·7	47·0	42·0	9·9	17·7	1·3	69	106·0	30·1	0·014	9·7	wP : wP : sN, mP
17	...	29·733	64·1	44·1	20·0	53·0	+ 5·4	49·6	46·2	6·8	16·2	0·8	78	118·3	29·0	0·000	12·8	mP : wP : mP
18	Perigee : In Equator	29·679	65·5	45·6	19·9	53·5	+ 5·5	49·3	45·2	8·3	16·9	2·1	73	117·2	38·8	0·008	4·5	wP
19	...	29·621	68·7	37·6	31·1	54·3	+ 6·0	49·6	45·0	9·3	20·5	0·7	71	133·7	26·0	0·406	6·0	mP : wP : vP, vN
20	New	29·758	61·7	43·6	18·1	52·4	+ 3·9	45·9	39·3	13·1	19·8	0·6	62	125·0	31·6	0·061	3·0	vN, wP : mP : sP
21	...	29·792	60·8	34·4	26·4	48·2	− 0·5	43·7	38·8	9·4	17·5	2·2	70	114·5	22·9	0·000	10·0	mP : wP : wP
22	...	29·570	64·0	40·1	23·9	52·1	+ 3·4	48·0	43·8	8·3	22·8	1·3	73	131·5	29·0	0·110	13·8	mP : wP : wP, wN
23	...	29·598	63·0	46·2	16·8	52·1	+ 3·5	48·5	44·8	7·3	16·7	2·1	77	117·8	39·3	0·017	13·2	wP : mP : vP
24	...	29·458	64·0	47·0	17·0	53·1	+ 4·5	49·7	46·3	6·8	14·3	1·4	78	127·0	39·1	0·111	16·2	vP, vN : mP : mP
25	Greatest Declination N.	29·574	60·8	42·3	18·5	50·8	+ 2·2	46·9	42·8	8·0	15·2	1·5	75	126·2	32·0	0·072	12·8	wP : wP, ssN : wP, ssN
26	...	29·561	68·1	41·1	27·0	54·4	+ 5·8	48·3	42·4	12·0	25·0	2·9	64	125·2	28·5	0·078	14·2	wP : wP : vP, ssN
27	First Quarter	29·540	59·0	45·0	14·0	50·5	+ 1·8	48·1	45·6	4·9	10·5	1·5	84	118·9	34·8	0·296	11·5	mP, ssN : ssP, ssN : sP
28	..	29·814	62·2	42·3	19·9	50·9	+ 2·1	45·5	39·9	11·0	23·0	2·0	66	123·7	35·0	0·007	10·3	mP : vP : vP, sN
29	...	29·632	59·0	39·4	19·6	46·9	− 2·1	43·6	39·9	7·0	17·7	2·1	78	132·1	34·3	0·191	15·2	vP, vN : vP, ssN : v N,
30	Apogee	29·772	53·1	38·9	14·2	43·7	− 5·4	40·0	35·6	8·1	19·8	2·0	73	105·8	36·0	0·059	2·8	mP : sP, ssN : sP
Means	...	29·807	60·6	38·6	22·0	49·1	+ 1·8	44·4	39·3	9·9	19·4	2·6	69·6	117·9	28·1	Sum 1·639	6·1	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29^{in}·807, being 0^{in}·059 *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 71°·3 on April 11; the lowest in the month was 29°·0 on April 2; and the range was 42°·3.
The mean of all the highest daily readings in the month was 60°·6, being 3°·4 *higher* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 38°·6, being 0°·4 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 22°·0, being 3°·8 *greater* than the average for the 65 years, 1841–1905.
The mean for the month was 49°·1, being 1°·8 *higher* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Apr. 1	1·7	12·9	WSW : NNW : N	NNE : NE	4·1	0·40	388	9 : 10, w : 10, n	p.-cl, cu.-s : p.-cl : p.-cl, ho.-fr
2	6·1	12·9	NE : N	NE : E : SE	1·5	0·05	167	1, ho.-fr : 1 : 5, cu, s	9, cu.-s : ro, cu.-s, th.-cl, lu.-ha, d : th.-cl, lu.-ha
3	8·5	13·0	SE : ESE : SSE	SE : ESE	1·2	0·04	169	p.-cl, ho.-fr : p.-cl, so.-ha	1, so.-ha : ci.-s, ci.-cu, cu : 2, d, lu.-ha
4	12·2	13·1	SE	SE : E	4·6	0·23	283	1, ho.-fr : 1 : 3, ci.-s, so.-ha	1, ci.-s : 0, d
5	12·0	13·1	E : ENE	ENE : E	11·8	0·54	367	0, ho.-fr : 0, w	0, w : 0, d
6	12·1	13·2	NE : ENE : E	E : ENE	3·1	0·16	247	0, ho.-fr : 0	0 : 0
7	12·1	13·2	NE : ENE	E : ESE	2·5	0·10	213	0, ho.-fr : 0	0 : 0, d
8	12·7	13·3	NE	ENE : ESE : E	1·0	0·05	163	0, ho.-fr : 0	0 : 0, d
9	11·7	13·4	E : Calm	Variable	0·1	0·00	96	0, ho.-fr : 0, h : 3	2, h : 0, h : 0, h, d
10	10·9	13·4	Variable : Calm	E : SSW	0·3	0·01	119	0, h, ho.-fr : 0, h	1, li.-cl : 1 : 0, h
11	11·7	13·5	SW : WSW	WSW : W : WNW	6·0	0·31	377	0, ho.-fr : 0 : 0, h	1, cu, w : p.-cl, ci, ci.-s : p.-cl
12	5·2	13·6	WNW : W	SW : WSW	7·3	0·50	493	p.-cl : li.-cl : 8, s, sh.-r	10, fq.-r : p.-cl, w : p.-cl
13	0·0	13·6	SW : WSW	SW : WSW	4·6	0·34	414	p.-cl : 10 : 10	10, r : 10 : 10
14	5·4	13·7	WSW : W : NW	W : WNW	4·8	0·42	419	9, slt.-sh : 10, fq.-r : 10, r	8 : p.-cl : 0, h, d
15	11·0	13·8	WSW : SW	SW : SSW	1·0	0·05	206	0, d, ho.-fr : li.-cl : p.-cl	7, cu.-s, cu, n : p.-cl, ci.-s, cu.-s : th.-cl
16	3·2	13·8	SSW : S	SW : WSW	4·8	0·21	320	th.-cl : 9 : 9, ci.-s, cu.-s	9, cu, n, so.-ha : p.-cl, shs.-r : 0, d
17	5·7	13·9	SW : SSW	SW : SSW	4·3	0·32	344	p.-cl : 9 : 8, cu	p.-cl, cu, cu.-s : 9 : 9, d
18	3·5	14·0	SSW : SW	SW : SSW	1·2	0·08	242	10, oc.-slt.-r : 10 : 8	p.-cl : p.-cl, n : p.-cl, d
19	9·3	14·0	SW : S : SE	SE : E : ESE	1·8	0·09	176	0 : p.-cl, m : 5, ci.-s, li.-cl, so.-ha	5, ci, cl.-s, ci.-cu, so.-ha : p.-cl : 10, r, hy.-sh
20	10·9	14·1	W : WSW	W : WSW	7·0	0·65	522	p.-cl, r, w : cu, w : 5, cu, n, w	6, cu, n, w : p.-cl : 0, h
21	10·4	14·1	SW : Variable : E	E	4·0	0·22	260	0, d : li.-cl : p.-cl, so.-ha	th.-cl, so.-ha : th.-cl : th.-cl, d
22	6·4	14·2	E : SW : S	S : SSW	5·2	0·38	355	9 : 9 : p.-cl, cu, so.-ha	7, ci, cu, s : 10, r, w : p.-cl, r, w
23	8·2	14·3	SSW : SW	SW : SSW : S	3·5	0·31	361	p.-cl : li.-cl : 8, ci, cu.-s	9, cu.-s, n : p.-cl, r : p.-cl
24	4·7	14·3	S : SW	SW	5·4	0·47	393	p.-cl, oc.-r : 10, th.-r : p.-cl, so.-ha	9, th.-cl, n, w : th.-cl, w, so.-ha, prh : 10, s
25	11·7	14·4	SW	SW : S	5·0	0·28	334	p.-cl, d : li.-cl, d : p.-cl, cu, n, slt.-sh	p.-cl, cu, n, shs.-r : ci.-s, cu.-s : s, lu.-ha
26	12·0	14·4	S : SSW : SW	SW : SSW : SE	2·2	0·13	260	p.-cl, slt.-sh : 1, d : 1, cu, s	1 : 9, sh.-r : p.-cl, sh.-r, lu.-ha
27	4·4	14·5	SSW : SW	SSW : WSW : W	5·0	0·17	296	p.-cl, r : 10 : 9, n, fq.-r, hl, l, t, sq	8, cu, n, fq.-shs : p.-cl, slt.-sh : 10, sh.-r
28	11·1	14·6	WSW : SW	WSW : SW	6·2	0·60	481	p.-cl : li.-cl, cu : 7, sc, cu, cu.-s, w	5, ci, cu, w : p.-cl, so.-ha, prh, w : 9, oc.-slt.-r, lu.-ha
29	7·3	14·6	SW : WSW	SW : S : NNW	5·3	0·33	393	10, oc.-r : p.-cl, cu, n : 7, cu, n	9, ci.-s, cu, n, s, shs.-r, hl, l, t, so.-ha : 10, fq.-r : 10, r
30	7·4	14·7	NNW : NW	NW : WNW : WSW	14·7	0·38	388	10, r : 9, oc.-slt.-r : p.-cl, shs.-r, w	p.-cl, sh.-r, w, sqs, prh : cu, n, w : p.-cl, d
Means	8·3	13·8	...	...	...	0·26	308		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 44°·4, being 0°·5 *higher* than
The mean *Temperature of the Dew Point* for the month was 39°·3, being 0°·8 *lower* than
The mean *Degree of Humidity* for the month was 69·6, being 6·2 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·240, being 0in·008 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·8, being 0gr·1 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 543 grains, being the *same* as
} the average for the 65 years, 1841–1905.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·603. The maximum daily amount of *Sunshine* was 12·7 hours on April 8.

The highest reading of the *Solar Radiation Thermometer* was 135°·1 on April 15; and the lowest reading of the *Terrestrial Radiation Thermometer* was 17°·1 on April 7.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 2·6; for the 6 hours ending 15h was 2·4; and for the 6 hours ending 21h was 1·1.

The *Proportions of Wind* referred to the cardinal points were N. 3, E. 7, S. 10, and W. 9. One day was calm.

The *Greatest Pressure of the Wind* in the month was 14·7 lbs. on the square foot on April 30. The mean daily *Horizontal Movement of the Air* for the month was 308 miles; the greatest daily value was 522 miles on April 20; and the least daily value was 96 miles on April 9.

Rain (0in·005 or over) fell on 16 days in the month, amounting to 1in·639, as measured by gauge No. 6 partly sunk below the ground; being 0in·073 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation=100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
May 1	...	29·908	50·1	35·1	15·0	42·2	− 7·1	37·6	32·0	10·2	18·1	1·7	69	116·0	29·0	0·064	0·0	sP, ssN : ssP : sP, sN
2	In Equator	30·158	54·3	34·5	19·8	44·3	− 5·2	39·9	34·8	9·5	17·4	1·8	69	126·2	24·5	0·000	2·0	mN, mP : mP : vP
3	...	30·249	60·5	35·2	25·3	47·9	− 1·9	43·3	38·2	9·7	19·6	2·6	70	126·1	23·5	0·000	11·0	wP : wP : mP
4	...	30·211	64·0	35·2	28·8	51·4	+ 1·4	44·8	38·1	13·3	24·5	1·6	60	133·9	20·1	0·000	11·0	mP : wP, wN : mP
5	Full	30·074	61·0	41·9	19·1	52·2	+ 1·9	46·5	40·7	11·5	24·1	2·4	66	130·6	26·7	0·000	4·5	mP : wP, wwN : wP
6	...	30·032	64·0	47·6	16·4	54·4	+ 3·9	48·7	43·2	11·2	19·6	4·4	66	129·0	39·2	0·000	5·7	wP : wP, wN : mP
7	...	30·029	61·1	44·9	16·2	52·2	+ 1·5	45·2	38·1	14·1	22·2	5·9	59	130·2	35·0	0·000	4·8	wP : ... : wP
8	...	29·977	62·2	42·1	20·1	51·8	+ 0·8	43·5	35·1	16·7	23·8	5·9	53	129·2	28·1	0·000	13·2	mP : wP : mP
9	Greatest Declination S.	29·860	59·3	37·1	22·2	48·1	− 3·1	42·7	36·8	11·3	20·5	6·1	65	122·0	21·9	0·000	10·0	sP : mP
10	...	29·893	58·1	39·9	18·2	48·6	− 2·9	44·1	39·2	9·4	15·8	4·4	70	128·9	27·0	0·000	3·8	mP : sP : vP
11	...	30·003	71·0	33·8	37·2	53·0	+ 1·2	47·5	42·0	11·0	21·8	1·8	66	124·1	21·5	0·000	6·2	vP : mP
12	Last Quarter	29·968	73·9	43·8	30·1	57·2	+ 5·1	50·2	43·8	13·4	30·6	2·5	61	131·5	36·0	0·005	0·8	mP : vP : vP
13	...	30·075	54·4	37·1	17·3	46·0	− 6·4	40·6	34·5	11·5	18·2	4·6	65	133·6	26·2	0·000	6·0	mP : sP : vP
14	...	29·963	51·2	36·5	14·7	43·2	− 9·4	40·2	36·6	6·6	11·0	1·9	78	100·9	32·4	0·096	3·0	vP, wN : vP : sP
15	...	29·908	53·0	36·2	16·8	43·7	− 9·1	39·6	34·7	9·0	15·0	2·1	71	134·0	23·6	0·000	7·0	mP : vP : mN, vP
16	In Equator : Perigee	29·798	56·0	33·1	22·9	46·8	− 6·2	41·9	36·4	10·4	18·2	2·0	68	127·5	20·1	0·000	6·0	wP
17	...	29·668	53·5	37·6	15·9	45·6	− 7·5	43·4	40·9	4·7	14·0	2·0	84	94·8	26·2	0·101	0·5	ssN, vP : sP : vP
18	...	29·969	62·5	35·2	27·3	49·1	− 4·2	45·5	41·7	7·4	17·7	1·6	76	135·5	23·9	0·027	6·5	mP : vP, vN : mP
19	New	30·109	69·2	38·9	30·3	54·3	+ 0·8	48·5	42·9	11·4	22·0	1·1	65	135·1	24·8	0·000	0·0	mP : wP : vP
20	...	30·077	74·5	36·6	37·9	57·7	+ 3·9	50·5	44·0	13·7	26·2	3·3	60	142·0	19·9	0·000	6·0	mP : wP
21	...	29·919	81·8	45·2	36·6	64·4	+10·2	56·3	49·6	14·8	26·2	2·7	59	140·3	30·1	0·000	7·0	wP : wP : mP
22	Greatest Declination N.	29·921	84·0	50·2	33·8	67·5	+12·9	58·8	51·9	15·6	30·6	6·2	57	144·2	35·2	0·000	1·2	mP : wP : mP
23	...	29·974	81·2	52·9	28·3	67·1	+12·2	58·9	52·3	14·8	23·0	2·3	59	151·3	39·0	0·000	3·8	mP : wP : wP
24	...	30·087	74·6	46·2	28·4	61·0	+ 5·7	53·3	46·6	14·4	24·0	0·6	59	139·5	30·5	0·000	0·0	mP : wP, wwN : wP
25	...	29·556	61·8	48·8	13·0	54·7	− 0·8	52·4	50·2	4·5	11·0	1·9	85	93·1	43·7	0·655	1·5	wP, wwN : vP, vN : vP, ssN
26	...	29·384	61·4	46·1	15·3	51·9	− 3·9	49·0	46·1	5·8	10·8	2·1	81	123·7	40·2	0·111	23·7	wP : wP, ssN : wP
27	First Quarter	29·486	62·0	49·6	12·4	53·5	− 2·5	50·6	47·7	5·8	13·5	1·5	81	130·1	46·0	0·112	12·8	wP : wP, vN : vP, vN
28	Apogee	29·703	70·9	46·3	24·6	56·8	+ 0·6	51·3	46·2	10·6	20·9	0·6	67	137·1	39·3	0·038	13·0	wP : wP : mP, wN
29	...	29·831	68·0	48·8	19·2	57·7	+ 1·3	52·5	47·8	9·9	18·5	1·0	70	130·7	42·5	0·030	7·5	wP : mP : mP
30	In Equator	30·052	73·7	46·1	27·6	60·3	+ 3·6	54·4	49·2	11·1	20·1	1·9	67	139·2	38·2	0·000	5·3	wP
31	...	29·876	76·0	49·1	26·9	62·6	+ 5·5	57·0	52·2	10·4	21·6	1·4	69	147·0	36·6	0·000	12·2	wP : wwP : wP
Means	...	29·926	64·8	41·7	23·1	53·1	+ 0·1	47·7	42·4	10·8	20·0	2·6	67·6	129·3	30·7	1·239	6·3	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29^{in}·926, being 0^{in}·132 *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 84°·0 on May 22; the lowest in the month was 33°·1 on May 16; and the range was 50°·9.
The mean of all the highest daily readings in the month was 64°·8, being 0°·9 *higher* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 41°·7, being 2°·0 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 23°·1, being 2°·9 *greater* than the average for the 65 years, 1841–1905.
The mean for the month was 53°·1, being 0°·1 *higher* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
May 1	10·1	14·8	W : WNW : NNW	NNW : NW	7·8	0·38	374	10, hy.-r : p.-cl : 7, cu, n	6, cu, n : p.-cl, li.-shs, sqs : p.-cl, d
2	10·7	14·8	NW : W : NNW	N : Variable : SE	1·5	0·06	203	p.-cl, ho.-fr : p.-cl : 7, cu, n	7, cu, cu.-s, li : 6, cu, n : p.-cl
3	10·9	14·9	SSE : S : SSW	SE : ESE	1·5	0·05	187	p.-cl, ho.-fr : p.-cl : 7, cu, n	p.-cl, cu, n : ci.-s, th.-cl : 0, d
4	14·1	14·9	ESE : SE	E	6·2	0·40	279	0, slt.-m, ho.-fr : 1, ci, ci.-s, so.-ha : 3, ci, ci.-s, so.-ha	4, ci, ci.-s, so.-ha, w : ci, ci.-s, w : 1, d
5	14·2	15·0	E : ENE	ENE : E	9·4	0·81	431	0, slt.-m, d, ho.-fr : 0 : 0, w	0, w : 0, w : 0, d
6	14·0	15·0	ENE : E	E : ENE	12·5	0·95	476	0, d : 0, w	1, ci.-s, st.-w : 1, ci.-s, w : 0, d
7	14·1	15·1	ENE : E	E : ENE	19·0	1·05	505	0 : 0, w : 0, w	0, st.-w, hy.-sqs : 0
8	14·4	15·1	ENE : E	E : ENE	9·8	0·58	405	0 : 0, w	1, ci.-s, w : 0
9	11·3	15·2	E : NE : N	N : NNE	3·5	0·29	296	0, ho.-fr : 1, th.-cl : 2, li.-cl	p.-cl, cu : 10 : 10
10	10·5	15·2	NE : NNE : N	N : NNE : NE	1·9	0·13	236	10 : 9 : 4, cu, cu.-s	6, cu, cu.-s : p.-cl, cu, s : 1
11	13·6	15·3	Calm : SW	SW : SSW	1·9	0·09	180	1, h, ho.-fr : h : 0, h	1, th.-cl, s : 1, h
12	9·1	15·4	SW : WSW	W : NNW : N	8·0	0·37	361	1, h : p.-cl : 8, ci, cu	7, ci, cu, so.-ha : p.-cl, oc.-slt.-r, w : 9, w
13	9·7	15·4	NNE : N	NNE : NE : E	3·2	0·22	273	p.-cl, ho.-fr : p.-cl : 5, cu, n	8 : 10
14	3·1	15·5	NE : Variable	SSW : SW	0·6	0·02	150	10, r : 10, r, slt.-sn : 10	8, oc.-slt.-r : p.-cl : p.-cl, d
15	5·4	15·5	NNW : N : NE	NE : E	2·2	0·09	175	1, ho.-fr : p.-cl, oc.-slt.-r : 8, cu, n, slt.-sh	9, cu, n : p.-cl : 1, d
16	10·5	15·6	E : NE : ENE	ENE : NE : NNE	5·5	0·40	343	0, ho.-fr : p.-cl, m : 6, cu, w	7, ci, cu, w, so.-ha : 9 : 10, oc.-m.-r
17	3·2	15·6	N : NNW : NW	W : NW : Variable	2·4	0·13	236	10, m.-r : 10, oc.-r : 10, n, r	9, n, glm, oc.-m.-r : p.-cl : p.-cl, h, d
18	9·4	15·7	SW	SW	3·0	0·16	283	1, h : p.-cl : cu, n	v, sh.-r : p.-cl, ci.-s : 1, d
19	13·7	15·7	WSW : Calm	SW : SSW	1·0	0·03	146	1, m : li.-cl, h : 5, ci.-s, cu	3, ci.-s, li.-cl : ci, ci.-s : 1
20	13·1	15·7	Variable : NE : SE	SE : E	3·0	0·11	190	1, ho.-fr : 1, m : 0	1, ci : ci.-s, li.-cl : 1, d
21	12·6	15·8	E : ENE	E : SSW : SW	1·3	0·03	156	1 : li.-cl : 6, ci, ci.-s, so.-ha	ci, ci.-s, so.-ha : ci.-s, li.-cl : 1, d
22	13·4	15·8	SW : WSW	WSW : SW	1·0	0·03	200	1 : 0, m : 2, ci.-s, th.-cl	4, ci.-s, cu : p.-cl, ci.-s, s : 9
23	13·0	15·9	SW : WSW	SW : WNW : W	3·0	0·19	291	p.-cl : li.-cl : 6, ci, cu	5, ci, cu : p.-cl : p.-cl, d
24	13·2	15·9	Variable : Calm	SE : ESE : E	2·3	0·09	164	1 : th.-cl : 3, ci, th.-cl	2, ci, ci.-s : p.-cl
25	0·0	16·0	E : Variable : ESE	SW : SSW	3·3	0·14	244	9 : 10, r, oc.-hy.-shs : 10, c.-r	10, r : p.-cl, fq.-shs : p.-cl
26	5·6	16·0	SSW : S : SSE	SSW : SW	7·7	0·60	431	p.-cl : p.-cl, w : 10, r, w	p.-cl, cu, n, w : 10, w : 10, m.-r
27	3·6	16·1	SSW	SW : SSW	3·2	0·29	312	p.-cl, slt.-sh : p.-cl : p.-cl, sh.-r, so.-ha	9, ci, cu, n : 10, sh.-r : p.-cl, m.-r
28	11·5	16·1	SW : WSW	SW : SSW	2·5	0·17	255	9 : 1, h : 6, cu, th.-cl	6, cu : p.-cl, cu, n : 10, r
29	9·0	16·1	SSW : WSW	WNW : WSW	2·9	0·21	317	10, oc.-r : p.-cl : 8, cu, n	9, cu, n : p.-cl : 1
30	14·0	16·2	SW	SW : SSW	1·2	0·04	215	1 : 1 : 2, cu	3, cu : 3, ci, cu, s : 8
31	14·9	16·2	SSW	SSW : S	1·3	0·05	197	8 : 1 : 3, ci, ci.-s, ci.-cu, so.-ha	5, ci, ci.-cu : 3, ci, ci.-cu : 2, ci, ci.-cu, lu.-co, d
Means	10·5	15·5	...	...	...	0·26	275		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 47°·7, being 1°·3 *lower* than
The mean *Temperature of the Dew Point* for the month was 42°·4, being 2°·6 *lower* than
The mean *Degree of Humidity* for the month was 67·6, being 6·6 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·271, being 0in·028 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·0, being 0gr·4 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 540 grains, being 2 grains *greater* than
} the average for the 65 years, 1841–1905.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·677. The maximum daily amount of *Sunshine* was 14·9 hours on May 31.

The highest reading of the *Solar Radiation Thermometer* was 151°·3 on May 23; and the lowest reading of the *Terrestrial Radiation Thermometer* was 19°·9 on May 20.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 2·5; for the 6 hours ending 15h was 2·5; and for the 6 hours ending 21h was 1·3.

The *Proportions of Wind* referred to the cardinal points were N. 6, E. 9, S. 8, and W. 7. One day was calm.

The *Greatest Pressure of the Wind* in the month was 19·0 lbs. on the square foot on May 7. The mean daily *Horizontal Movement of the Air* for the month was 275 miles; the greatest daily value was 505 miles on May 7; and the least daily value was 146 miles on May 19.

Rain (0in·005 or over) fell on 10 days in the month, amounting to 1in·239, as measured by gauge No. 6 partly sunk below the ground; being 0in·676 *less* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
June 1	...	29·668	65·5	49·7	15·8	58·2	+ 0·8	55·1	52·3	5·9	9·7	1·8	81	106·0	36·8	0·343	1·0	vP : wP : vP, ssN
2	...	29·786	52·2	47·9	4·3	50·4	− 7·4	48·8	47·1	3·3	6·8	1·3	89	68·0	45·8	0·102	0·8	wP
3	...	29·868	54·0	46·9	7·1	49·6	− 8·5	46·1	42·4	7·2	10·6	4·0	76	83·0	44·9	0·001	5·2	wP : mP : mP
4	Full	29·610	50·8	45·2	5·6	48·2	−10·1	47·3	46·3	1·9	4·8	0·2	94	59·0	44·4	0·499	0·0	vP, vN : mP : wP
5	...	29·610	57·1	47·2	9·9	51·1	− 7·3	49·2	47·2	3·9	7·6	0·2	87	109·9	47·3	0·002	1·5	mP : mP : wP
6	Greatest Declination S.	29·732	51·0	43·6	7·4	47·7	−10·6	46·1	44·3	3·4	5·7	0·0	89	67·0	42·8	0·093	5·5	wP, wN : wP : wP
7	...	29·881	62·0	42·8	19·2	51·7	− 6·5	47·9	44·1	7·6	14·3	1·7	76	139·4	30·0	0·000	6·0	wP : wP : mP
8	...	29·907	68·0	40·5	27·5	54·7	− 3·4	49·8	45·1	9·6	19·1	0·2	70	119·9	29·1	0·000	6·0	wP : mP : mP
9	...	29·905	64·3	50·7	13·6	55·7	− 2·3	51·8	48·1	7·6	13·9	0·0	76	111·5	42·1	0·000	0·0	mP : mP : wP
10	...	29·843	54·9	41·7	13·2	48·7	− 9·4	47·8	46·8	1·9	6·2	0·0	94	87·0	29·7	0·076	0·0	wP : wP, wN : mP
11	Last Quarter	29·776	56·6	38·3	18·3	47·4	−10·8	44·6	41·5	5·9	12·2	1·1	81	114·2	29·0	0·097	3·0	mP : sP : vP, ssN
12	In Equator : Perigee	29·837	54·0	41·6	12·4	48·7	− 9·7	47·0	45·1	3·6	7·0	1·5	88	90·2	34·8	0·525	0·0	mP : ssN, ssP : mP, ssN
13	...	29·982	65·5	46·9	18·6	54·0	− 4·5	50·4	46·9	7·1	16·3	2·1	76	113·0	37·8	0·006	0·0	wP : mP : mP
14	...	30·082	67·0	45·1	21·9	57·0	− 1·7	52·6	48·5	8·5	13·9	1·0	73	120·1	36·0	0·000	0·0	wP
15	...	30·084	59·3	45·9	13·4	52·9	− 5·9	50·4	47·9	5·0	10·3	0·6	83	116·0	33·0	0·000	2·0	wP
16	...	30·048	66·0	49·3	16·7	55·6	− 3·3	51·8	48·2	7·4	15·3	2·8	77	124·8	44·0	0·000	4·0	wP : wP : mP
17	New	30·133	70·2	49·2	21·0	57·1	− 1·9	53·4	50·0	7·1	15·5	2·7	77	122·2	46·3	0·000	0·0	wP
18	...	30·172	68·9	48·2	20·7	57·7	− 1·5	52·9	48·6	9·1	18·2	4·8	72	119·9	36·4	0·000	2·0	wP : mP : mP
19	Greatest Declination N.	30·071	74·3	50·1	24·2	60·9	+ 1·4	57·0	53·7	7·2	18·2	2·1	77	134·9	37·0	0·036	10·7	wP
20	...	29·846	69·2	54·3	14·9	59·8	− 0·1	56·7	54·0	5·8	11·2	2·5	82	121·2	49·3	0·014	16·0	wP
21	...	29·510	73·0	54·1	18·9	61·3	+ 1·0	56·2	51·8	9·5	18·7	2·4	72	139·0	49·1	0·000	19·3	wP
22	...	29·255	65·8	50·0	15·8	56·9	− 3·7	52·6	48·7	8·2	19·6	2·7	74	137·8	42·2	0·012	12·7	wP : wwP, vN : mP
23	...	29·349	65·6	48·6	17·0	54·2	− 6·7	50·2	46·3	7·9	16·2	2·1	74	133·0	40·1	0·000	17·8	wP, ssN : wP : wP, wN
24	...	29·261	65·1	50·1	15·0	53·3	− 7·9	51·4	49·5	3·8	8·7	0·8	87	131·8	42·4	1·080	4·5	wP, vN : vP, vN : ssN, mP
25	Apogee : First Quarter	29·508	55·9	49·5	6·4	52·5	− 8·9	50·9	49·3	3·2	5·2	1·4	89	74·5	48·0	0·208	0·0	wP : vP, vN : vP, sN
26	In Equator	29·695	63·0	48·3	14·7	52·4	− 9·1	49·5	46·6	5·8	14·4	0·8	81	116·2	47·0	0·139	0·0	wP : wP : vP, wN
27	...	29·736	61·0	47·5	13·5	52·9	− 8·7	50·9	48·9	4·0	10·5	0·6	87	103·9	38·7	0·361	0·0	vN, wP : vP, vN : wP
28	...	29·797	67·1	44·6	22·5	55·8	− 5·8	51·8	48·0	7·8	14·9	0·8	76	124·1	32·6	0·000	0·0	wwP : wP : wP
29	...	29·733	65·1	50·3	14·8	55·2	− 6·4	52·7	50·3	4·9	14·8	1·0	84	119·0	42·0	0·077	0·0	wP : vP, vN : wP
30	...	29·832	61·0	48·2	12·8	54·1	− 7·4	50·8	47·6	6·5	13·1	1·8	78	105·6	40·0	0·000	0·5	wP
Means	...	29·784	62·4	47·2	15·2	53·9	− 5·5	50·8	47·8	6·0	12·4	1·5	80·7	110·4	40·0	Sum 3·671	3·9	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29$^{in.}$·784, being 0$^{in.}$·031 *lower* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 74°·3 on June 19; the lowest in the month was 38°·3 on June 11; and the range was 36°·0.
The mean of all the highest daily readings in the month was 62°·4, being 8°·3 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 47°·2, being 2°·7 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 15°·2, being 5°·6 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 53°·9, being 5°·5 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS. OSLER'S. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	ROBINSON'S. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	CLOUDS AND WEATHER. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
June 1	1·2	16·2	Calm : NNW : N	NNE : N	4·1	0·25	263	1, m : p.-cl : 10, cu.-s	10 : 10, slt.-sh : 10, r, l, t
2	0·0	16·3	NNE	NNE : NE	5·1	0·52	405	10 : 10, r : 10, c.-r	10, sc, r : 10, sc : 10, oc.-slt.-r
3	0·0	16·3	NNE : NE	NE	7·0	0·99	503	10, slt.-r : 10, w : 10, cu.-s, n, w	10, sc, cu.-s, w : 10
4	0·0	16·3	NE : NNE	NNE : N : NE	5·9	0·47	391	10, sh.-r, w : 10, r : 10, sc, n, c.-r	10, th.-r : 10, fq.-r : 10, m.-r
5	1·1	16·4	NNE : N	N : NE : E	1·9	0·02	170	10, slt.-r : th.-cl, : 9, cu, n, th.-cl, so.-ha	10, m.-r : 10, m.-r
6	0·0	16·4	E : ENE	ENE	0·8	0·05	182	10, m.-r : 10, oc.-r : 10, s	10, s, th.-r : 10, s : 10
7	5·3	16·4	ENE : NE	NE : SE	0·8	0·03	165	10 : 9 : 9, cu, cu.-s	9, cu, cu.-s, n : cu, cu.-s : 1, d
8	13·8	16·4	SW : W : NW	NW : NNW	1·6	0·09	220	0 : 0, m, h : 0	2, ci.-cu, cu, so.-ha : 4, cu, so.-ha : 8
9	2·3	16·4	NW : NNW : N	N : ESE : SE	1·0	0·06	174	9 : 10 : th.-cl	9, cu, n : 9, cu, n : 10
10	0·4	16·5	NNW : Calm : NE	ENE : NNE	1·8	0·04	163	10 : 10 : 10, oc.-th.-r, glm	10, r : p.-cl : 1
11	1·7	16·5	N : NNW	NNW : NNE : N	2·8	0·07	193	1 : p.-cl : 9, cu, n	9, oc.-shs : 10, n, fq.-r : p.-cl, r
12	1·9	16·5	N : NNW	N	2·4	0·15	236	p.-cl : p.-cl : 10, shs.-r	10, sc, n, c.-hy.-r : 10, n, r : 10, r
13	2·8	16·5	NNW : N	N : NNW : Calm	1·0	0·04	163	10, r : 10 : 10, s	9, cu, cu.-s : p.-cl, cu.-s, th.-cl : 8, s, d
14	10·0	16·5	Calm : Variable	NE : ENE : E	0·8	0·02	123	9 : p.-cl, m, hy.-d : 6, ci, cu	ci, cu, n : cu, n : 9
15	1·2	16·5	E : NE	NE : Variable	0·4	0·00	145	10 : 10 : 9, n	9 : cu, n : 10, n
16	6·9	16·5	NNW : N : NNE	N : NNW : NNE	0·5	0·04	203	10 : 9 : 8, cu	6, ci.-cu, cu, n : cu, n : p.-cl, d
17	5·5	16·5	N : NNW : NNE	ENE : NNE : NNW	1·5	0·02	173	9 : 10 : 8, th.-cl	5, cu, th.-cl : 10, n : 10
18	6·4	16·6	NNW	N : NNW : SW	0·3	0·00	149	10 : th.-cl, h : 7, th.-cl, h, so.-ha	6, cu, n : cu, n, s : p.-cl, d
19	4·6	16·6	SW	WSW : SW	4·2	0·09	284	p.-cl : 9 : p.-cl, cu	p.-cl, cu, n : p.-cl, fq.-shs : p.-cl
20	3·1	16·6	WSW : SW	SW : SSW	3·5	0·23	358	10 : p.-cl : 10, cu, n, r	9, shs.-r : cu.-s, n : p.-cl
21	6·9	16·6	SSW : SW	SSW : S : SSE	1·3	0·07	232	9 : 9 : 9, cu, n, so.-ha	ci.-s, cu, so.-ha : 9 : 9, s, n, l
22	7·7	16·6	S : SSW : SW	SW : SSW	8·9	0·49	389	9 : 10, slt.-r : 9, oc.-slt.-r	8, cu, n, slt.-r, t, w : p.-cl, slt.-sh, w : 1
23	8·7	16·6	S : SSW	S : SE	5·0	0·23	294	p.-cl, slt.-sh : p.-cl, oc.-slt.-r : 8, ci, cu, n, li.-shs	8, cu, n : p.-cl, ci, cu : p.-cl, r
24	2·5	16·6	SE : Variable : SW	SW : WNW : W	3·9	0·13	252	p.-cl, fq.-shs : 10, oc.-hy.-shs : p.-cl, oc.-hy.-shs l, t	p.-cl, n, r, l, t : 10, shs.-r : 10
25	0·0	16·6	W : WSW	WNW : W : NNW	3·4	0·29	373	10 : 10, oc.-slt.-r : 10, r	10, c.-r : 10, r : 10, r
26	1·2	16·6	NW : NNW	NNW : WSW : SW	2·9	0·15	242	10 : 10, slt.-r : 10	9, cu, n : 9, slt.-r : 10, r
27	0·4	16·5	SW : Calm : Variable	SW : WSW : Variable	0·2	0·00	116	10, r : 10, oc.-slt.-r : 10, n	9, r : 9
28	4·9	16·5	SSW : SW : WSW	SW	0·6	0·01	156	p.-cl : p.-cl : 6, cu	p.-cl, cu, n : p.-cl : 10, th.-cl
29	2·0	16·5	SW : Calm : NE	NE : Calm : N	3·0	0·04	153	10 : 10, sh.-r : 10, n, slt.-r, t	p.-cl, slt.-sh, so.-ha : 9, r : p.-cl, h, d
30	4·4	16·5	N : NW : NNW	NNW : N	1·6	0·11	246	9 : 9, m : 10	10 : p.-cl : p.-cl, h
Means	3·6	16·5	...	...	...	0·16	237		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 50°·8, being 4°·1 *lower* than
The mean *Temperature of the Dew Point* for the month was 47°·8, being 3°·1 *lower* than
The mean *Degree of Humidity* for the month was 80·7, being 7·1 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·333, being 0in·040 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·8, being 0gr·4 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 537 grains, being 6 grains *greater* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 8·5.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·216. The maximum daily amount of *Sunshine* was 13·8 hours on June 8.

The highest reading of the *Solar Radiation Thermometer* was 139°·4 on June 7; and the lowest reading of the *Terrestrial Radiation Thermometer* was 29°·0 on June 11.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 1·6; for the 6 hours ending 15h was 1·7; and for the 6 hours ending 21h was 0·6.

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

The *Greatest Pressure of the Wind* in the month was 8·9 lbs. on the square foot on June 22. The mean daily *Horizontal Movement of the Air* for the month was 237 miles; the greatest daily value was 503 miles on June 3; and the least daily value was 116 miles on June 27.

Rain (0in·005 or over) fell on 16 days in the month, amounting to 3in·671, as measured by gauge No. 6 partly sunk below the ground; being 1in·633 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
July 1	...	29·994	65·0	45·6	19·4	53·8	− 7·7	50·3	46·9	6·9	14·1	3·2	77	116·1	39·0	0·000	1·5	wP
2	...	30·060	72·9	46·2	26·7	56·9	− 4·7	53·1	49·6	7·3	17·1	1·9	76	135·6	39·0	0·000	0·0	wP : wP : wwP
3	Full : Greatest Declination S.	29·963	75·6	50·3	25·3	63·4	+ 1·6	56·6	50·9	12·5	20·2	3·6	64	138·0	40·0	0·000	6·0	wP
4	...	29·817	71·0	52·7	18·3	62·4	+ 0·3	58·3	54·8	7·6	16·7	0·8	76	128·5	42·6	0·245	0·0	wP, vN : wP : wP
5	...	29·853	72·7	46·1	26·6	59·7	− 2·6	54·7	50·3	9·4	16·4	1·5	71	129·2	35·0	0·002	10·5	wP : wP : wP, ssN
6	...	29·456	65·9	52·2	13·7	56·9	− 5·5	54·6	52·5	4·4	14·3	1·1	85	125·7	48·3	0·333	4·5	wwP : wP, wN : wP, vN
7	Perigee	29·414	65·2	51·9	13·3	56·0	− 6·4	52·8	49·8	6·2	13·5	1·6	80	122·2	47·5	0·171	0·0	wP : wP, vN
8	...	29·726	67·8	52·1	15·7	58·9	− 3·5	54·2	50·0	8·9	16·2	2·2	73	128·3	46·9	0·005	3·0	wP
9	In Equator	29·764	74·0	49·6	24·4	61·1	− 1·3	56·0	51·6	9·5	17·9	2·1	71	131·6	43·2	0·034	10·0	wP
10	Last Quarter	29·470	62·7	52·9	9·8	56·5	− 6·0	53·5	50·7	5·8	10·3	1·1	81	96·8	46·0	0·199	0·0	wP, wwN : vP, mN : vP, vN
11	...	29·659	61·0	49·8	11·2	53·3	− 9·4	50·4	47·5	5·8	11·8	2·5	81	113·0	43·2	0·094	0·0	wP : wP, wN
12	...	29·851	63·0	49·8	13·2	54·4	− 8·5	51·2	48·1	6·3	13·1	3·6	79	113·5	39·0	0·000	0·0	wwP : wP : wwP
13	...	29·904	71·6	49·6	22·0	60·7	− 2·4	57·4	54·6	6·1	13·1	1·4	81	121·3	39·0	0·136	2·0	wP : ... : vN, wP
14	...	29·938	73·0	58·1	14·9	63·8	+ 0·5	59·2	55·3	8·5	16·7	1·1	75	134·1	51·0	0·000	0·0	wP
15	...	29·924	73·3	54·6	18·7	62·1	− 1·3	57·7	53·9	8·2	16·2	1·4	75	138·0	49·7	0·049	8·0	wP, wN : wP : wP
16	Greatest Declination N.	29·744	66·5	54·0	12·5	59·7	− 3·7	57·8	56·2	3·5	7·2	0·9	89	85·4	51·6	0·428	6·0	wwP, wwN : wwP : wwP
17	New	29·876	76·5	60·9	15·6	66·1	+ 2·7	62·1	58·9	7·2	14·8	2·5	78	134·4	57·2	0·000	3·0	...
18	...	30·005	77·7	58·9	18·8	66·8	+ 3·5	61·7	57·6	9·2	18·7	2·9	73	136·0	55·8	0·000	0·0	...
19	...	30·060	74·9	54·1	20·8	63·4	+ 0·2	56·2	50·2	13·2	21·8	7·6	62	128·0	43·0	0·000	0·0	...
20	...	30·029	76·5	48·8	27·7	62·1	− 1·1	54·7	48·4	13·7	24·8	4·0	60	130·0	36·1	0·000	0·0	...
21	...	29·736	70·3	56·5	13·8	62·1	− 1·1	58·7	55·8	6·3	10·6	3·4	80	111·6	49·0	0·000	7·7	...
22	...	29·606	71·4	55·4	16·0	61·8	− 1·3	57·5	53·8	8·0	14·2	3·4	76	131·1	49·8	0·000	12·0	...
23	Apogee : In Equator	29·548	72·0	52·8	19·2	60·8	− 2·2	55·4	50·7	10·1	22·9	2·6	69	143·1	46·1	0·029	7·3	...
24	...	29·563	66·0	51·2	14·8	57·2	− 5·7	53·2	49·5	7·7	13·9	2·8	75	127·5	44·4	0·120	13·0	...
25	First Quarter	29·407	64·8	52·0	12·8	58·4	− 4·3	55·0	51·9	6·5	13·3	1·8	79	110·0	44·4	0·014	20·8	...
26	...	29·506	69·0	51·1	17·9	57·4	− 5·1	52·5	48·0	9·4	17·6	3·4	71	131·6	42·0	0·061	6·2	...
27	...	29·724	65·0	47·3	17·7	56·3	− 6·1	54·4	52·6	3·7	11·8	0·8	88	108·0	38·2	0·805	15·0	... : wP, wwN : wwP, wN
28	...	29·680	70·3	55·7	14·6	61·9	− 0·4	56·6	52·1	9·8	19·6	0·4	70	127·0	48·5	0·110	0·7	wwP, wwN : ... : wP
29	...	29·745	71·2	54·1	17·1	60·5	− 1·8	55·7	51·5	9·0	17·5	4·0	72	120·4	47·2	0·000	9·5	wP
30	Greatest Declination S.	29·672	69·4	56·8	12·6	60·6	− 1·7	57·7	55·2	5·4	13·0	1·9	83	112·0	49·0	0·308	0·8	wP : wP, wN : wP
31	...	29·765	76·0	57·0	19·0	64·1	+ 1·9	60·1	56·8	7·3	14·5	1·9	77	134·8	49·9	0·013	0·0	wP : wP, wN : wP
Means	...	29·757	70·1	52·5	17·6	60·0	− 2·7	55·8	52·1	7·9	15·6	2·4	75·7	124·0	45·2	Sum 3·156	4·8	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was $29^{in}\cdot757$, being $0^{in}\cdot042$ *lower* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 77°·7 on July 18; the lowest in the month was 45°·6 on July 1; and the range was 32°·1.
The mean of all the highest daily readings in the month was 70°·1, being 4°·1 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 52°·5, being 0°·8 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 17°·6, being 3°·3 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 60°·0, being 2°·7 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	miles.		
July 1	4·3	16·5	NNW	NNW : N : NNE	1·8	0·13	259	p.-cl : 10 : 10, cu.-s, n	p.-cl, slt.-sh : 4, ci, cu, n : 1, d
2	8·5	16·5	NNE : N : NNW	Variable : SE : S	1·0	0·01	144	p.-cl : p.-cl : 3, cu	6, ci, cu : p.-cl, cu, n : 2, d
3	12·5	16·5	S : SSW : SW	SW	2·3	0·17	281	1 : 1, h : 2,ci,ci.-cu,cu	2, ci.-cu, cu : p.-cl : p.-cl
4	5·3	16·4	SW : WSW : N	N	1·5	0·09	237	10 : 10, hy.-r : 9	p.-cl, cu : 4 : 1, d
5	3·8	16·4	N : WSW : SW	SW : SSW	1·8	0·06	203	1, d : p.-cl : p.-cl, ci.-s, cu, n, so.-ha	9, cu, n : 10, slt.-sh
6	2·4	16·4	SSW : SW : WSW	SW : W : NW	2·4	0·15	287	10, m.-r : p.-cl : 9, ci.-s, cu.-s, so.-ha	9, r : 10, n, c.-r : 10, r
7	2·2	16·4	W : WNW : NW	NNW : NW : WNW	8·0	0·27	334	9 : 10 : 9,cu.-s, n, sh.-r	9, hy.-sh, hl, l, t, w: 10, hy.-sh, l,t: 10, sh.-r
8	5·7	16·4	NNW	NNW : NW	7·8	0·56	416	p.-cl : 10, slt.-r : ci, cu, n, w	9, cu, n : p.-cl : 0
9	11·2	16·3	NW : W	WSW : SW : SSW	3·8	0·30	370	1 : li.-cl,ci,ci.-s: ci, ci.-s, cu	5, ci, ci.-s, ci.-cu : p.-cl, li.-shs, so.-ha: 10, r
10	0·6	16·3	SW : W : NW	WNW : NE : NNW	3·5	0·21	306	10, r : 10, fq.-shs : 10, n	9, li.-shs, t : 9, n, li.-shs : 9, slt.-sh
11	1·4	16·3	WNW:WSW:NNW	N : NNW	4·8	0·36	312	p.-cl : 9, slt.-sh : 9, r, hy.-sh	10, r : 10, li.-shs : 10, r
12	3·1	16·2	NNW : N	N : SSE	2·7	0·24	282	10 : 10, slt.-r : 10	p.-cl : 5, ci.-cu, cu : 2, d
13	3·7	16·2	SW : WSW	SW : WSW	5·5	0·07	242	p.-cl : p.-cl : 9, ci.-cu, cu, cu.-s	9, li.-shs, t : p.-cl, t.-sm, hy.-sh, sq, so.-ha : 9, th.-cl
14	6·1	16·2	WSW	WSW : W	1·9	0·16	303	9 : 9 : 8, cu, n	p.-cl, ci.-s, cu, so.-ha : ci, ci.-cu, s : 10,th.-cl, slt.-sh
15	6·8	16·1	WSW	WSW : W : SW	2·0	0·12	262	10, r : p.-cl,sh.-r: 6, cu	ci, ci.-cu, ci.-s, cu, so.-ha : 10 : 9, d
16	0·0	16·1	WSW : SW	WSW : W	4·1	0·50	416	10 : 10, c.-r : 10, sc, s, fq.-r	10, sc, s, th.-r: 10, sc : 10
17	4·1	16·1	W : WSW	W : WSW	2·3	0·15	322	10 : 10 : 10, n	p.-cl, cu, n : p. cl, cu, n : 9
18	8·1	16·0	WSW	W : WSW	2·5	0·27	343	10 : 10 : ci, ci.-s, cu, cu.-s	7, ci, ci.-cu,cu.-s: p.-cl, ci, cu : 9
19	13·1	16·0	NW : N	NW : NNW : N	1·9	0·08	208	p.-cl : 1 : 4, cu	cu : cu : p.-cl
20	14·1	16·0	NNW : SW : W	WSW : SW	2·7	0·13	271	1 : 1, ci, ci.-cu, so.-ha	1, ci, ci.-cu, ci.-s : 1
21	1·0	15·9	WSW : SW	SW : WSW	2·7	0·44	390	p.-cl : 10 : 10,sc,n,slt.-sh	10, n : p.-cl, ci, cu : 10
22	5·9	15·9	SW : WSW	SW : SSW	4·6	0·54	427	10 : 9 : 9, cu, n	p.-cl, cu, cu.-s, n : 10, slt.-r
23	8·8	15·8	SW : WSW	SW	4·4	0·52	420	p.-cl, slt.-r : p.-cl, cu	8, ci.-s, cu,n,li.-shs: 9, w : 9, sh.-r
24	12·0	15·8	SW	WSW : SW : SSW	7·0	0·68	484	1 : p.-cl, w : p.-cl,shs.-r,w	v, fq.-r : p.-cl, cu : p.-cl
25	2·5	15·7	SSW : S	SSW : SW : WSW	6·0	0·44	425	9 : 10 : 9, w	10, n, slt.-r,w: p.-cl, so.-ha, w: p.-cl, slt.-sh, w,d
26	10·1	15·7	SW : WSW	WSW : SW	8·2	0·50	463	p.-cl : p.-cl : 7, ci, cu, n,sh.-r,w	p.-cl, ci, ci.-s, cu, so.-ha, w : p.-cl, fq.-shs, t, so.-ha, prh : 1
27	0·9	15·6	SW : SSW	SSW : SSE	3·5	0·08	246	1, m : 9 : 10,s,n,li.-shs	10, r : 10, c.-r : 10, hy.-r, t
28	8·4	15·6	SSW : SW : NNW	NW : WSW	4·5	0·22	324	10, r : 9, w : 8, cu	7, cu, n : 6, cu : p.-cl
29	2·1	15·5	WSW : SW	WSW : SW	4·6	0·32	410	9 : 9 : 10, cu, n	8,ci.-cu,cu,n: p.-cl : p.-cl, w
30	4·3	15·5	WSW	WSW : NW	4·9	0·27	358	p.-cl,sh.-r: 9, slt.-r : 10, sc,s, m.-r	p.-cl, sc, n, hy.-sh : p. cl, ci, cu, s: p.-cl, d
31	6·1	15·4	SW : SSW : WSW	SW : WSW	9·2	0·58	434	p.-cl : p.-cl : 8, li.-shs	8, cu, n, w : p.-cl, w : 8, d
Means	5·8	16·1	...	...	...	0·28	328		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 55°·8, being 2°·1 *lower* than
The mean *Temperature of the Dew Point* for the month was 52°·1, being 1°·7 *lower* than
The mean *Degree of Humidity* for the month was 75·7, being 2·9 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·389, being 0in·026 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·3, being 0gr·3 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 529 grains, being 2 grains *greater* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7·6.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·360. The maximum daily amount of *Sunshine* was 14·1 hours on July 20.

The highest reading of the *Solar Radiation Thermometer* was 143°·1 on July 23; and the lowest reading of the *Terrestrial Radiation Thermometer* was 35°·0 on July 5.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 2·0; for the 6 hours ending 15h was 1·6; and for the 6 hours ending 21h was 1·2.

The *Proportions of Wind* referred to the cardinal points were N. 6, E. 0, S. 9, and W. 16.

The *Greatest Pressure of the Wind* in the month was 9·2 lbs. on the square foot on July 31. The mean daily *Horizontal Movement of the Air* for the month was 328 miles; the greatest daily value was 484 miles on July 24; and the least daily value was 144 miles on July 2.

Rain (0in·005 or over) fell on 18 days in the month, amounting to 3in·156, as measured by gauge No. 6 partly sunk below the ground; being 0in·757 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Aug. 1	Full	29·845	70·5	57·5	13·0	61·1	− 1·1	59·6	58·3	2·8	9·4	0·0	91	129·3	50·8	0·243	0·0	wwP : wwP : wwN, wwP
2	...	29·856	62·7	51·7	11·0	56·2	− 5·9	53·3	50·6	5·6	11·2	0·4	82	114·0	48·1	0·017	4·0	wwP : wP : wP
3	...	30·045	65·3	46·9	18·4	54·3	− 7·8	49·8	45·4	8·9	17·5	2·3	72	134·7	38·2	0·000	6·0	wP
4	Perigee	30·045	75·3	48·3	27·0	61·2	− 0·9	56·0	51·5	9·7	17·0	3·0	71	137·9	37·4	0·000	6·0	wP
5	...	30·075	77·1	49·9	27·2	63·2	+ 1·1	58·3	54·2	9·0	17·0	1·4	73	119·0	40·0	0·000	0·0	wP
6	In Equator	30·042	77·8	50·1	27·7	64·4	+ 2·2	58·9	54·3	10·1	20·7	1·0	70	135·4	39·2	0·000	3·0	wP
7	...	29·953	79·9	51·6	28·3	65·4	+ 3·2	60·6	56·7	8·7	19·7	1·4	74	136·8	40·5	0·000	6·0	wP
8	Last Quarter	29·913	77·2	52·0	25·2	66·2	+ 3·9	59·9	54·8	11·4	22·7	0·9	67	138·1	39·9	0·000	0·0	wP
9	...	29·872	80·2	52·6	27·6	64·5	+ 2·2	60·0	56·3	8·2	20·2	1·3	74	136·3	44·0	0·000	0·0	wP
10	...	30·018	79·7	52·1	27·6	65·3	+ 3·0	60·0	55·7	9·6	20·7	1·1	72	129·2	40·6	0·000	10·0	wP
11	...	30·095	80·9	52·2	28·7	65·7	+ 3·3	61·7	58·4	7·3	19·9	0·4	78	128·7	39·7	0·000	0·0	wP
12	Greatest Declination N.	30·033	86·2	54·3	31·9	71·0	+ 8·5	63·4	57·6	13·4	29·4	1·7	63	135·0	44·6	0·000	0·0	wP
13	...	29·958	80·0	59·2	20·8	68·8	+ 6·3	62·1	56·8	12·0	18·7	6·1	64	133·6	47·3	0·000	5·0	wP : vP : wP
14	...	30·010	81·1	56·5	24·6	68·1	+ 5·6	63·0	59·0	9·1	16·8	1·8	73	135·9	47·8	0·000	0·0	wP
15	New	29·887	85·7	57·7	28·0	70·7	+ 8·3	65·8	62·0	8·7	21·4	1·4	74	143·6	47·5	0·000	11·0	wwP
16	...	29·599	79·0	59·1	19·9	66·7	+ 4·4	63·8	61·5	5·2	14·5	2·1	83	108·0	47·4	0·032	8·0	wwP : vP, vN : wP
17	...	29·552	71·7	52·6	19·1	60·9	− 1·2	57·1	53·9	7·0	16·7	0·0	78	113·9	41·0	0·363	13·7	wP : wP : wN, wP
18	...	29·389	70·3	56·5	13·8	62·7	+ 0·8	58·9	55·7	7·0	14·0	0·0	78	127·2	50·0	0·097	10·5	wP : vP, vN : wP
19	Apogee : In Equator	29·840	74·0	56·1	17·9	63·1	+ 1·4	58·8	55·2	7·9	16·0	1·7	76	131·6	49·6	0·004	13·8	wP
20	...	29·804	66·1	57·1	9·0	60·5	− 1·0	59·1	57·9	2·6	5·7	0·0	92	89·8	51·7	0·272	18·0	wP : wP : wwN, wP
21	...	29·510	68·2	50·7	17·5	59·2	− 2·1	54·3	49·9	9·3	16·7	0·0	72	133·3	43·0	0·055	4·0	wP : wP : mP
22	...	29·535	66·1	46·3	19·8	54·3	− 6·8	50·4	46·6	7·7	16·5	1·8	75	127·0	36·0	0·001	0·0	wP : wP, vN : wP
23	...	29·635	67·1	45·2	21·9	57·7	− 3·2	55·5	53·5	4·2	12·4	0·2	86	122·2	36·0	0·031	9·5	wP
24	First Quarter	29·613	71·5	56·5	15·0	61·8	+ 1·0	60·0	58·5	3·3	12·6	0·0	89	130·0	55·0	0·474	4·5	wwP : wP, wwN : wP, wN
25	...	29·578	69·2	55·6	13·6	60·0	− 0·7	57·8	55·8	4·2	8·5	0·0	87	128·0	51·9	0·195	0·0	wP : vP, vN : wP
26	...	29·815	61·6	53·1	8·5	56·2	− 4·5	54·3	52·5	3·7	6·5	1·1	88	82·9	44·0	0·000	0·0	wP
27	Greatest Declination S.	29·938	67·1	47·5	19·6	58·8	− 1·8	54·5	50·6	8·2	14·1	1·2	74	119·1	39·3	0·000	0·0	wP
28	...	30·030	72·1	53·3	18·8	59·3	− 1·1	55·0	51·2	8·1	18·0	1·0	75	114·1	38·8	0·000	5·0	wP
29	...	29·831	71·7	49·0	22·7	60·0	− 0·3	55·7	51·9	8·1	15·8	0·8	74	128·7	38·1	0·000	10·0	wP
30	...	29·643	64·3	52·0	12·3	56·2	− 3·9	51·3	46·7	9·5	20·0	1·0	71	116·4	46·6	0·018	6·5	wP : mP : mP
31	Full	29·570	60·0	44·7	15·3	52·5	− 7·4	48·4	44·3	8·2	15·2	1·9	74	94·2	41·7	0·000	1·5	wP : mP : mP
Means	...	29·824	72·9	52·5	20·4	61·8	+ 0·2	57·7	54·1	7·7	16·3	1·2	76·5	124·3	43·7	Sum 1·802	5·0	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was $29^{in}\cdot824$, being $0^{in}\cdot041$ *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 86°·2 on August 12; the lowest in the month was 44°·7 on August 31; and the range was 41°·5.
The mean of all the highest daily readings in the month was 72°·9, being 0°·2 *higher* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 52°·5, being 0°·5 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 20°·4, being 0°·7 *greater* than the average for the 65 years, 1841–1905.
The mean for the month was 61°·8, being 0°·2 *higher* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Aug. 1	0·5	15·4	WSW : NE : SE	SE : SW	0·3	0·00	125	9 : 10 : 9, cu, n	10,s,r,hy.-sh,glm: p.-cl, fq.-r : p.-cl
2	1·3	15·3	NW : N : NNW	N	6·9	0·39	385	9 : 9 : 9, oc.-slt.-r, w	10, cu.-s, n, sc, oc.-shs, w : 10 : p.-cl
3	6·9	15·3	N : NNW	N : SW : SSW	1·7	0·04	220	p.-cl : 9 : 8, ci, cu, n	7, ci, ci.-cu, cu: ci.-cu, ci.-s, cu, so.-ha : ci.-s, h, hy.-d
4	7·7	15·2	SSW : SW	SW	0·6	0·01	196	9 : 9 : p.-cl, th.-cl	7, ci.-cu, cu : 3, ci.-cu, cu: 1, hy.-d
5	10·9	15·2	SW : Calm	Variable : ESE : Calm	0·1	0·00	119	1, hy.-d : 0, h : 7, h	8, cu, h : 1 : 0, h, hy.-d
6	14·1	15·1	E : Calm : NE	ENE : ESE : E	1·0	0·03	153	0, h, hy.-d: 0, h : 2, cu, h	3, cu : 1 : 1, s
7	13·0	15·1	Calm : NE : ENE	E : ESE	0·4	0·00	108	0, m : 1, s, h : 2, ci.-cu, cu	2, ci.-cu, li.-cl: 2 : 1, s, h, d
8	13·6	15·0	NE : ENE	E : ENE	1·6	0·08	206	0, h, m : 1 : 3, ci, ci.-s	1, ci, ci.-s : 1, ci, ci.-s, s : 0, l
9	9·4	15·0	ENE : NE	NE : ESE	1·1	0·02	168	0, m : m : 4, cu, li.-cl	4, ci.-s, cu : 0 : 0, hy.-d
10	13·2	14·9	Variable : Calm : NE	NE : ESE	0·8	0·02	148	0 : 0, m : 0	0 : 0, hy.-d : 9
11	12·0	14·8	Calm : SW	SW : NW : NNW	0·2	0·00	110	9 : p.-cl, m : 0, h	3, cu, n : th.-cl : 0, h, hy.-d
12	13·1	14·8	Variable : SW : WSW	WSW : SW	0·9	0·02	184	0, h, hy.-d: 0, h : h	0 : 1, d
13	9·8	14·7	SW : W : WNW	NNW : NW : N	1·7	0·10	250	th.-cl, d : 1, h : 5, cu, li.-cl	8, ci, cu : p.-cl, ci, ci.-cu, cu : 9
14	10·4	14·7	NW : SW : W	Variable	1·4	0·09	217	1 : p.-cl : 8, cu, n, h	5, cu, cu.-s, n: 2, cu, n, s : 0, hy.-d
15	11·0	14·6	ESE : SSE : SSW	SW : SSW : SSE	0·9	0·02	149	p.-cl, hy.-d: p.-cl : 4, cu	3, cu : 1, ci, cu : 1, hy.-d
16	0·0	14·5	Variable : Calm : SW	SSW : SW	2·8	0·12	218	0, hy.-d : p.-cl, s : 10, s, so.-ha	10, s, n, fq.-r : 10, s, n : p.-cl
17	5·6	14·5	NW : W : SW	S : SE : E	3·1	0·11	207	p.-cl : ci.-s : 9, so.-ha	9, cu : 10, r : 10, slt.-r, t
18	8·9	14·4	E : SE : S	W : WNW : SW	6·8	0·39	371	p.-cl, r : p.-cl : 8, ci.-s, cu, fq.-shs	8, cu, n, slt.-sh : p.-cl, w : p.-cl
19	8·3	14·4	SW	WSW : W : SW	4·7	0·39	430	9 : p.-cl : 9, ci, cu, sc, w	p.-cl, sh.-r, w: 4, cu, n : p.-cl, hy.-d
20	0·0	14·3	SW	SW	4·9	0·34	398	1, d : p.-cl : 10, slt.-r	10, sc, n, r : 10, sc, n, r : 9, oc.-shs, l, t
21	6·4	14·3	NW : NNW	WSW : W : NNW	1·6	0·05	205	10, oc.-slt.-r: p.-cl : 7, ci, ci.-s, ci.-cu, cu	7, ci, cu, n, : cu, n : p.-cl, d, l
22	9·3	14·2	WNW : WSW : W	W : NW : SW	2·6	0·10	283	p.-cl, d : li.-cl : 6	9, li.-shs : p.-cl : 0, hy.-d
23	2·0	14·1	SW : SSW : S	SSW : SW	3·0	0·20	305	p.-cl, hy.-d: 9 : 9, ci, cu, n	10, sc, n, r : 10, sc, n, oc.-slt.-r: 10, l
24	1·1	14·1	SSW : SW : WSW	SW : WSW	2·5	0·12	253	10, slt.-r : 10 : 9	10, r : 10, c.-r
25	3·0	14·0	WSW : SW	WNW : W : NW	1·9	0·05	225	10 : 10 : 9, cu, n, l, t	9, hy.-sh, l, t, so.-ha: 9, cu, n, t : 10
26	0·0	13·9	NNW : N	N : Calm : SSW	1·4	0·07	193	10 : 10, slt.-sh : 10	10, n : 9, slt.-m
27	3·6	13·9	NNW : WSW	W : N	0·9	0·02	150	9, m : p.-cl : 8	10, n : p.-cl
28	11·2	13·8	N : Calm : WSW	WSW : W : SW	0·7	0·03	153	p.-cl, m, d: th.-cl, h : 0, h	0 : c : 1, th.-cl, lu.-ha, d
29	11·4	13·8	SW : WSW	SW	2·6	0·13	268	1, d : li.-cl, m : 5, ci.-s, cu	8, cu : p.-cl : 10
30	5·4	13·7	WSW : NNW	NNW : WNW : WSW	3·6	0·23	326	10, li.-shs : 9 : 8, ci.-s, ci.-cu, so.-ha	8, ci.-s, ci.-cu, cu, so.-ha : 10, n : p.-cl, d
31	4·4	13·6	WSW : WNW : NW	NNW : N : SW	4·6	0·39	366	p.-cl : p.-cl : 9, cu.-s, n	9, cu, n, oc.-slt.-r : p.-cl, d
Means	7·3	14·5	...	...	...	0·11	229		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 57°·7, being 0°·2 *higher* than
The mean *Temperature of the Dew Point* for the month was 54°·1, being 0°·1 *higher* than
The mean *Degree of Humidity* for the month was 76·5, being 0·2 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·419, being 0in·001 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·6, being the *same* as
The mean *Weight of a Cubic Foot of Air* for the month was 528 grains, being the *same* as
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 5·9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·505. The maximum daily amount of *Sunshine* was 14·1 hours on August 6.

The highest reading of the *Solar Radiation Thermometer* was 143°·6 on August 15; and the lowest reading of the *Terrestrial Radiation Thermometer* was 36°·0 on August 22 and 23.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 1·0; for the 6 hours ending 15h was 2·7; and for the 6 hours ending 21h was 1·3.

The *Proportions of Wind* referred to the cardinal points were N. 6, E. 4, S. 8, and W. 11. Two days were calm.

The *Greatest Pressure of the Wind* in the month was 6·9 lbs. on the square foot on August 2. The mean daily *Horizontal Movement of the Air* for the month was 229 miles; the greatest daily value was 430 miles on August 19; and the least daily value was 108 miles on August 7.

Rain (0in·005 or over) fell on 11 days in the month, amounting to 1in·802, as measured by gauge No. 6 partly sunk below the ground; being 0in·542 *less* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Sept. 1	Perigee	29·722	59·0	43·0	16·0	49·9	− 9·9	46·7	43·3	6·6	14·2	2·3	78	109·0	33·9	0·060	0·0	mP : vP, ssN : mP
2	In Equator	29·898	64·8	37·1	27·7	50·6	− 9·1	47·2	43·6	7·0	18·9	0·7	78	122·5	29·7	0·000	0·0	mP
3	...	30·032	69·9	44·1	25·8	56·7	− 2·9	51·3	46·3	10·4	18·8	3·0	68	133·3	33·3	0·000	7·5	wP : mP : mP
4	...	29·794	62·0	54·1	7·9	57·5	− 2·0	55·2	53·1	4·4	7·9	0·2	85	90·1	48·2	0·219	4·5	wP : wP, mN : wP
5	...	29·791	64·3	47·9	16·4	55·4	− 4·0	51·1	47·0	8·4	17·3	0·6	74	116·0	39·9	0·014	1·0	wP
6	Last Quarter	29·615	71·0	48·1	22·9	59·5	+ 0·3	56·0	52·9	6·6	17·3	1·1	80	121·5	41·1	0·034	6·5	wP
7	...	29·516	63·2	48·9	14·3	54·6	− 4·4	50·5	46·6	8·0	13·6	2·7	74	115·4	43·0	0·014	4·5	wP : vP, vN : mP
8	Greatest Declination N.	29·750	56·0	40·6	15·4	49·6	− 9·2	48·1	46·5	3·1	8·9	1·3	89	98·0	29·4	0·135	0·0	mP : vP, vN : mP
9	...	29·932	61·8	46·6	15·2	53·8	− 4·8	50·9	48·1	5·7	11·5	2·3	81	105·0	38·5	0·000	0·0	wP
10	...	29·813	60·0	45·4	14·6	54·0	− 4·4	52·4	50·8	3·2	7·1	1·7	89	73·8	37·5	0·032	0·0	wP : wwP
11	...	29·723	65·4	53·3	12·1	58·9	+ 0·8	56·3	54·0	4·9	10·9	0·6	83	111·2	45·1	0·102	6·0	wwP : wwP : wP
12	...	29·798	66·4	51·6	14·8	58·3	+ 0·3	55·8	53·5	4·8	11·2	0·6	84	123·0	44·2	0·000	0·0	wP
13	...	29·849	57·0	52·1	4·9	54·2	− 3·6	52·7	51·2	3·0	5·6	1·4	90	65·1	49·0	0·402	0·0	wwP, wwN : wP : wP
14	New	30·084	56·5	46·7	9·8	52·8	− 4·9	49·4	46·0	6·8	10·5	2·4	78	74·0	37·6	0·000	0·0	wP : wP : mP
15	...	30·053	63·4	44·3	19·1	54·0	− 3·6	51·1	48·3	5·7	12·0	0·2	81	111·4	34·5	0·000	0·0	wP : wP : wwP
16	In Equator : Apogee	29·912	63·6	51·3	12·3	56·5	− 1·0	54·7	53·1	3·4	8·9	1·0	88	121·1	48·8	0·106	0·0	wwP, wwN : wwP : wwP
17	...	29·903	69·0	53·1	15·9	58·7	+ 1·5	57·2	55·9	2·8	11·2	0·6	90	117·8	44·2	0·070	1·0	vP, vN : wwP, wN : wwP
18	...	29·955	64·1	47·0	17·1	56·2	− 0·7	53·4	50·8	5·4	12·6	1·4	82	121·2	37·0	0·000	0·0	wP
19	...	29·934	65·8	45·1	20·7	55·8	− 0·7	53·0	50·4	5·4	11·1	0·8	83	94·0	35·7	0·000	0·0	wwP : wP : wP
20	...	29·859	64·2	45·7	18·5	54·4	− 1·8	52·1	49·8	4·6	10·9	0·8	84	99·9	36·1	0·001*	0·0	wP
21	...	29·769	62·7	40·6	22·1	51·1	− 4·8	48·5	45·8	5·3	13·3	0·9	82	116·2	30·2	0·000	2·0	wP
22	First Quarter	29·726	68·0	46·2	21·8	57·9	+ 2·3	55·8	53·9	4·0	10·4	0·4	86	108·0	37·6	0·198	0·0	wP : wwP : vP, vN
23	Greatest Declination S.	29·847	64·7	55·3	9·4	59·0	+ 3·6	58·3	57·7	1·3	4·3	0·4	96	81·1	48·0	0·077	1·0	wwP, wN : wwP
24	...	29·994	68·6	52·3	16·3	59·6	+ 4·3	56·5	53·8	5·8	13·7	0·2	82	124·8	44·5	0·003	3·0	wwP
25	...	29·952	64·2	53·7	10·5	57·2	+ 2·0	56·0	54·9	2·3	7·4	1·0	92	92·0	45·6	0·286	0·0	wwP : wP, wN : wP
26	...	30·002	62·8	46·6	16·2	54·6	− 0·6	52·7	50·9	3·7	8·1	1·6	87	92·2	37·5	0·160	0·0	wP
27	...	30·028	58·2	43·1	15·1	50·0	− 5·1	47·6	45·1	4·9	11·4	1·5	84	104·0	34·5	0·000	3·0	wP
28	...	29·885	54·1	43·1	11·0	50·3	− 4·6	49·8	49·3	1·0	3·7	0·2	96	64·0	34·9	0·225	0·0	wP : wwP, wN : wwP, wwN
29	Full : Perigee : In Equator	29·709	57·0	50·4	6·6	53·4	− 1·3	53·0	52·6	0·8	2·5	0·2	97	76·9	43·2	0·339	0·0	wwP, wwN : wwP, wwN : wwP
30	...	29·728	57·0	48·1	8·9	51·9	− 2·5	51·0	50·1	1·8	4·1	0·0	94	78·5	35·4	0·000	0·0	wP
Means	...	29·852	62·8	47·5	15·3	54·9	− 2·4	52·5	50·2	4·7	10·6	1·1	84·5	102·0	39·3	2·477	1·3	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

* Rainfall (Column 16). Amount entered on September 20 is derived from dew.

The mean reading of the *Barometer* for the month was 29in·852, being 0in·041 *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 71°·0 on September 6; the lowest in the month was 37°·1 on September 2; and the range was 33°·9.
The mean of all the highest daily readings in the month was 62°·8, being 4°·5 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 47°·5, being 1°·6 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 15°·3, being 2°·9 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 54°·9, being 2°·4 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Sept. 1	4·6	13·5	WSW : NW	WSW : WNW : NW	3·1	0·14	292	li.-cl : li.-cl : 9, cu, n	10, fq.-r : p.-cl, oc.-r : 2, h, d
2	7·0	13·5	NNW : SW : N	N : Variable : SW	0·3	0·00	126	h, m : f : p.-cl, slt.-f	5, cu : p.-cl, hy.-d
3	8·9	13·4	SW : WSW	WSW : W : SW	2·0	0·08	271	1 : 0 : 1, cu	p.-cl, cu, n : 9 : p.-cl
4	0·0	13·4	SW : WSW	SW : WSW	4·8	0·23	361	p.-cl : 10 : 10, sc, n, s, r	10, sc, n, s, th.-r : 10, r : 10, th.-r
5	11·4	13·3	N : NNW	NW : W : SSW	2·1	0·10	255	p.-cl, hy.-sh : 1 : 3, cu, n	3, cu : p.-cl, ci, ci.-cu, cu : p.-cl, d
6	5·6	13·2	SSW : SW	SW : WSW	8·3	0·51	462	9 : 10, m.-r : 10, sc, slt.-sh	p.-cl, so.-ha, w : p.-cl, w : 0
7	5·6	13·2	SW : W	W : N : NNW	4·0	0·30	376	0 : p.-cl : 8, cu, n	9, cu, n, li.-shs : 10, li.-shs : p.-cl, h
8	3·9	13·1	NNW : WSW : N	N : NNE	2·3	0·06	213	p.-cl, h, d : p.-cl : 7, th.-r	10, sc, n, th.-r : p.-cl, r : p.-cl, d
9	2·9	13·0	N	NNE : NE : ENE	2·7	0·13	277	p.-cl : 10 : 9, sc, cu, n	9, cu, n : p.-cl : 1, d
10	0·0	13·0	NE : NNE	NE : NNE	7·0	0·32	382	0 : p.-cl, r : 10, r	10, n, s, w : 10 : 10
11	5·6	12·9	NNE : E : SE	SE : E	3·8	0·13	228	10, slt.-r : 10, r : 9, cu, n	7, cu, n : p.-cl, ci, ci.-cu : 0, d
12	8·7	12·9	ENE : NE	N : NNW	1·2	0·05	207	o, m, slt.-f, hy.-d : 0 : 2, cu, li.-cl, h	7, cu, s : p.-cl : 9
13	0·0	12·8	N : NNW	NNE : N	6·4	0·36	402	9, r : 10, r : 10, sc, n, r	10, sc, n, r, w : 10, fq.-r : 10, w
14	0·0	12·7	NNE : NE	NE : NNE	4·7	0·20	330	9 : 10	10 : 10 : p.-cl
15	2·6	12·7	N : NNE : NE	NE : E	1·1	0·03	198	p.-cl : p.-cl, m : 9, ci, cu, n	8, ci, ci.-cu, cu : p.-cl, d : 9
16	1·6	12·6	NNE : SE	ESE : E	0·5	0·02	172	10, r : 10, slt.-r : 9, cu, n	p.-cl : p.-cl, m : 9, d
17	3·6	12·5	E : ENE	E : ENE	1·5	0·03	176	9, r, m : 10, slt.-r : cu, li.-cl	p.-cl, slt.-r, t : 10, n : 10
18	4·4	12·5	NNE : NE	NNE : N	0·8	0·01	152	9 : 9 : 8, cu	7, cu, cu.-s : p.-cl : 0, d
19	5·1	12·4	Calm : SW : WSW	NW : WNW : WSW	0·2	0·00	150	p.-cl, slt.-f : 9 : 7, cu, slt.-m, h	2, cu, h : 0, h : 0, hy.-d
20	3·4	12·3	WSW : SW	N : NE : E	0·6	0·01	175	0, hy.-d : 1, h : 7, glm	9, slt.-sh : p.-cl : p.-cl, hy.-d
21	3·8	12·3	Calm : E	SE : SSE : ESE	0·4	0·00	113	p.-cl : 9 : 9, cu.-s	7, ci.-s, cu, n : p.-cl : 9, d
22	7·7	12·2	E	E	0·7	0·04	174	p.-cl : p.-cl : 0, h	4, ci.-s, cu : p.-cl : 10, l, t, r
23	0·2	12·1	ENE : NE : Calm	Calm : S : SSW	1·6	0·00	120	10, oc.-r : 10, m, t : 10, m, hy.-r, l, t	10, n, r, slt.-sh : 10, cu.-s, n : p.-cl
24	6·8	12·1	SSW : S	SW : SSW	3·1	0·18	282	p.-cl, slt.-sh : p.-cl : 5, ci.-s, cu	7, cu, n : p.-cl : 9, d
25	0·7	12·0	SW : SSW : WSW	WSW : NW : NNW	1·6	0·03	202	9 : 10, r : 9, sc, n, slt.-sh	9, n, fq.-r : 9, hy.-r : p.-cl
26	0·8	12·0	NNW : N	NNW : N : NNE	2·3	0·12	240	10, sh.-r : 10 : 10	p.-cl, hy.-sh : p.-cl, cu, s : h, lu.-ha, d
27	1·0	11·9	NNW : N : NE	NE : SE : S	0·2	0·00	125	p.-cl, d : 10 : 9, ci, cu, so.-ha	9, ci, ci.-s, cu : p.-cl : p.-cl, h, d
28	0·0	11·8	Calm : Variable	S : SSE	0·0	0·00	99	9 : 10 : 10, c.-r	10, c.-r : 10, c.-r : 10, oc.-slt.-r
29	0·0	11·8	S : SSE : SE	ESE : E : NE	0·1	0·00	118	10, r : 10, r : 10, n, s, r	10, r : 9, slt.-m : p.-cl, slt.-m
30	0·3	11·7	N : Variable : Calm	SSW : Calm : SE	0·1	0·00	89	p.-cl, f : 9, s	10 : p.-cl, slt.-m, d
Means	3·5	12·6	...	...	...	0·10	226		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 52°·5, being 1°·6 *lower* than
The mean *Temperature of the Dew Point* for the month was 50°·2, being 1°·0 *lower* than
The mean *Degree of Humidity* for the month was 84·5, being 4·3 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·364, being 0in·013 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·1, being 0gr·1 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 536 grains, being 3 grains *greater* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7·2.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·280. The maximum daily amount of *Sunshine* was 11·4 hours on September 5.

The highest reading of the *Solar Radiation Thermometer* was 133°·3 on September 3; and the lowest reading of the *Terrestrial Radiation Thermometer* was 29°·4 on September 8.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 0·5; for the 6 hours ending 15h was 0·8; and for the 6 hours ending 21h was 0·0.

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

The *Greatest Pressure of the Wind* in the month was 8·3 lbs. on the square foot on September 6. The mean daily *Horizontal Movement of the Air* for the month was 226 miles; the greatest daily value was 462 miles on September 6; and the least daily value was 89 miles on September 30.

Rain (0in·005 or over) fell on 17 days in the month, amounting to 2in·477, as measured by gauge No. 6 partly sunk below the ground; being 0in·329 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Phases of the Moon.	Barometer. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Temperature. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	Temperature. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Oct. 1	...	29·477	66·0	49·2	16·8	57·5	+ 3·4	56·1	54·8	2·7	7·0	0·2	91	102·4	36·4	0·001	1·0	wwP
2	...	29·628	65·8	51·4	14·4	57·5	+ 3·8	56·3	55·2	2·3	8·1	0·0	92	108·0	42·8	0·000	0·2	wwP
3	...	29·611	66·2	57·2	9·0	61·0	+ 7·7	59·4	58·0	3·0	4·5	0·6	90	82·0	55·3	0·092	2·3	wwP
4	...	29·514	68·0	56·3	11·7	61·1	+ 8·1	58·8	56·8	4·3	9·5	0·4	86	111·0	50·9	0·107	5·7	...
5	...	29·312	66·0	48·3	17·7	58·1	+ 5·3	55·7	53·5	4·6	10·8	0·8	85	103·4	41·1	0·210	9·8	...
6	Greatest Declination N.: Last Quarter	29·679	62·0	42·2	19·8	51·6	− 0·9	47·9	44·2	7·4	14·4	1·3	76	106·6	33·9	0·000	0·0	wP
7	...	29·701	62·0	42·2	19·8	54·5	+ 2·2	51·5	48·6	5·9	14·6	1·0	80	102·5	31·3	0·040	11·5	wwP
8	...	29·573	65·0	46·9	18·1	57·5	+ 5·5	54·0	50·8	6·7	11·1	0·4	78	112·6	37·2	0·561	4·5	wwP, wwN : wwP, wwN : wP
9	...	30·066	62·9	39·2	23·7	51·2	− 0·4	47·4	43·5	7·7	14·8	2·0	75	108·5	28·6	0·001	1·5	wwP : wP : wP
10	...	29·902	64·2	50·3	13·9	56·1	+ 4·8	53·7	51·4	4·7	9·9	1·0	85	108·0	45·5	0·066	21·5	wwP
11	...	29·702	65·9	53·1	12·8	58·4	+ 7·5	55·4	52·7	5·7	15·7	1·5	81	114·2	47·0	0·148	16·0	wwP : wwP : wP, vN
12	...	29·651	63·9	46·2	17·7	56·6	+ 6·0	53·4	50·4	6·2	11·4	0·8	80	106·2	35·1	0·000	12·5	wP
13	In Equator: Apogee	29·613	62·3	47·2	15·1	56·3	+ 6·0	53·5	50·9	5·4	9·3	2·9	82	88·6	39·0	0·097	11·5	wwP : wwP, wN : wP
14	New	29·812	62·1	39·7	22·4	52·7	+ 2·6	49·0	45·3	7·4	14·2	1·7	77	108·0	28·9	0·000	1·7	wP
15	...	29·615	60·8	54·2	6·6	57·8	+ 7·9	55·3	53·0	4·8	8·0	2·1	84	69·9	50·0	0·147	19·3	...
16	...	29·511	64·0	57·8	6·2	59·3	+ 9·5	58·7	58·2	1·1	3·7	0·8	96	85·9	55·8	0·124	7·5	...
17	...	29·369	63·0	52·1	10·9	58·2	+ 8·6	56·9	55·7	2·5	9·5	0·9	91	92·5	44·6	0·140	6·0	...
18	...	29·563	61·8	50·5	11·3	56·6	+ 7·3	55·1	53·8	2·8	6·1	0·6	90	80·0	39·1	0·000	8·5	... : ... : wwP
19	...	29·808	64·0	50·3	13·7	55·5	+ 6·4	54·2	53·0	2·5	7·0	0·4	91	92·1	38·9	0·000	1·0	wwP
20	Greatest Declination S.	29·668	60·0	53·0	7·0	57·2	+ 8·4	55·8	54·5	2·7	4·8	1·1	91	74·0	46·4	0·147	8·0	wwP : ...
21	...	29·778	62·0	46·6	15·4	53·7	+ 5·1	50·6	47·6	6·1	15·4	1·3	79	102·1	41·0	0·032	4·0	... : ... : wP
22	First Quarter	29·991	60·8	45·4	15·4	52·8	+ 4·5	50·4	48·0	4·8	10·3	2·1	84	86·2	39·5	0·002	7·7	wwP
23	...	29·672	63·2	52·9	10·3	57·8	+ 9·7	55·7	53·8	4·0	9·5	1·3	86	94·1	49·5	0·137	11·8	wwP : wwP : wwP, wwN
24	...	29·526	55·1	41·5	13·6	48·7	+ 0·8	44·9	40·8	7·9	15·6	3·2	74	94·1	36·0	0·000	4·5	wwP : wP : wP
25	...	29·700	51·4	32·1	19·3	42·5	− 5·2	39·6	36·1	6·4	15·3	1·4	79	88·7	25·2	0·004	1·0	wP, wN : mP : mP
26	...	29·377	47·2	31·1	16·1	42·7	− 4·9	41·8	40·7	2·0	4·1	0·6	93	57·0	24·7	0·663	0·0	wP, wN : wwP, wwN : wN, wwP
27	In Equator	29·253	47·5	43·8	3·7	45·4	− 2·1	44·5	43·5	1·9	3·6	0·6	93	47·0	42·6	0·479	0·5	wwN, wwP : wwP, wwN : wwP
28	Perigee: Full	29·381	47·0	38·6	8·4	44·2	− 3·2	42·0	39·4	4·8	8·6	1·8	83	55·8	37·0	0·262	1·5	wwP : wwP : wP, vN
29	...	29·562	44·0	29·3	14·7	38·7	− 8·6	36·8	34·2	4·5	11·2	1·8	85	53·6	23·2	0·467	0·0	wwN, wwP : wP : mP
30	...	29·815	43·0	28·2	14·8	36·2	−11·0	35·0	33·2	3·0	6·2	0·7	89	56·2	21·7	0·000	0·0	wP
31	...	29·850	46·4	36·0	10·4	42·0	− 5·1	40·7	39·1	2·9	5·5	0·0	90	57·0	29·0	0·132	0·0	wP : wwP, wwN
Means	...	29·635	59·5	45·6	13·9	52·9	+ 2·9	50·6	48·4	4·5	9·7	1·1	85·0	88·7	38·6	Sum 4·059	5·8	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29^{in}·635, being 0^{in}·086 *lower* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 68°·0 on October 4; the lowest in the month was 28°·2 on October 30; and the range was 39°·8.
The mean of all the highest daily readings in the month was 59°·5, being 2°·0 *higher* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 45°·6, being 2°·4 *higher* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 13°·9, being 0°·4 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 52°·9, being 2°·9 *higher* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Oct. 1	0·0	11·6	ESE : Calm : SE	SE : Calm : Variable	0·0	0·00	100	p.-cl : 10, oc.-slt.-r : 9, n	10, s, n : 10, cu, n : p.-cl
2	3·9	11·6	S : SW : W	WSW : SW	0·8	0·01	157	9 : 10, f, m : 8, ci, ci.-s	6, cu : cu : 9, d
3	0·1	11·5	SW: SSW : S	SW	3·6	0·28	340	9 : 10 : 10, sc, n, slt.-r	10, slt.-r : 9, cu, n, sc : 9, slt.-sh
4	2·1	11·4	SW : WSW	SW	4·0	0·25	341	9,oc.-slt.-r: p.-cl : 9, cu.-s, n	9, cu, n : 10, s, slt.-r : p.-cl, s
5	4·1	11·4	SW : SSW	SW : WSW	5·4	0·39	401	p.-cl : 9, oc.-shs : 9, shs.-r, w	p.-cl,so.-ha,w: p.-cl,hy.-r,sq: 0, d
6	9·9	11·3	WSW : SW	WSW : SW : SSW	1·3	0·03	256	0, hy.-d : 0	p.-cl, cu : 3 : 2, d
7	4·7	11·2	S : SSW	S : SSW	7·0	0·45	365	0, d : 1, so.-ha : 8,ci, ci.-s, cu,w	9, cu, s, w : 10, slt.-r, w : 10, th.-r
8	4·7	11·1	SSW : SW	WSW : NW : W	6·1	0·40	401	10,hy.-shs: p.-cl, r, w: 9, ci, ci.-s, sc, so.-ha	6, cu, slt.-sh, w : p.-cl, w : 0
9	8·1	11·1	W : SW	SW : SSW : S	0·7	0·01	199	0 : 0	p.-cl, ci.-s : p.-cl, d : 10, slt.-r
10	1·1	11·0	S : SSE	SSW : S	3·6	0·23	307	9 : 9, s, n	9 : 10, fq.-r : 9, slt.-sh
11	4·2	10·9	S : SSE	S : SSW : SW	2·7	0·20	304	9, slt.-sh : p.-cl, oc.-slt.-r : 8, ci, cu, s	8,ci, ci.-cu,cu: 10, fq.-r : 9
12	6·5	10·9	SW : SSW : S	SSW : S	4·4	0·13	266	p.-cl : p.-cl,hy.-d: 3, cu, n	8 : p.-cl,ci,cu,n : p.-cl, hy.-d
13	0·9	10·8	S : SSW	SSW : SW	8·3	0·49	382	9 : 9,li.-shs, w: 9,so.-ha,fq.-hy.-shs, w	9 : p.-cl : p.-cl, d
14	9·7	10·8	SW : SSW : WSW	SW : SSW	3·5	0·21	337	p.-cl,hy.-d: 0 : 3, li.-cl	5, ci.-s, cu : 6 : p.-cl
15	0·0	10·7	SSW : SW	SW	9·0	1·25	633	9, w : 10, sc, slt.-r,w: 10, sc, n, slt.-r, w	10, sc, n, w : 10, fq.-r, w : 10, oc.-r, w
16	0·1	10·6	SW	SW : SSW	3·4	0·28	379	10, oc.-shs: 10, r : 10, sc, s, slt.-r	p.-cl, slt.-r : 10 : 10
17	2·7	10·6	SSW	WSW : SSW : S	3·2	0·28	353	10, r : 10, sc, r : 10, sc, th.-r	p.-cl, sh.-r : 0 : p.-cl, sh.-r
18	0·2	10·5	S : SSW	S : SSW : SW	0·5	0·01	156	10 : 10 : 9, cu, s	9, n, s : p.-cl, cu, n : 0, d
19	2·7	10·5	SW : WSW	SW : SSW	1·8	0·06	225	p.-cl : 10 : 9, cu.-s	p.-cl, cu, cu.-s : 1
20	0·0	10·4	SSW : SW	SSW : SW	4·9	0·63	472	p.-cl : 10, slt.-r : 10, r, w	10,fq.-th.-r,w: 10, r, w : 10, r
21	7·8	10·3	SW : WSW	WSW : SW	5·0	0·26	377	10 : p.-cl : 4, cu, n	5, cu, n, w : p.-cl : 0, hy.-d
22	1·2	10·3	SW : SSW	SW	5·7	0·43	399	p.-cl : 9 : p.-cl, cu, n	9, so.-ha, w : 10, slt.-r, w : p.-cl, slt.-r, w
23	2·1	10·2	SW	SW : SSW	11·8	0·87	522	9 : 10, slt,-r : 7,ci, ci.-s, cu,w	9, sc, s, w : 10, oc.-slt.-r,st.-w: 10, shs.-r, st.-w
24	5·8	10·1	SW : W : WSW	W : WSW	9·2	1·02	634	9, st.-w : 9, w : 8, cu, w	8, cu, n, w : p.-cl : 1, d
25	7·3	10·1	WSW : SW : WNW	W : SSW	3·5	0·21	341	1 : p.-cl,slt.-sh: 4, cu, n	6, cu, n : 2 : 0, slt.-m, ho.-fr
26	0·0	10·0	Variable : E : ESE	E : ENE : NE	4·3	0·27	311	p.-cl, ho.-fr : 10, li.-shs : 10, sc, n, slt.-r	10, sc, n, c.-r : 10, c.-r
27	0·0	10·0	NNE : NE	NNE	6·5	0·70	528	10, c.-r : 10, fq.-r : 10, sc, n, oc.-m.-r, w	10, fq.-r, w : 10, sc, n, oc.-r,w: 10, w
28	0·0	9·9	N : NNE	NNE : N	7·9	0·95	602	10, w : 10, sc, s, w	10, sc, s, slt.-r, w : 10, c.-r, w : 10, r, w
29	0·8	9·8	N : NNW : NW	NW : W : SW	12·3	0·55	390	10,c.-r,st.-w: 10, r, w : 10, slt.-r	p.-cl, cu, n : 0, slt.-f, ho.-fr
30	0·0	9·8	SW : NNW	N : NNE	0·3	0·00	136	p.-cl,ho.-fr: 9 : 10, cu.-s, slt.-f, glm	10, cu.-s, n : p.-cl,slt.-f,ho.-fr: p.-cl, slt.-f,ho.-fr
31	0·0	9·7	N : NNE	NNE	4·3	0·26	341	9 : 10 : 10, s, n, r	10, s, n, c.-r : 10, r : 10, r
Means	2·9	10·6	...	...	...	0·36	353		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 50°·6, being 2°·7 *higher* than
The mean *Temperature of the Dew Point* for the month was 48°·4, being 2°·7 *higher* than
The mean *Degree of Humidity* for the month was 85·0, being the *same* as
The mean *Elastic Force of Vapour* for the month was 0in·340, being 0in·033 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·8, being 0gr·3 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 535 grains, being 5 grains *less* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7·5.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·275. The maximum daily amount of *Sunshine* was 9·9 hours on October 6.

The highest reading of the *Solar Radiation Thermometer* was 114°·2 on October 11; and the lowest reading of the *Terrestrial Radiation Thermometer* was 21°·7 on October 30.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 2·8; for the 6 hours ending 15h was 1·8; and for the 6 hours ending 21h was 1·2.

The *Proportions of Wind* referred to the cardinal points were N. 4, E. 2, S. 14, and W. 10. One day was calm.

The *Greatest Pressure of the Wind* in the month was 12·3 lbs. on the square foot on October 29. The mean daily *Horizontal Movement of the Air* for the month was 353 miles; the greatest daily value was 634 miles on October 24; and the least daily value was 100 miles on October 1.

Rain (0in·005 or over) fell on 19 days in the month, amounting to 4in·059, as measured by gauge No. 6 partly sunk below the ground; being 1in·277 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation=100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Nov. 1	...	29·977	51·7	43·9	7·8	47·4	+ 0·4	46·8	46·1	1·3	4·0	0·0	96	66·0	42·0	0·003	0·0	wwP
2	Greatest Declination N.	29·930	55·1	44·6	10·5	49·4	+ 2·6	47·4	45·2	4·2	9·8	0·2	86	88·4	39·0	0·010	4·0	wwP
3	...	29·891	54·2	48·2	6·0	51·3	+ 4·7	50·6	49·9	1·4	3·4	0·2	95	59·7	44·0	0·008	0·0	wwP
4	Last Quarter	29·994	52·1	45·4	6·7	49·3	+ 2·9	48·2	47·0	2·3	4·6	0·2	92	56·3	39·7	0·000	0·0	wwP, wwN : wwP : wwP
5	...	29·982	54·6	37·2	17·4	44·8	− 1·3	43·3	41·6	3·2	12·2	0·0	89	83·8	28·0	0·002*	0·0	wP : wwP : wP
6	...	29·896	56·7	34·2	22·5	43·7	− 2·1	42·0	40·0	3·7	11·4	0·0	86	93·8	25·3	0·000	0·0	wP
7	...	29·949	47·0	34·8	12·2	42·5	− 2·9	41·9	41·2	1·3	5·0	0·0	95	62·1	30·6	0·000	0·0	wwP
8	...	30·132	48·9	33·7	15·2	40·4	− 4·6	39·1	37·4	3·0	8·4	0·0	90	77·0	25·6	0·000	0·0	wwP : wP : mP
9	Apogee: In Equator	30·046	48·5	29·1	19·4	39·7	− 4·9	37·6	34·9	4·8	10·1	0·0	83	80·8	25·2	0·002*	6·0	mP : wP
10	...	29·854	46·9	35·5	11·4	42·5	− 1·8	40·5	38·1	4·4	9·2	0·5	85	57·6	28·2	0·009	0·0	wP
11	...	29·977	46·2	34·1	12·1	41·3	− 2·7	39·1	36·4	4·9	12·3	0·7	83	66·2	26·7	0·005	0·0	wP : mP : wP
12	...	29·670	53·8	44·4	9·4	49·5	+ 5·8	46·2	42·7	6·8	10·2	3·5	77	60·0	39·5	0·000	0·0	wP
13	New	29·473	50·6	32·3	18·3	43·7	+ 0·2	39·9	35·4	8·3	12·8	2·8	73	69·4	23·6	0·005	0·0	wP, wwN : mP : mP
14	...	29·433	42·0	30·1	11·9	36·2	− 7·1	35·7	35·0	1·2	3·0	0·6	96	59·8	22·2	0·160	0·0	wP : vP, vN : wP
15	...	29·536	42·0	36·1	5·9	39·0	− 4·1	37·2	34·9	4·1	7·2	1·4	86	61·1	29·8	0·012	0·0	wP : wP : mP
16	...	29·783	40·2	33·1	7·1	37·0	− 5·8	35·6	33·6	3·4	6·5	2·2	88	63·0	26·6	0·051	3·0	wP : wP : wP, mN
17	Greatest Declination S.	29·844	48·0	34·2	13·8	40·1	− 2·5	37·9	35·1	5·0	10·7	2·0	83	71·0	28·9	0·026	0·0	wP : mP : wP
18	...	29·897	47·0	38·0	9·0	41·1	− 1·3	39·1	36·6	4·5	9·7	1·4	84	82·9	30·5	0·015	1·5	wN, wP : wP : mP
19	...	29·980	43·5	34·3	9·2	39·4	− 2·9	36·1	31·8	7·6	11·5	2·5	75	75·6	25·0	0·000	4·5	wP : mP : mP
20	First Quarter	29·989	41·5	32·2	9·3	37·6	− 4·6	36·3	34·5	3·1	7·0	0·7	89	45·5	23·2	0·015	0·0	mP, mN : mP : mP
21	...	29·762	43·5	31·1	12·4	37·6	− 4·5	35·7	33·1	4·5	9·0	2·1	84	57·0	23·3	0·000	0·0	mP
22	...	29·844	40·0	31·7	8·3	34·9	− 7·2	33·5	31·3	3·6	6·5	1·8	86	64·9	24·5	0·000	2·0	mP
23	In Equator	30·152	38·9	31·2	7·7	34·5	− 7·5	33·5	31·8	2·7	5·0	1·0	90	46·6	26·8	0·007	0·0	mP
24	...	30·214	40·0	30·7	9·3	35·6	− 6·4	34·2	32·1	3·5	5·8	0·8	87	47·4	26·2	0·000	0·0	mP
25	Perigee	30·128	43·2	27·6	15·6	37·6	− 4·3	36·6	35·3	2·3	5·1	0·0	92	51·8	23·1	0·004*	0·0	mP
26	...	30·003	42·9	29·6	13·3	37·1	− 4·7	35·5	33·3	3·8	6·2	0·0	86	46·1	24·0	0·000	0·0	mP
27	Full	29·850	44·8	39·0	5·8	41·9	+ 0·2	39·7	37·0	4·9	9·0	1·8	84	69·3	34·0	0·004	4·0	wP : wP : vN, wP
28	...	29·635	52·5	43·0	9·5	47·8	+ 6·3	45·7	43·4	4·4	7·0	2·0	86	65·0	36·0	0·037	2·0	wP
29	Greatest Declination N.	29·284	52·5	45·7	6·8	49·5	+ 8·3	47·9	46·2	3·3	5·5	1·1	89	55·0	39·5	0·414	6·7	wwP : wwP, wwN : wN, wP
30	...	29·179	48·2	40·1	8·1	44·1	+ 3·1	41·2	37·8	6·3	10·1	3·0	78	71·2	33·5	0·001	5·5	wP : mP : mP
Means	...	29·843	47·2	36·2	11·1	41·9	− 1·6	40·1	38·0	3·9	7·9	1·1	86·4	65·1	29·8	0·790	1·3	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

* Rainfall (Column 16). Amounts entered on November 5, 9, and 25, are derived from fog or frost.

The mean reading of the *Barometer* for the month was $29^{in}\cdot843$, being $0^{in}\cdot085$ *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 56°·7 on November 6; the lowest in the month was 27°·6 on November 25; and the range was 29°·1.
The mean of all the highest daily readings in the month was 47°·2, being 1°·8 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 36°·2, being 1°·7 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 11°·1, being the *same* as the average for the 65 years, 1841–1905.
The mean for the month was 41°·9, being 1°·6 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Nov. 1	0·2	9·6	NNE	NNE : ENE	0·5	0·01	157	10, slt.-r : 10, oc.-slt.-r : 10, s	10, s : 10, f : 10, slt.-f
2	5·3	9·6	SSW : SW	WSW	0·9	0·03	190	10, slt.-f : p.-cl, f : 2, ci, ci.-cu, ci.-s	p.-cl, ci.-s, ci.-cu, s : 10, oc.-m.-r : 10, fq.-m.-r
3	0·0	9·5	NNW : N	N : NNE : NE	0·6	0·01	139	10, m.-r, f : 10, m.-r, slt.-f, glm : 10, s, oc.-m.-r	10, s, oc.-m.-r : 10 : p.-cl
4	0·0	9·4	NE : Calm	Calm	0·0	0·00	62	9 : 10 : 10	10, s : 10 : p.-cl
5	6·1	9·4	Calm	SE : Calm	0·1	0·00	81	p.-cl, f : tk.-f : f	0 : 0 : 0, d, ho.-fr
6	8·5	9·3	Variable : SE : Calm	Calm	0·1	0·00	86	1, ho.-fr : 1	1, th.-cl : 1, ci.-s, ci.-cu, f : tk.-f
7	0·0	9·3	Calm : N	N	2·1	0·08	193	tk.-f : p.-cl, m : 9	p.-cl, cu, s, n : 0, d
8	5·8	9·2	NNW : N	NNE : NNW : Calm	1·5	0·06	184	0, m, ho. fr : h : 4, cu, th.-cl	2, cu : 0, hy.-d, ho.-fr, slt.-f
9	6·6	9·2	SW	SW	3·0	0·19	317	0, f, ho.-fr : 0, f, ho.-fr : 0	p.-cl, cu : 9, s : 9
10	3·2	9·1	SW : WSW : WNW	NW : WNW : W	6·2	0·16	318	p.-cl, ho.-fr : 1 : 4, cu, n	p.-cl, cu, n, slt.-r, w : 0 : 0, h, slt.-f, ho.-fr
11	3·2	9·1	W : NW : NNW	NW : W : WSW	2·6	0·14	317	p.-cl, m, ho.-fr : 1, slt.-f : 7, ci, ci.-s, cu.-s, so.-ha	8, slt.-sh : 10 : p.-cl
12	0·0	9·0	WSW : W	W : WSW	13·3	0·83	628	9, slt.-sh : 10 : 10, n	10, n, w : 10, sc, n, w : 9, st.-w
13	3·4	9·0	WSW : NW : W	W : NW : NNW	8·0	0·38	367	9, slt.-sh, st.-w : th.-cl, slt.-f : 6, cu	p.-cl, cu, cu.-s : th.-cl, h, d : p.-cl, h, slt.-f, ho.-fr
14	0·2	8·9	Calm : Variable	ESE : NE	0·5	0·01	159	p.-cl, h, ho.-fr : f : 10, s, r	p.-cl, sh.-r : 10, s : 10
15	0·1	8·8	NE	NNE : NE	2·8	0·18	331	p.-cl, slt.-sh : 9 : 8, s, n	9, cu, s, n : 10 : p.-cl
16	0·9	8·8	NE : NNE	NNE : NE	3·4	0·27	374	p.-cl, ho.-fr : p.-cl : 8, n, r, sl, sn	p.-cl, so.-ha : 9, sh.-r : p.-cl
17	3·3	8·8	NNE : NE	NE : NNE	4·4	0·30	371	p.-cl, slt.-sh : p.-cl, ho.-fr : 6, cu, cu.-s	cu, n, li.-shs : v, li.-shs : 9, oc.-slt.-r
18	4·9	8·7	NE : ENE	E : ENE	5·2	0·27	369	p.-cl, r : p.-cl : 4, cu, n, w	8, cu, cu.-s, n : p.-cl, d : 9
19	3·2	8·7	E	ENE : NE	6·0	0·27	343	9 : 9 : 8, cu, cu.-s	p.-cl, cu.-s, n : p.-cl : p.-cl, ho.-fr
20	1·4	8·6	N : NNW : Calm	WSW : NNW	0·1	0·00	126	9, slt.-r : p.-cl, h, slt.-m : s, slt.-f	s, slt.-f : 0, slt.-f : p.-cl, ho.-fr
21	3·8	8·6	NNW : Variable	NNW : N	4·5	0·14	267	1, ho.-fr : 1, m : 1, slt.-m	4, cu : p.-cl : 0, ho.-fr
22	5·8	8·5	NNW : N	N	3·2	0·24	333	0, slt.-m, ho.-fr : 0, m : 1, cu	p.-cl, cu, n : cu, li.-cl, n : 1, ho.-fr
23	0·0	8·5	N : NNW	NNW : NW : WSW	2·3	0·08	220	p.-cl, sn : 9 : 10, n	10, s, glm : 10 : p.-cl, h, slt.-f
24	1·8	8·4	WSW : SW	W : WSW	1·2	0·05	284	p.-cl, h, ho.-fr : 1, slt.-m : p.-cl	10, s : 10, th.-cl, f : 9, h
25	0·2	8·4	W : NW : NNW	N : Calm : SW	0·5	0·00	145	p.-cl, ho.-fr : 10, slt.-f : 10, s	p.-cl, cu, s : f : tk.-f, ho.-fr
26	0·0	8·3	Variable : SSW : SW	WSW : SW : S	0·2	0·00	155	p.-cl, f : 10 : 10, cu.-s	10, cu.-s : 9, cu, n, d : 9
27	3·1	8·3	S : SSW	S : SSW	3·0	0·23	331	10 : 9 : p.-cl, cu, w	ci.-s, ci.-cu, cu, cu.-s : p.-cl, slt.-sh : 9, lu.-ha
28	0·1	8·2	SSW : SW	SW	3·9	0·44	473	10, th.-r : 10, slt.-r : 9, ci.-s, sc, n	10, cu, s : 10, s : 9, sc, s, lu.-ha
29	0·0	8·2	SW	SW	5·0	0·54	497	9, w : 9, slt.-r, w : 10, sc, s, slt.-r, w	10, c.-r, w : 10, oc.-r
30	6·4	8·2	SW	SW	4·5	0·44	480	p.-cl : 1 : 1, li.-cl	2, cu : li.-cl : ci.-cu, ci.-s, cu, n, slt.-sh, lu.-ha
Means	2·6	8·9	...	...	...	0·18	277		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 40°·1, being 1°·8 *lower* than
The mean *Temperature of the Dew Point* for the month was 38°·0, being 2°·0 *lower* than
The mean *Degree of Humidity* for the month was 86·4, being 0·9 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·229, being 0in·018 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·6, being 0gr·2 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 551 grains, being 3 grains *greater* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 6·5.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·292. The maximum daily amount of *Sunshine* was 8·5 hours on November 6.

The highest reading of the *Solar Radiation Thermometer* was 93°·8 on November 6; and the lowest reading of the *Terrestrial Radiation Thermometer* was 22°·2 on November 14.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 0·6; for the 6 hours ending 15h was 0·5; and for the 6 hours ending 21h was 0·2.

The *Proportions of Wind* referred to the cardinal points were N. 9, E. 4, S. 5, and W. 8. Four days were calm.

The *Greatest Pressure of the Wind* in the month was 13·3 lbs. on the square foot on November 12. The mean daily *Horizontal Movement of the Air* for the month was 277 miles; the greatest daily value was 628 miles on November 12; and the least daily value was 62 miles on November 4.

Rain (0in·005 or over) fell on 14 days in the month, amounting to 0in·790, as measured by gauge No. 6 partly sunk below the ground; being 1in·430 *less* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Phases of the Moon.	Barometer. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Temperature. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	Temperature. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Dec. 1	...	29·027	47·0	38·7	8·3	43·1	+ 2·2	41·1	38·7	4·4	9·5	1·3	84	47·0	32·1	0·224	0·8	wP : wP, vN : mP
2	...	28·999	53·0	40·6	12·4	45·6	+ 4·7	43·7	41·5	4·1	6·6	0·6	86	57·4	35·6	0·255	4·5	wP : wP : wwP, wwN
3	...	28·613	53·0	38·5	14·5	43·0	+ 1·9	39·7	35·7	7·3	10·8	2·4	76	71·8	33·0	0·140	6·0	wwN, wwP : wP : mP
4	Last Quarter	28·659	44·5	34·3	10·2	39·4	− 1·9	37·6	35·3	4·1	6·6	1·1	86	63·0	29·5	0·333	4·5	wP, vN : vN, mP : mP, wwN
5	...	28·967	43·3	29·9	13·4	35·5	− 6·0	34·0	31·7	3·8	10·6	1·4	86	65·0	23·1	0·028	0·0	mP : sP : vP, vN
6	...	28·933	41·9	33·3	8·6	37·4	− 4·1	36·5	35·3	2·1	4·6	0·2	92	54·0	26·0	0·143	0·0	wP, vN : mP : mP, sN
7	In Equator : Apogee	29·137	37·5	29·2	8·3	35·0	− 6·3	34·4	33·4	1·6	4·6	0·3	94	37·0	22·6	0·004	0·0	mP
8	...	29·765	40·2	30·6	9·6	34·9	− 6·1	33·3	30·7	4·2	9·2	1·4	84	44·7	24·0	0·000	0·0	mP : sP : mP
9	...	30·181	43·0	28·8	14·2	36·0	− 4·6	34·4	32·0	4·0	6·6	1·4	86	52·6	21·5	0·022	1·5	mP : sP : mP
10	...	29·974	47·9	42·2	5·7	45·4	+ 5·0	44·5	43·5	1·9	3·5	1·1	93	51·0	38·2	0·149	6·0	wP
11	...	29·750	47·0	38·9	8·1	44·5	+ 4·3	43·7	42·8	1·7	4·0	0·8	94	51·3	36·0	0·015	4·5	wP
12	New	29·825	42·1	35·0	7·1	37·7	− 2·6	36·8	35·6	2·1	4·5	0·3	93	40·0	31·8	0·025	0·0	wP
13	...	30·071	42·6	39·4	3·2	41·2	+ 0·7	40·1	38·7	2·5	4·2	0·2	91	44·0	37·0	0·000	0·0	wwP : wP
14	Greatest Declination S.	30·197	40·3	36·0	4·3	39·0	− 1·7	37·5	35·5	3·5	5·3	1·0	88	45·9	30·2	0·000	0·0	wP
15	...	30·119	38·3	32·6	5·7	36·3	− 4·5	34·6	32·1	4·2	6·5	2·0	85	40·0	29·5	0·031	0·0	wP : mP : vP
16	...	29·936	39·2	33·1	6·1	36·0	− 4·7	34·4	32·0	4·0	9·3	0·7	86	42·7	30·0	0·170	4·2	wP : vP, vN : vP, vN
17	...	29·417	41·1	38·6	2·5	39·8	− 0·6	39·6	39·3	0·5	1·8	0·2	98	42·1	37·5	0·061	0·8	vN, wwP : wP : wP
18	...	29·179	41·1	36·2	4·9	39·4	− 0·6	37·9	36·0	3·4	5·8	0·0	88	46·0	29·5	0·137	0·0	wP, mN : mP : mP
19	...	29·073	43·0	27·6	15·4	35·9	− 3·6	34·6	32·6	3·3	7·7	0·0	88	68·0	15·5	0·033	0·8	mP : mP, vN : mP
20	First Quarter : In Equator	29·350	36·7	26·5	10·2	31·6	− 7·4	28·9	22·4	9·2	12·7	2·3	67	52·3	20·6	0·000	2·2	mP : sP : sP
21	...	29·583	36·3	22·1	14·2	30·3	− 8·4	28·6	23·6	6·7	8·8	0·0	74	53·2	14·6	0·003*	2·5	sP : sP : mP
22	...	28·887	53·2	33·4	19·8	46·9	+ 8·5	45·8	44·6	2·3	7·0	0·0	92	58·1	31·0	0·289	5·5	vP, vN : wwP : wwP
23	Perigee	28·905	52·5	48·5	4·0	50·5	+12·3	49·1	47·6	2·9	5·6	2·2	90	58·2	44·0	0·105	3·0	wwP
24	...	29·379	49·0	30·3	18·7	38·3	+ 0·1	37·0	35·2	3·1	6·9	0·2	89	47·0	24·0	0·000	0·0	wP
25	...	29·692	44·6	29·5	15·1	38·0	− 0·4	36·1	33·5	4·5	9·7	0·6	84	57·2	21·9	0·034	4·5	wP : wP : mP
26	Full	29·614	53·2	38·2	15·0	46·9	+ 8·3	45·5	44·0	2·9	6·2	1·3	90	64·1	31·7	0·060	5·2	wwP
27	Greatest Declination N.	29·642	52·8	47·6	5·2	50·3	+11·5	49·4	48·4	1·9	4·6	0·6	94	57·0	43·1	0·054	3·5	wwP
28	...	29·445	53·5	48·0	5·5	51·1	+12·2	48·5	45·8	5·3	8·6	2·0	82	59·1	42·5	0·066	5·0	wwP : wwP : wwP, wwN
29	...	29·930	48·0	31·7	16·3	42·1	+ 3·1	39·3	35·8	6·3	9·5	0·8	79	57·8	17·7	0·000	0·8	wP : mP : mP
30	...	30·209	43·0	28·2	14·8	36·6	− 2·3	35·5	34·0	2·6	5·5	0·0	91	52·9	11·5	0·002	1·5	mP
31	...	30·027	51·8	38·1	13·7	44·7	+ 6·0	42·7	40·4	4·3	10·3	2·0	85	70·0	31·0	0·017	4·5	wP : ... : mN, mP
Means	...	29·500	45·2	35·0	10·2	40·4	+ 0·5	38·9	36·7	3·7	7·0	0·9	86·9	53·2	28·9	Sum 2·400	2·3	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

* Rainfall (Column 16). Amount entered on December 21 is partly derived from frost.

The mean reading of the *Barometer* for the month was 29in·500, being 0in·285 *lower* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 53°·5 on December 28 ; the lowest in the month was 22°·1 on December 21 ; and the range was 31°·4.
The mean of all the highest daily readings in the month was 45°·2, being 1°·0 *higher* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 35°·0, being the *same* as the average for the 65 years, 1841–1905.
The mean of the daily ranges was 10°·2, being 1°·0 *greater* than the average for the 65 years, 1841–1905.
The mean for the month was 40°·4, being 0°·5 *higher* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1909.	Daily Duration of Sunshine.	Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	CLOUDS AND WEATHER. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Dec. 1	0·0	8·1	WSW : SW : SSW	SSW : W : WNW	11·5	0·75	524	p.-cl : p.-cl : 10, oc.-r	p.-cl, r : p.-cl, g : p.-cl, st.-w
2	0·1	8·1	W : WSW : WNW	SSW: S : SW	12·5	0·71	486	10,hy.-r, hy.-g : p.-cl,st.-w : p.-cl,cu,n,st.-w	10, r : 10, r, w : 10, r, g
3	5·3	8·1	SW : WSW	WSW : SW	27·0	2·39	859	9 : 9	5, cu, n, w : 2, cu, l, w : p.-cl, l, w
4	1·3	8·1	SW : S : SSW	SW : NNW : W	2·7	0·18	348	p.-cl : 10, r : 10, ci.-s, cu, n, oc.-r	8, cu, s, n, prh : 10, r : 10
5	6·3	8·0	WSW : SW	SW : S : SE	0·7	0·02	228	p.-cl,ho.-fr: 0, ho.-fr : 1, th.-cl	ci, ci.-s : p.-cl : p.-cl, r
6	3·6	8·0	SE : SW	SW : S : SSE	0·6	0·01	189	9, r : 10 : p.-cl, slt.-f, so.-ha, prh	p.-cl : p.-cl : 9, oc.-r
7	0·0	8·0	SW : Calm : WSW	NW : NNW : WNW	1·7	0·05	202	p.-cl,ho.-fr: 10,glm,slt.-f: 10, s, slt.-f, glm	10, n, s : 10, n : 10
8	2·9	7·9	NW : WNW : W	NW : W : WSW	0·9	0·05	266	p.-cl,ho.-fr: 1, slt.-h,ho.-fr : 5, th.-cl	th.-cl : 10, th.-cl : h, ho.-fr
9	3·9	7·9	WSW : SW	SW : S : SSW	1·3	0·02	244	1,h,ho.-fr: 0, slt.-f : 1,ci,cu,th.-cl	p.-cl, cu, s : p.-cl, slt.-sh : 10, r
10	0·0	7·9	SSW	SSW	4·3	0·54	495	10, slt.-r : 10, s, sc	10, sc, s : 10, r : 10, c.-r
11	0·0	7·9	SSW : S	S : SSE : SE	2·6	0·12	269	p.-cl,oc.-r: 10, th.-r : 10, sc, s	10, sc, s : 10, sc, s, sh.-r : p.-cl
12	0·0	7·8	ESE : E	NNE : NE : ENE	2·2	0·07	249	9 : 10, m.-r : 10, s	10, s : 10, slt.-r : 10, slt.-r
13	0·0	7·8	ENE : NE	ENE : NE	3·7	0·25	385	10 : 10, s	10, s, n : 10
14	0·0	7·8	NE : ENE	ENE	9·8	0·68	508	p.-cl : 10, n, w	10, cu.-s, n, w : 10, w
15	0·0	7·8	ENE : NE	NE : ESE : E	4·9	0·40	411	p.-cl, w : 10 : 10, s, n	10 : 10, sn, sl, r : 10
16	0·0	7·8	E	E	0·9	0·03	187	10 : 10 : 9,cu.-s,n,sn,sl	10, fq.-r : 10, r : 10, r
17	0·0	7·8	ENE : E	E : ESE : NE	1·1	0·01	149	10, r : 10 : 10, s	10, slt.-r : 10, slt.-r : 10, slt.-r, f
18	0·4	7·8	NW : WNW	W : WSW : SW	3·7	0·18	341	10, r : 10, cu.-s	9,ci.-cu,cu.-s,n : 9, cu.-s : 9
19	2·5	7·8	SW : S : SSE	SSW : WSW : NW	4·4	0·28	353	p.-cl : p.-cl	10, oc.-slt.-r : p.-cl : 10, sn
20	6·2	7·8	WNW : WSW	SW	2·2	0·10	322	p.-cl : 0 : 0	0 : ci.-s,slt.-f,ho.-fr: ci.-s, slt.-f, lu.-ha, ho.-fr
21	4·8	7·8	SW : Calm	ESE : E	4·6	0·08	220	1,th.-cl, ho.-fr : 1,li.-cl,slt.-f, ho.-fr : 1, ci, ci.-s	p.-cl,ci,ci.-s,ci.-cu : 10,ci.-s,lu.-ha: 10, s, sn, th.-r
22	0·0	7·7	ESE : SSW	SW : SSW	5·0	0·54	479	10, r, w : 10, c.-r : 10, sc, n, w	9, ci.-cu, cu,n, sc, fq.-m.-r : 10, n, sc, oc.-m.-r, lu.-ha : li.-sc, lu.-ha
23	0·2	7·7	SW : SSW	SW	9·0	0·40	436	9, slt.-sh : 9,sc,ci,ci.-s: 10,sc,fq.-r,w	9,sc,sh.-r,w : 9,sc,n,fq.-th.-r : 10, sc, li.-shs
24	0·0	7·8	NW : W : WSW	NNW : W : SW	3·1	0·05	207	p.-cl,ho.-fr: slt.-f : 7,s,th.-cl,slt.-f	7, cu, n, th.-cl : 0, slt.-f, ho.-fr
25	4·4	7·8	SW : SSW	WNW : WSW : SW	5·5	0·25	374	0, ho.-fr : 1, li.-cl : p.-cl, sh.-r,sl	p.-cl, w : p.-cl,ci.-s, d,lu.-ha : 10, ci.-s,lu.-ha,ho.-fr
26	1·4	7·8	SSW : SW	WSW : SW	5·0	0·36	447	10, oc.-r : 10, w : 9,cu.-s,n,slt.-sh	8, cu, s : 9,ci.-cu,cu.-s: 9, sc
27	0·0	7·8	SW : WSW	SW : SSW	3·8	0·15	347	p.-cl : 9, cu.-s, n : 9,ci.-cu,cu.-s,n	10, cu.-s, n, r : 10, fq.-th.-r : 10, sc
28	0·8	7·8	SW : WSW	WSW : NW	10·0	1·23	694	9,sh.-r,w : p.-cl,ci,sc,w : 9, ci, ci.-s, n, sc, w	p.-cl, ci, ci.-s, cu.-s,w : 9, cu.-s, n, sc, w, lu.-co : 10, r, st.-w
29	2·4	7·8	N : NNW	N : NNE : Calm	6·6	0·28	273	10, w : 10 : 5, ci.-cu, cu	8,ci,ci.-cu,n,so.-ha : p.-cl, lu.-ha : th.-cl,slt.-f,ho.-fr
30	1·2	7·8	Calm : SW	SW : S : SSW	1·3	0·01	160	th.-cl,tk.-f,ho.-fr: 10,f,ho.-fr : 8, cu.-s, slt.-f	p.-cl, slt.-sh : 10 : 10
31	2·5	7·8	SSW : SW	WSW : WNW : W	4·5	0·36	417	10 : 10, slt.-r : p.-cl,s,sc,slt.-r	p.-cl, slt.-sh : 1, d
Means	1·6	7·9	...	...	...	0·34	357		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 38°·9, being 0°·4 *higher* than
The mean *Temperature of the Dew Point* for the month was 36°·7, being the *same* as
The mean *Degree of Humidity* for the month was 86·9, being 1·7 *less* than
The mean *Elastic Force of Vapour* for the month was 0^{in}·218, being the *same* as
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2^{grs}·5, being 0^{gr}·1 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 547 grains, being 5 grains *less* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7·5.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·206. The maximum daily amount of *Sunshine* was 6·3 hours on December 5.

The highest reading of the *Solar Radiation Thermometer* was 71°·8 on December 3; and the lowest reading of the *Terrestrial Radiation Thermometer* was 11°·5 on December 30.

The mean daily distribution of *Ozone* for the 12 hours ending 9^{h} was 1·9; 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. 3, E. 6, S. 10, and W. 11. One day was calm.

The *Greatest Pressure of the Wind* in the month was 27·0 lbs. on the square foot on December 3. The mean daily *Horizontal Movement of the Air* for the month was 357 miles; the greatest daily value was 859 miles on December 3; and the least daily value was 149 miles on December 17.

Rain (0^{in}·005 or over) fell on 22 days in the month, amounting to 2^{in}·400, as measured by gauge No. 6 partly sunk below the ground; being 0^{in}·573 *greater* than the average fall for the 65 years, 1841–1905.

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

MAXIMA.			MINIMA.			MAXIMA.			MINIMA.		
Greenwich Civil Time, 1909.		Reading.	Greenwich Civil Time, 1909.		Reading.	Greenwich Civil Time, 1909.		Reading.	Greenwich Civil Time, 1909.		Reading.
	d h m	in.		d h m	in.		d h m	in.		d h m	in.
January	4. 10. 0	30·555	January	8. 15. 10	29·610	April	15. 20. 50	29·856	April	16. 15. 50	29·669
	9. 10. 50	30·059		11. 23. 0	29·391		16. 23. 15	29·765		20. 0. 10	29·444
	12. 21. 0	29·698		13. 19. 55	29·058		20. 22. 30	29·966		22. 22. 25	29·496
	14. 11. 10	29·291		15. 3. 10	28·907		23. 19. 55	29·640		24. 18. 50	29·390
	15. 18. 25	29·306		16. 3. 45	29·201		25. 20. 0	29·643		26. 22. 55	29·490
	17. 8. 55	30·015		19. 4. 0	29·743		28. 8. 40	29·846		29. 20. 55	29·424
	20. 23. 5	30·341		24. 1. 0	29·919						
	26. 21. 0	30·354		30. 3. 55	29·819						
	30. 20. 15	29·988				May	3. 9. 30	30·289	May	9. 10. 40	29·831
							11. 9. 15	30·028		12. 15. 35	29·870
February	2. 4. 35	30·008	February	1. 6. 40	29·686		13. 9. 0	30·116		17. 3. 30	29·540
	4. 10. 40	29·724		3. 13. 55	29·626		19. 9. 0	30·131		21. 17. 40	29·857
	8. 11. 15	30·110		5. 7. 40	29·432		24. 8. 15	30·183		26. 15. 10	29·290
	14. 0. 0	30·389		10. 15. 0	29·201		30. 10. 20	30·085			
	22. 11. 0	30·365		18. 16. 15	29·858						
	25. 22. 0	30·208		23. 16. 15	30·118						
									June	1. 18. 0	29·624
						June	3. 0. 0	29·920		4. 16. 10	29·573
							8. 0. 30	29·922		11. 14. 10	29·748
March	5. 9. 0	29·423	March	3. 14. 40	28·991		14. 22. 45	30·135		16. 4. 25	30·022
	9. 0. 0	29·561		7. 4. 30	28·854		18. 10. 40	30·190		22. 7. 10	29·178
	12. 12. 0	29·803		9. 16. 15	29·484		23. 9. 15	29·377		24. 8. 0	29·163
	17. 10. 15	29·448		15. 5. 30	29·038		28. 9. 10	29·821		29. 15. 0	29·698
	21. 8. 25	29·440		19. 1. 0	29·039						
	23. 21. 0	29·764		21. 17. 5	29·318						
	27. 10. 15	29·700		25. 15. 50	28·950	July	2. 8. 35	30·089	July	4. 5. 20	29·776
	31. 9. 35	29·441		30. 5. 40	29·002		5. 9. 0	29·918		7. 2. 0	29·292
				31. 18. 50	29·305		9. 4. 55	29·866		10. 2. 45	29·402
							14. 10. 40	29·959		16. 15. 5	29·666
April	2. 20. 50	30·358					19. 23. 15	30·113		23. 18. 55	29·501
	7. 9. 0	30·250	April	5. 15. 35	30·066		24. 22. 30	29·621		25. 19. 0	29·261
	13. 6. 30	29·494		12. 16. 50	29·402		27. 7. 45	29·798		28. 3. 50	29·500
				14. 3. 25	29·407						

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, 1909.	Reading.	Greenwich Civil Time, 1909.	Reading.	Greenwich Civil Time, 1909.	Reading.	Greenwich Civil Time, 1909.	Reading.
d h m	in.	d h m	in.	d h m	in.	d h m	in.
July 28. 23. 10	29·835	July 30. 11. 30	29·625	October 19. 10. 30	29·857	October 20. 23. 0	29·589
31. 2. 10	29·787	31. 15. 10	29·702	22. 7. 30	30·060	24. 1. 30	29·206
August 1. 6. 20	29·897	August 2. 5. 45	29·766	25. 1. 15	29·728	26. 23. 5	29·171
5. 10. 30	30·102	9. 16. 15	29·840	November 1. 10. 35	30·018	November 3. 3. 30	29·847
11. 8. 5	30·132	13. 5. 5	29·932	4. 21. 35	30·032	6. 15. 45	29·866
14. 9. 35	30·026	18. 11. 5	29·272	8. 20. 35	30·204	10. 5. 20	29·810
19. 23. 25	29·957	21. 17. 55	29·441	11. 10. 20	30·021	13. 2. 40	29·341
23. 23. 35	29·654	25. 0. 0	29·528	13. 22. 50	29·573	14. 15. 0	29·342
28. 8. 45	30·062	31. 4. 55	29·460	20. 0. 10	30·039	21. 16. 25	29·687
September 3. 0. [illegible]	30·069	September 4. 21. 45	29·540	23. 21. 30	30·252	30. 1. 40	29·128
5. 19. 30	29·889	7. 9. 10	29·456	December 1. 4. 30	29·230	December 1. 18. 0	28·773
9. 10. 5	29·963	11. 5. 35	29·638	2. 9. 25	29·237	3. 3. 55	28·337
14. 20. 30	30·135	16. 16. 30	29·878	3. 23. 20	28·841	4. 14. 35	28·492
18. 23. 30	29·984	22. 3. 40	29·691	5. 10. 15	29·035	6. 4. 10	28·853
24. 11. 15	30·019	25. 16. 5	29·917	9. 10. 40	30·239	11. 15. 0	29·712
26. 20. 20	30·065	29. 17. 0	29·673	14. 22. 40	30·231	18. 3. 30	29·030
30. 10. 15	29·778	October 1. 16. 0	29·410	18. 23. 0	29·310	19. 17. 40	28·871
October 3. 1. 15	29·767	3. 17. 0	29·503	21. 10. 15	29·674	22. 9. 5	28·777
4. 9. 20	29·586	5. 14. 40	29·193	25. 21. 20	29·829	26. 10. 45	29·550
6. 22. 20	29·825	8. 6. 20	29·347	27. 12. 45	29·683	28. 6. 5	29·400
9. 9. 20	30·125	13. 10. 45	29·519	28. 10. 20	29·475	28. 18. 0	29·388
14. 11. 15	29·846	17. 12. 0	29·300	30. 9. 50	30·265	31. 12. 10	29·938

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 1909.

[Extracted from the preceding Table.]

MONTH, 1909.	Readings of the Barometer.		Range.
	Highest.	Lowest.	
	in.	in.	in.
January	30·555	28·907	1·648
February	30·389	29·201	1·188
March	29·803	28·854	0·949
April	30·358	29·390	0·968
May	30·289	29·290	0·999
June	30·190	29·163	1·027
July	30·113	29·261	0·852
August	30·132	29·272	0·860
September	30·135	29·456	0·679
October	30·125	29·171	0·954
November	30·252	29·128	1·124
December	30·265	28·337	1·928

The highest reading in the year was $30^{in.}555$ on January 4. The lowest reading in the year was $28^{in.}337$ on December 3.
The range of reading in the year was $2^{in.}218$.

MONTHLY RESULTS of METEOROLOGICAL ELEMENTS for the YEAR 1909.

MONTH, 1909.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR. Highest.	Lowest.	Range in the Month.	Mean of all the Highest.	Mean of all the Lowest.	Mean of the Daily Ranges.	Monthly Mean.	Excess of Mean above Average of 65 Years.	Mean Temperature of Evaporation.	Mean Temperature of the Dew Point.	Mean Degree of Humidity. (Saturation = 100.)
	in.	°	°	°	°	°	°	°	°	°	°	
January.....	29·986	50·4	20·8	29·6	43·0	34·0	9·0	38·8	+ 0·2	36·9	34·4	84·6
February....	29·958	56·1	19·4	36·7	43·5	30·9	12·6	36·9	− 2·6	34·5	30·9	78·8
March	29·348	62·1	13·6	48·5	45·5	33·8	11·7	39·3	− 2·6	37·5	34·6	83·8
April	29·807	71·3	29·0	42·3	60·6	38·6	22·0	49·1	+ 1·8	44·4	39·3	69·5
May	29·926	84·0	33·1	50·9	64·8	41·7	23·1	53·1	+ 0·1	47·7	42·4	67·6
June.....	29·784	74·3	38·3	36·0	62·4	47·2	15·2	53·9	− 5·5	50·8	47·8	80·7
July	29·757	77·7	45·6	32·1	70·1	52·5	17·6	60·0	− 2·7	55·8	52·1	75·7
August.....	29·824	86·2	44·7	41·5	72·9	52·5	20·4	61·8	+ 0·2	57·7	54·1	76·5
September...	29·852	71·0	37·1	33·9	62·8	47·5	15·3	54·9	− 2·4	52·5	50·2	84·5
October.....	29·635	68·0	28·2	39·8	59·5	45·6	13·9	52·9	+ 2·9	50·6	48·4	85·0
November...	29·843	56·7	27·6	29·1	47·2	36·2	11·1	41·9	− 1·6	40·1	38·0	86·4
December...	29·500	53·5	22·1	31·4	45·2	35·0	10·2	40·4	+ 0·5	38·9	36·7	86·9
Means.....	29·768	Highest 86·2	Lowest 13·6	Annual Range 72·6	56·5	41·3	15·2	48·6	− 1·0	45·6	42·4	80·0

MONTH, 1909.	Mean Elastic Force of Vapour.	Mean Weight of Vapour in a Cubic Foot of Air.	Mean Weight of a Cubic Foot of Air.	Mean Amount of Ozone.	Mean Amount of Cloud. (0–10.)	RAIN. Number of Rainy Days.	Amount collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground.	WIND. 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.	From Robinson's Anemometer. Mean Daily Horizontal Movement of the Air.
	in.	grs.	grs.				in.	h	h	h	h	h	h	h	h	h	lbs.	miles.
January.....	0·199	2·3	557	1·1	7·4	12	0·766	51	96	52	15	19	108	240	80	83	0·30	297
February ...	0·173	2·0	559	1·5	6·2	9	0·627	85	127	82	86	30	55	107	61	39	0·29	303
March.....	0·200	2·4	545	4·9	8·4	22	3·080	102	77	41	92	157	148	43	55	29	0·25	303
April	0·240	2·8	543	6·1	5·3	16	1·639	20	64	99	60	82	250	94	24	27	0·26	308
May	0·271	3·0	540	6·3	5·0	10	1·239	73	103	132	48	74	200	43	42	29	0·26	275
June.....	0·333	3·8	537	3·9	8·5	16	3·671	180	131	45	24	49	125	31	86	49	0·16	237
July	0·389	4·3	529	4·8	7·6	18	3·156	95	10	0	8	43	325	161	97	5	0·28	328
August.....	0·419	4·6	528	5·0	5·9	11	1·802	86	54	48	36	46	239	100	79	56	0·11	229
September..	0·364	4·1	536	1·3	7·2	17	2·477	156	120	81	47	52	112	58	46	48	0·10	226
October.....	0·340	3·8	535	5·8	7·5	19	4·059	56	40	17	17	180	320	73	21	20	0·36	353
November...	0·229	2·6	551	1·3	6·5	14	0·790	124	114	34	17	37	150	82	67	95	0·18	277
December...	0·218	2·5	547	2·3	7·5	22	2·400	22	57	84	34	97	263	108	52	27	0·34	357
Sums.....	...	...	...	...	...	186	25·706	1050	993	715	484	866	2295	1140	710	507	...	...
Means.....	0·281	3·2	542	3·7	6·9	...	...	...	...	...	...	...	...	...	...	...	0·24	291

The greatest recorded pressure of the wind on the square foot in the year was 27·0 lbs. on December 3.
The greatest recorded daily horizontal movement of the air in the year was 859 miles on December 3.
The least recorded daily horizontal movement of the air in the year was 36 miles on January 28.

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

Hour, Greenwich Civil Time.	1909. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Midnight	29·994	29·975	29·360	29·797	29·937	29·792	29·764	29·831	29·861	29·635	29·855	29·485	29·774
1h	29·988	29·971	29·360	29·797	29·933	29·788	29·761	29·829	29·858	29·634	29·852	29·485	29·771
2	29·985	29·966	29·356	29·795	29·930	29·782	29·756	29·823	29·854	29·629	29·847	29·490	29·768
3	29·979	29·959	29·348	29·797	29·926	29·776	29·752	29·820	29·849	29·625	29·843	29·491	29·764
4	29·976	29·952	29·343	29·800	29·927	29·777	29·751	29·817	29·844	29·627	29·841	29·485	29·762
5	29·975	29·948	29·342	29·804	29·930	29·778	29·755	29·819	29·844	29·628	29·841	29·484	29·762
6	29·976	29·946	29·345	29·813	29·935	29·779	29·760	29·824	29·848	29·628	29·840	29·488	29·765
7	29·982	29·950	29·349	29·821	29·937	29·781	29·764	29·830	29·851	29·635	29·845	29·492	29·770
8	29·990	29·956	29·353	29·824	29·941	29·784	29·767	29·832	29·856	29·642	29·854	29·501	29·775
9	29·999	29·962	29·356	29·827	29·939	29·786	29·766	29·833	29·860	29·645	29·859	29·508	29·778
10	30·003	29·965	29·358	29·828	29·938	29·789	29·767	29·833	29·861	29·644	29·861	29·519	29·781
11	30·004	29·966	29·352	29·826	29·935	29·788	29·766	29·829	29·859	29·644	29 856	29·518	29·779
Noon	29·998	29·962	29·350	29·822	29·928	29·786	29·763	29·826	29·856	29·638	29·848	29·508	29·774
13h	29·988	29·954	29·345	29·817	29·924	29·783	29·759	29·823	29·850	29·629	29·838	29·499	29·767
14	29·983	29·946	29·339	29·808	29·920	29·781	29·754	29·819	29·846	29·626	29·833	29·491	29·762
15	29·982	29·943	29·336	29·797	29·911	29·777	29·750	29·815	29·842	29·621	29·830	29·492	29·758
16	29·984	29·944	29·332	29·791	29·908	29·773	29·745	29·810	29·840	29·622	29·830	29·495	29·756
17	29·984	29·947	29·335	29·788	29·903	29·774	29·742	29·809	29·839	29·628	29 832	29·498	29·757
18	29·985	29·954	29·341	29·790	29·905	29·776	29·743	29·811	29·843	29·633	29·835	29·499	29·760
19	29·983	29·960	29·347	29·794	29·911	29·779	29·743	29·815	29·850	29·639	29·837	29·505	29·764
20	29·982	29·962	29·351	29·803	29·919	29·786	29·749	29·826	29·857	29·643	29·838	29·508	29·769
21	29·982	29·968	29·353	29·808	29·929	29·797	29·759	29·831	29·863	29·648	29·839	29·512	29·774
22	29·979	29·969	29·353	29·809	29·933	29·799	29·762	29·831	29·863	29·648	29·837	29·517	29·775
23	29·977	29·969	29·353	29·810	29·934	29·800	29·762	29·830	29·862	29·646	29·835	29·519	29·775
24	29·976	29·970	29·353	29·812	29·932	29·799	29·761	29·827	29·858	29·645	29·831	29·515	29·773
Means 0h.–23h.	29·986	29·958	29·348	29·807	29·926	29·784	29·757	29·824	29·852	29·635	29·843	29·500	29·768
Means 1h.–24h.	29·985	29·958	29·348	29·808	29·926	29·784	29·757	29·823	29·852	29·635	29·842	29·501	29·768
Number of Days employed.	31	28	31	30	31	30	31	31	30	31	30	31	...

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

Hour, Greenwich Civil Time.	1909. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	38·0	34·7	37·7	44·3	47·2	50·7	55·7	57·1	51·8	50·6	40·1	39·8	45·6
1h	37·9	34·5	37·4	43·9	46·3	50·2	55·2	56·8	51·4	50·6	40·0	39·4	45·3
2	37·7	34·3	37·1	43·4	45·6	50·0	54·8	56·4	51·2	50·6	40·0	39·1	45·0
3	37·7	34·3	36·8	42·9	44·9	49·5	54·5	55·9	51·1	50·5	39·9	38·9	44·7
4	37·5	34·1	36·6	42·5	44·6	49·3	54·2	55·4	51·0	50·5	39·9	38·5	44·5
5	37·2	34·2	36·4	42·2	44·4	49·5	54·4	55·2	50·9	50·7	39·8	38·4	44·4
6	36·9	34·2	36·1	42·4	46·1	50·2	55·2	55·9	51·1	50·7	39·6	38·6	44·8
7	36·8	34·1	36·3	44·5	49·2	51·6	56·8	57·9	52·1	51·0	39·5	38·8	45·7
8	36·8	34·6	37·1	47·7	53·3	53·0	59·2	61·0	53·7	52·0	39·7	39·0	47·3
9	37·2	35·6	38·8	51·0	56·4	54·5	61·2	63·9	55·8	53·8	40·6	39·4	49·0
10	38·1	37·1	40·3	53·3	58·4	55·8	62·9	66·2	57·4	55·1	42·1	40·4	50·6
11	39·4	38·8	41·6	55·5	59·7	56·8	63·9	67·6	59·1	56·1	44·0	41·5	52·0
Noon	40·5	40·6	42·7	56·6	60·7	57·8	64·4	68·3	59·6	56·7	45·4	42·6	53·0
13h	41·3	41·5	42·9	57·2	61·5	58·5	65·3	69·2	60·3	57·2	46·0	43·3	53·7
14	41·6	42·0	43·2	57·4	61·4	59·4	65·6	69·7	60·3	57·1	46·2	43·2	53·9
15	41·2	41·8	43·0	57·3	61·4	59·1	66·0	69·4	59·8	56·9	45·7	42·7	53·7
16	40·7	41·1	42·5	56·0	60·8	58·7	65·9	68·4	59·3	55·8	44·8	42·0	53·0
17	40·1	39·7	41·6	54·2	59·6	57·7	65·0	66·9	58·1	54·2	43·9	41·4	51·9
18	39·8	38·3	40·9	52·1	57·5	56·8	63·6	65·2	56·5	53·0	43·2	41·0	50·7
19	39·4	37·5	40·0	49·7	55·1	55·3	62·1	62·7	55·3	52·1	42·3	40·5	49·3
20	39·1	36·6	39·4	47·7	52·6	53·7	60·2	60·4	54·3	51·5	41·5	40·3	48·1
21	38·7	35·6	38·8	46·2	50·6	52·4	58·8	58·6	53·2	51·0	40·7	40·3	47·1
22	38·4	35·4	38·6	45·4	49·4	51·5	57·7	57·9	52·5	50·7	40·4	40·1	46·5
23	38·1	34·9	38·4	44·7	48·4	50·9	56·9	57·3	52·1	50·6	40·1	40·0	46·0
24	37·8	34·5	38·3	44·2	47·7	50·4	56·1	56·7	51·9	50·4	40·0	39·7	45·6
Means 0h.–23h.	38·8	36·9	39·3	49·1	53·1	53·9	60·0	61·8	54·9	52·9	41·9	40·4	48·6
Means 1h.–24h.	38·7	36·9	39·4	49·1	53·2	53·9	60·0	61·8	54·9	52·9	41·9	40·4	48·6
Number of Days employed.	31	28	31	30	31	30	31	31	30	31	30	31	...

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

Hour, Greenwich Civil Time.	1909. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	36·7	33·2	36·5	42·0	44·7	49·1	53·6	55·6	50·5	49·5	39·1	38·6	44·1
1h	36·5	33·1	36·3	41·8	44·1	48·8	53·3	55·4	50·3	49·4	39·0	38·1	43·8
2	36·4	33·0	36·0	41·4	43·6	48·6	52·9	55·0	50·2	49·4	39·0	37·8	43·6
3	36·3	32·8	35·8	41·1	43·2	48·3	52·8	54·6	50·0	49·3	39·0	37·6	43·4
4	36·1	32·8	35·6	40·7	42·9	48·2	52·6	54·1	50·0	49·3	38·8	37·4	43·2
5	35·9	32·9	35·4	40·4	42·8	48·2	52·7	53·9	50·1	49·4	38·7	37·2	43·1
6	35·7	32·8	35·2	40·6	44·1	48·8	53·2	54·3	50·2	49·5	38·5	37·3	43·4
7	35·4	32·7	35·3	42·2	46·0	49·5	54·2	55·5	50·9	49·8	38·4	37·7	44·0
8	35·5	33·1	36·0	44·1	48·4	50·4	55·5	57·2	52·0	50·4	38·5	37·9	44·9
9	35·8	33·9	37·2	45·9	49·8	51·2	56·4	58·6	53·3	51·5	39·2	38·3	45·9
10	36·6	34·8	38·1	46·8	50·6	51·9	57·1	59·7	54·0	52·1	40·3	39·2	46·8
11	37·3	35·8	38·9	47·6	51·2	52·4	57·5	60·4	54·7	52·8	41·3	39·9	47·5
Noon	38·1	37·0	39·5	48·0	51·4	53·0	58·0	60·7	54·9	52·9	42·3	40·7	48·0
13h	38·4	37·4	39·6	48·4	51·7	53·4	58·5	61·2	55·5	52·9	42·8	40·9	48·4
14	38·5	37·3	39·8	48·4	51·9	53·7	58·5	61·4	55·4	52·9	42·9	40·8	48·5
15	38·3	37·2	39·7	48·3	51·8	53·6	58·8	61·4	55·4	52·7	42·7	40·4	48·4
16	38·0	37·0	39·6	47·9	51·2	53·2	58·8	60·9	55·1	51·9	42·1	39·9	48·0
17	37·6	36·2	39·1	46·9	50·5	52·8	58·1	60·2	54·5	51·1	41·7	39·6	47·4
18	37·6	35·6	38·7	46·0	49·7	52·3	57·5	59·6	53·7	50·6	41·2	39·2	46·8
19	37·4	35·1	38·1	45·0	48·9	51·6	56·9	58·4	53·0	50·1	40·6	39·0	46·2
20	37·2	34·4	37·7	43·8	47·8	50·9	56·1	57·3	52·2	49·8	40·0	38·8	45·5
21	37·1	33·8	37·2	43·0	46·7	50·3	55·5	56·5	51·5	49·6	39·3	38·9	44·9
22	36·9	33·7	37·2	42·6	46·1	49·6	55·0	56·1	51·1	49·5	39·2	38·7	44·6
23	36·8	33·4	37·0	42·2	45·7	49·3	54·5	55·7	50·9	49·4	39·0	38·5	44·4
24	36·5	33·0	37·0	41·9	45·2	48·9	54·0	55·2	50·7	49·3	39·0	38·5	44·1
Means 0h.–23h.	36·9	34·5	37·5	44·4	47·7	50·8	55·7	57·7	52·5	50·7	40·2	38·8	45·6
Means 1h.–24h.	36·9	34·5	37·5	44·4	47·7	50·8	55·8	57·6	52·5	50·7	40·1	38·8	45·6
Number of Days employed.	31	28	31	30	31	30	31	31	30	31	30	31	...

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.	1909. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	34·9	30·8	34·9	39·3	41·9	47·4	51·6	54·3	49·2	48·3	37·8	37·0	42·3
1h	34·6	30·8	34·8	39·4	41·6	47·3	51·5	54·1	49·2	48·1	37·7	36·4	42·1
2	34·6	30·8	34·5	39·0	41·3	47·1	51·1	53·7	49·2	48·1	37·7	36·1	41·9
3	34·4	30·3	34·5	38·9	41·2	47·0	51·1	53·4	48·9	48·0	37·8	35·9	41·8
4	34·2	30·6	34·2	38·6	40·9	47·0	51·0	52·8	49·0	48·0	37·4	35·9	41·6
5	34·1	30·7	34·0	38·2	40·9	46·8	51·0	52·6	49·3	48·0	37·3	35·6	41·5
6	34·1	30·4	33·9	38·4	41·8	47·3	51·3	52·8	49·3	48·2	37·1	35·5	41·7
7	33·5	30·3	33·9	39·5	42·6	47·4	51·8	53·3	49·7	48·6	37·0	36·2	42·0
8	33·7	30·7	34·5	40·1	43·5	47·8	52·2	53·9	50·3	48·8	36·9	36·5	42·4
9	33·9	31·3	35·0	40·6	43·7	48·0	52·3	54·2	50·9	49·3	37·4	36·9	42·8
10	34·5	31·6	35·3	40·4	43·6	48·2	52·2	54·4	50·9	49·2	38·1	37·7	43·0
11	34·6	31·9	35·6	40·1	43·7	48·4	52·2	54·7	50·8	49·7	38·1	37·9	43·1
Noon	35·0	32·4	35·6	40·0	43·3	48·7	52·7	54·8	50·7	49·4	38·7	38·4	43·3
13h	34·8	32·3	35·6	40·3	43·2	48·9	53·0	55·0	51·3	49·0	39·2	38·1	43·4
14	34·7	31·6	35·7	40·2	43·6	48·6	52·7	55·0	51·1	49·0	39·2	37·9	43·3
15	34·7	31·6	35·7	40·1	43·4	48·7	52·9	55·2	51·5	48·9	39·3	37·6	43·3
16	34·6	31·9	36·1	40·3	42·8	48·3	53·0	55·0	51·3	48·2	38·9	37·3	43·1
17	34·4	31·6	36·0	39·8	42·5	48·4	52·5	54·9	51·3	48·1	39·2	37·3	43·0
18	34·7	32·0	35·9	39·8	42·7	48·2	52·4	55·0	51·1	48·2	38·8	36·9	43·0
19	34·8	31·8	35·6	40·0	42·9	48·1	52·4	54·8	50·8	48·1	38·5	37·1	42·9
20	34·7	31·2	35·5	39·5	43·0	48·2	52·5	54·6	50·1	48·1	38·1	36·9	42·7
21	34·9	31·1	35·0	39·4	42·6	48·2	52·5	54·6	49·8	48·2	37·6	37·1	42·6
22	34·9	31·1	35·3	39·4	42·6	47·7	52·6	54·5	49·7	48·2	37·7	36·9	42·5
23	35·0	31·0	35·1	39·3	42·8	47·6	52·3	54·3	49·7	48·1	37·6	36·6	42·4
24	34·8	30·5	35·2	39·2	42·5	47·3	52·0	53·9	49·5	48·1	37·7	36·9	42·3
Means 0h.–23h.	34·5	31·2	35·1	39·6	42·6	47·9	52·1	54·2	50·2	48·5	38·0	36·9	42·6
Means 1h.–24h.	34·5	31·2	35·1	39·6	42·6	47·9	52·1	54·2	50·2	48·5	38·0	36·9	42·6

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

Hour, Greenwich Civil Time.	1909. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
Midnight.	89	85	90	82	83	89	87	90	91	92	92	90	88
1h	88	86	90	84	85	90	88	91	92	92	92	90	89
2	89	86	90	84	86	90	88	91	93	92	92	90	89
3	88	85	92	86	87	92	89	92	92	92	93	90	90
4	88	86	92	86	88	92	89	91	93	92	91	91	90
5	89	86	91	86	88	91	88	91	94	91	91	90	90
6	90	85	92	86	86	90	87	90	94	92	91	90	89
7	88	85	91	83	78	86	83	85	92	92	91	92	87
8	89	85	90	76	70	82	78	78	88	89	90	91	84
9	88	84	87	68	62	78	73	71	85	85	89	91	80
10	87	81	83	62	58	76	68	66	79	81	86	90	76
11	83	77	80	56	55	73	66	63	74	79	79	88	73
Noon.	81	72	77	54	53	71	65	62	73	77	78	86	71
13h	78	70	76	54	51	70	64	60	72	74	78	81	69
14	78	68	75	53	52	68	63	59	72	74	77	81	68
15	78	67	76	53	52	69	63	60	74	75	79	83	69
16	79	70	79	56	52	69	63	62	75	76	80	84	70
17	80	74	81	58	53	71	64	65	78	79	83	86	73
18	82	78	83	64	58	73	67	70	82	84	84	86	76
19	84	80	85	69	64	77	71	76	85	86	87	88	79
20	85	81	86	74	70	81	76	82	86	89	88	88	82
21	87	83	87	78	75	86	80	86	88	90	89	89	85
22	88	84	89	80	77	87	83	88	91	92	90	89	86
23	89	85	88	81	81	89	85	89	92	92	91	88	87
24	89	85	89	82	83	90	86	90	92	92	92	90	88
Means 0h.–23h.	85	80	85	70	69	81	76	77	85	86	87	88	81
Means 1h.–24h.	85	80	85	70	69	81	76	77	85	86	87	88	81

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 1909.

Month, 1909.	Registered Duration of Sunshine in the Hour ending 5h.	6h.	7h.	8h.	9h.	10h.	11h.	Noon.	13h.	14h.	15h.	16h.	17h.	18h.	19h.	20h.	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.
	h		h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h		o
January	...	...	...	...	0·7	5·7	8·9	9·7	12·4	11·8	9·1	2·4	...	...	...	...	60·7	259·1	0·234	18
February	...	...	...	2·4	6·5	8·8	11·1	12·5	13·3	13·5	11·8	7·8	3·6	...	...	...	91·3	277·2	0·329	26
March	...	...	3·0	6·4	8·4	9·4	9·6	8·7	8·4	7·9	6·4	4·3	2·5	0·3	...	...	75·3	366·0	0·206	37
April	...	6·3	17·0	19·8	22·3	21·4	23·1	22·1	22·6	21·4	22·1	20·1	17·0	11·6	2·7	...	249·5	413·6	0·603	48
May	5·4	22·2	25·2	25·9	25·2	24·6	24·2	23·5	22·3	23·1	21·4	23·3	22·6	21·0	13·7	2·3	325·9	481·5	0·677	57
June	1·7	4·3	4·2	2·6	5·5	7·4	8·1	9·0	8·5	10·7	10·3	8·8	9·1	9·3	6·1	1·3	106·9	494·5	0·216	62
July	2·2	6·1	7·4	13·1	13·9	14·0	12·1	12·4	12·9	12·7	15·7	16·0	14·4	13·4	10·1	2·7	179·1	497·7	0·360	60
August	...	8·6	14·1	16·9	18·7	19·7	19·2	18·0	17·9	17·7	18·5	17·8	16·8	15·5	7·8	0·3	227·5	450·6	0·505	52
September	...	0·5	5·1	7·8	10·2	10·9	11·7	10·6	13·0	11·3	8·6	6·9	6·4	3·0	0·2	...	106·2	378·8	0·280	41
October	...	...	0·7	5·9	8·4	10·2	9·3	10·5	10·4	8·9	10·9	10·0	5·4	0·1	...	...	90·7	330·1	0·275	30
November	...	...	...	0·4	3·8	11·2	11·9	13·7	13·5	11·4	8·1	3·0	0·5	...	...	...	77·5	265·6	0·292	20
December	...	...	...	...	1·3	6·7	7·9	10·4	9·6	7·6	6·3	0·4	...	...	...	...	50·2	243·8	0·206	16
For the Year	9·3	48·0	76·7	101·2	124·9	150·0	157·1	161·1	164·8	158·0	149·2	120·8	98·3	74·2	40·6	6·6	1640·8	4458·5	0·368	...

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 1909.

(The readings of the maximum and minimum thermometers apply to the twenty-four hours ending at 21h and are occasionally known to occur at different times of the day for different sets of thermometers.)

[Until the end of April observations of the maximum and minimum thermometers only were made on Sundays, Good Friday, and Easter Monday.]

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.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	47·3	41·0	43·0	44·9	46·8	46·7	+0·1	+0·9	+0·4	−0·2	−0·2	+0·3	1	47·5	41·6	43·0	44·9	46·8	47·0	+0·3	+1·5	+0·4	−0·2	−0·2	+0·6
2	48·3	44·2	45·9	47·3	47·9	47·2	+0·1	−0·4	−0·3	−0·3	−0·2	+0·1	2	48·2	44·2	45·9	47·4	47·9	47·0	0·0	−0·4	−0·3	−0·2	−0·2	−0·1
3	47·6	45·1	...	...	...	...	+0·1	+0·9	...	...	...	...	3	47·8	45·2	...	...	...	...	+0·3	+1·0	...	...	...	...
4	47·0	42·2	44·1	45·3	45·4	43·2	+1·0	+0·1	+1·1	−0·3	−0·7	+0·8	4	47·3	42·2	44·7	46·0	46·2	43·4	+1·3	+0·1	+1·7	+0·4	+0·1	+1·0
5	44·1	33·1	33·9	36·0	36·6	35·9	+1·7	+0·6	+0·8	−0·3	0·0	+0·3	5	44·5	32·3	33·8	36·9	36·7	35·7	+2·1	−0·2	+0·7	+0·6	+0·1	+0·1
6	44·8	35·1	39·9	42·7	43·4	43·4	+0·3	+0·7	+0·2	0·0	0·0	−0·1	6	44·6	33·0	39·8	42·7	43·1	43·4	+0·1	−1·4	+0·1	0·0	−0·3	−0·1
7	45·0	36·2	40·8	43·6	43·2	43·0	−0·3	−0·3	−0·3	0·0	+0·2	0·0	7	45·1	35·1	40·8	43·7	43·1	43·0	−0·2	−1·4	−0·3	+0·1	+0·1	0·0
8	44·0	36·1	38·0	40·2	41·4	38·0	0·0	+0·2	+0·5	+0·1	0·0	+0·3	8	44·5	35·1	37·9	40·5	41·6	36·9	+0·5	−0·8	+0·4	+0·4	+0·2	−0·8
9	40·5	34·6	36·1	39·7	39·9	39·1	−0·3	0·0	0·0	−0·1	+0·7	+0·3	9	40·6	34·1	36·1	39·9	39·9	38·9	−0·2	−0·5	0·0	+0·1	+0·7	+0·1
10	48·0	37·1	...	...	...	...	0·0	0·0	...	...	...	...	10	47·8	36·1	...	...	...	...	−0·2	−1·0	...	...	...	...
11	50·2	43·6	47·3	49·3	48·8	44·0	−0·2	0·0	−0·3	−0·2	+0·2	+0·4	11	50·0	42·9	47·0	49·3	48·7	43·7	−0·4	−0·7	−0·6	−0·2	+0·1	+0·1
12	45·5	36·6	41·2	43·8	43·4	36·8	+0·2	+0·1	+0·2	−0·5	+0·5	+0·3	12	45·1	35·6	41·1	43·7	42·9	36·1	−0·2	−0·9	+0·1	−0·6	0·0	−0·4
13	47·0	34·4	36·6	39·7	41·9	46·2	0·0	+0·3	+0·2	+0·1	+0·1	−0·5	13	47·0	34·0	36·5	39·7	41·8	46·1	0·0	−0·1	+0·1	+0·1	0·0	−0·6
14	47·6	39·9	41·7	45·7	45·5	47·0	+0·4	+0·4	−0·1	−0·1	−0·2	+0·4	14	47·5	39·4	41·5	45·8	45·7	46·9	+0·3	−0·1	−0·3	0·0	0·0	+0·3
15	51·0	38·9	39·7	42·6	43·9	39·4	+0·6	+0·3	+0·4	0·0	+0·3	+0·5	15	50·6	38·3	39·5	42·6	43·8	38·9	+0·2	−0·3	+0·2	0·0	+0·2	0·0
16	41·7	36·1	36·5	38·7	40·2	38·0	+0·5	−0·3	−0·2	+0·3	+0·1	+0·4	16	41·7	35·9	36·2	38·8	40·0	37·8	+0·5	−0·5	−0·5	+0·4	−0·1	+0·2
17	49·4	34·8	...	...	...	...	−0·3	−0·2	...	...	...	...	17	49·5	33·9	...	...	...	...	−0·2	−1·1	...	...	...	...
18	48·8	45·0	45·8	47·1	46·9	47·2	+0·3	−0·1	+0·2	−0·1	+0·5	+0·1	18	48·6	44·9	45·8	47·1	46·7	47·0	+0·1	−0·2	+0·2	−0·1	+0·3	−0·1
19	47·6	38·6	41·1	42·6	42·8	39·0	+0·4	+1·8	+0·1	−0·3	+0·2	+1·6	19	47·4	38·1	40·1	42·8	42·9	39·1	+0·2	+1·3	−0·9	−0·1	+0·3	+1·7
20	41·0	31·1	34·9	38·6	40·0	35·7	0·0	+2·1	+0·4	−0·5	−0·3	+1·9	20	40·8	29·6	34·4	38·8	39·9	34·7	−0·2	+0·6	−0·1	−0·3	−0·4	+0·9
21	41·0	31·9	33·2	37·7	40·1	37·9	−0·8	−0·1	−0·1	−0·8	−0·7	+0·2	21	41·6	31·6	32·9	38·0	40·4	37·7	−0·2	−0·4	−0·4	−0·5	−0·4	0·0
22	38·0	32·8	35·1	35·9	33·9	33·5	0·0	−0·3	+0·1	−0·1	−0·1	−0·1	22	37·8	32·7	35·0	36·0	34·0	33·3	−0·2	−0·4	0·0	0·0	0·0	−0·3
23	33·8	31·9	33·4	32·9	32·9	32·4	−0·3	−0·2	−0·1	−0·2	0·0	−0·3	23	33·7	31·6	33·0	32·9	33·0	32·1	−0·4	−0·5	−0·5	−0·2	+0·1	−0·6
24	33·0	26·2	...	...	...	...	−0·9	+1·1	...	...	...	...	24	33·9	25·1	...	...	...	...	0·0	0·0	...	...	...	...
25	40·4	27·1	29·1	36·9	39·8	33·2	−0·4	+1·9	+1·4	+0·2	+0·1	+0·7	25	40·4	26·1	29·6	36·9	39·9	31·7	−0·4	+0·9	+1·9	+0·2	+0·2	−0·8
26	39·8	29·6	33·3	37·4	39·2	32·4	−0·8	+0·3	−0·1	−1·0	−0·3	+1·0	26	40·6	28·0	32·9	37·7	39·3	31·8	0·0	−1·3	−0·5	−0·7	−0·2	+0·4
27	33·9	26·4	28·0	29·0	28·8	27·0	+2·0	+0·2	−0·6	−0·5	−0·6	−0·4	27	32·8	26·5	28·4	29·1	29·1	27·1	+0·9	+0·3	−0·2	−0·4	−0·3	−0·3
28	30·8	25·0	26·4	27·9	29·6	25·0	+0·6	+1·0	−0·5	−0·7	+0·4	+1·0	28	30·3	25·1	26·7	28·4	29·5	25·3	+0·1	+1·1	−0·2	−0·2	+0·3	+1·3
29	44·8	20·7	29·9	39·9	43·4	39·6	−0·7	−0·1	+0·4	−0·8	−0·8	+0·4	29	45·1	20·1	30·7	39·9	44·4	39·4	−0·4	−0·7	+1·2	−0·8	+0·2	+0·2
30	39·6	32·1	36·9	36·9	35·4	32·7	+0·4	+1·0	0·0	+0·2	0·0	+1·1	30	40·6	31·3	36·9	36·4	35·1	32·4	+1·4	+0·2	0·0	−0·3	−0·3	+0·8
31	38·2	30·1	...	...	...	...	+0·2	+0·9	...	...	...	...	31	37·9	29·1	...	...	...	...	−0·1	−0·1	...	...	...	...
Means	43·2	34·8	37·4	40·1	40·8	38·6	+0·1	+0·4	+0·1	−0·2	0·0	+0·4	Means	43·3	34·2	37·3	40·2	40·9	38·3	+0·2	−0·2	+0·1	−0·1	0·0	+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.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	43·5	35·0	41·1	43·3	42·1	37·9	−0·4	−0·1	0·0	+0·2	−0·3	+0·3	1	44·1	34·9	41·2	43·4	41·9	37·7	+0·2	−0·2	+0·1	+0·3	−0·5	+0·1
2	45·0	31·2	34·8	39·8	44·2	44·4	−0·2	+0·2	+0·2	−0·1	−0·2	0·0	2	45·5	30·4	34·5	39·9	44·6	44·0	+0·3	−0·6	−0·1	0·0	+0·2	−0·4
3	54·1	43·9	50·4	53·0	53·3	52·2	−0·1	−0·2	−0·2	−0·1	−0·1	−0·2	3	54·1	44·0	50·4	53·1	53·3	52·0	−0·1	−0·1	−0·2	0·0	−0·1	−0·4
4	56·0	50·2	51·8	53·6	53·9	51·6	−0·1	−0·5	0·0	0·0	−0·1	+0·2	4	55·9	50·2	51·9	53·7	53·9	51·2	−0·2	−0·5	+0·1	+0·1	−0·1	−0·2
5	51·6	42·1	46·6	45·8	47·0	42·9	−0·2	+1·0	+0·2	0·0	+0·4	+1·3	5	51·6	41·1	46·0	45·9	46·9	42·3	−0·2	0·0	−0·4	+0·1	+0·3	+0·7
6	45·0	35·3	38·5	42·8	44·9	35·6	−0·9	+0·2	+0·4	0·0	+0·5	+3·9	6	44·9	34·5	38·2	42·9	44·6	35·9	−1·0	−0·6	+0·1	+0·1	+0·2	+4·2
7	43·3	27·7	…	…	…	…	−0·8	+1·6	…	…	…	…	7	44·1	27·7	…	…	…	…	0·0	+1·6	…	…	…	…
8	39·2	28·9	32·7	36·8	37·4	33·0	−0·8	+0·2	+0·1	−0·8	−0·2	+0·8	8	39·9	27·9	32·5	37·2	37·9	32·4	−0·1	−0·8	−0·1	−0·4	+0·3	+0·2
9	40·9	31·5	35·6	39·9	38·8	39·9	+0·1	+1·2	+0·1	−0·5	+0·1	+0·2	9	40·9	30·3	35·9	40·3	38·9	39·8	+0·1	0·0	+0·4	−0·1	+0·2	+0·1
10	40·9	33·3	34·2	37·9	39·5	36·5	+0·1	−0·5	−0·1	−0·2	−0·1	−0·1	10	40·4	33·2	34·0	37·9	39·7	36·3	−0·4	−0·6	−0·3	−0·2	+0·1	−0·3
11	39·6	33·1	36·9	38·6	39·1	33·9	−0·8	−0·1	−0·1	0·0	−0·2	+0·3	11	40·0	32·2	36·8	38·7	39·2	33·1	−0·4	−1·0	−0·2	+0·1	−0·1	−0·5
12	37·0	30·3	31·2	34·8	35·3	30·4	+0·2	0·0	−0·2	0·0	−0·1	−0·3	12	38·6	29·3	31·2	35·2	35·2	29·9	+1·8	−1·0	−0·2	+0·4	−0·2	−0·8
13	37·0	28·2	31·9	34·9	36·4	35·0	−0·3	−0·1	−0·9	−0·2	−0·2	+0·4	13	37·5	27·1	31·9	35·2	36·7	35·1	+0·2	−1·2	−0·9	+0·1	+0·1	+0·5
14	41·0	26·1	…	…	…	…	+0·1	+1·1	…	…	…	…	14	41·4	25·1	…	…	…	…	+0·5	+0·1	…	…	…	…
15	49·0	38·3	43·7	48·0	47·7	40·1	+0·2	+0·1	+0·5	+0·3	0·0	+0·4	15	48·6	38·1	43·9	47·6	47·6	40·0	−0·2	−0·1	+0·7	−0·1	−0·1	+0·3
16	40·8	32·2	33·8	40·0	40·1	39·8	−0·7	0·0	−0·6	+0·4	−0·4	+0·9	16	40·6	31·6	33·7	39·9	40·4	39·7	−0·9	−0·6	−0·7	+0·3	−0·1	+0·8
17	45·5	31·6	33·4	42·4	44·1	34·9	0·0	−0·4	−0·1	−0·2	+0·1	+3·6	17	45·8	31·1	33·2	42·7	44·3	34·9	+0·3	−0·9	−0·3	+0·1	+0·3	+3·6
18	44·9	31·1	36·7	43·9	42·9	34·1	−1·5	+2·8	−1·4	−0·8	−0·1	+1·0	18	46·6	30·1	37·9	44·9	43·2	33·1	+0·2	+1·8	−0·2	+0·2	+0·2	0·0
19	46·1	29·0	33·0	40·1	45·9	32·9	−1·3	+1·6	+0·3	−0·7	−1·0	+1·5	19	47·4	26·8	33·2	40·7	46·9	31·8	0·0	−0·6	+0·5	−0·1	0·0	+0·4
20	47·7	30·1	34·7	44·2	47·7	34·4	−2·3	+3·7	−0·8	−1·8	−1·1	+1·8	20	49·3	28·1	36·7	44·9	48·4	34·1	−0·7	+1·7	+1·2	−1·1	−0·4	+1·5
21	52·1	30·9	…	…	…	…	0·0	+2·7	…	…	…	…	21	53·5	29·2	…	…	…	…	+1·4	+1·0	…	…	…	…
22	44·9	26·1	30·0	39·3	44·9	32·4	−2·0	+0·5	−0·6	−0·1	−0·8	+1·8	22	46·6	26·0	30·0	39·6	45·8	32·2	−0·3	+0·4	−0·6	+0·2	+0·1	+1·6
23	42·1	20·6	25·0	32·9	38·9	33·0	+1·0	+1·2	+0·4	+1·3	+1·5	0·0	23	42·6	20·3	24·9	32·7	40·0	32·9	+1·5	+0·9	+0·3	+1·1	+2·6	−0·1
24	38·2	28·2	29·2	36·5	34·1	31·6	−1·7	−0·1	−0·4	−0·4	−0·3	+0·2	24	40·6	28·1	28·8	37·3	34·9	31·3	+0·7	−0·2	−0·8	+0·4	+0·5	−0·1
25	34·5	30·4	34·1	34·2	33·7	30·8	−1·0	−0·2	−0·2	−0·1	+0·1	+0·2	25	34·8	30·3	34·1	34·2	33·9	30·6	−0·7	−0·3	−0·2	−0·1	+0·3	0·0
26	35·0	30·1	32·9	34·7	33·9	30·7	−0·8	0·0	−0·2	−0·2	+0·2	+0·4	26	35·1	30·0	32·9	34·7	33·8	30·1	−0·7	−0·1	−0·2	−0·2	+0·1	−0·2
27	34·9	28·6	31·9	33·7	33·9	32·1	−0·2	−0·3	−0·4	−0·2	0·0	0·0	27	34·6	28·2	31·9	33·7	32·9	31·8	−0·5	−0·7	−0·4	−0·2	−1·0	−0·3
28	34·0	29·1	…	…	…	…	−0·5	−0·3	…	…	…	…	28	33·8	28·3	…	…	…	…	−0·7	−1·1	…	…	…	…
Means	43·0	31·9	36·0	40·5	41·7	36·7	−0·5	+0·5	−0·2	−0·2	−0·1	+0·8	Means	43·5	31·2	36·1	40·7	41·9	36·3	0·0	−0·1	−0·1	0·0	+0·1	+0·4

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.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	33·0	26·6	29·9	31·9	32·7	30·0	−0·5	−0·5	−0·2	−0·7	−0·1	−0·6	1	33·3	26·3	29·9	32·0	32·9	29·9	−0·2	−0·8	−0·2	−0·6	+0·1	−0·7
2	36·1	18·4	26·4	33·4	34·9	30·1	−2·2	+1·6	−0·2	−0·4	−0·7	+0·3	2	36·1	18·4	27·0	33·7	35·1	29·9	−2·2	+1·6	+0·4	−0·1	−0·5	+0·1
3	34·6	27·4	27·9	33·5	30·9	30·9	−3·8	−0·5	0·0	−1·3	−0·5	0·0	3	36·3	26·8	27·9	34·0	30·9	30·7	−2·1	−1·1	0·0	−0·8	−0·5	−0·2
4	35·0	25·2	30·4	33·7	33·9	25·9	0·0	+3·1	−0·5	+0·2	−0·7	+3·5	4	34·1	25·2	30·3	32·9	33·1	26·2	−0·9	+3·1	−0·6	−0·6	−1·5	+3·8
5	39·4	17·6	23·8	36·9	38·7	29·0	−2·3	+4·0	+0·4	−0·2	+0·1	+1·2	5	39·8	17·9	24·1	36·8	38·4	28·9	−1·9	+4·3	+0·7	−0·3	−0·2	+1·1
6	38·1	28·0	34·4	33·5	37·0	37·8	+0·3	+0·5	−0·1	−0·1	−0·6	+0·3	6	38·6	27·9	34·2	33·5	37·4	37·9	+0·8	+0·4	−0·3	−0·1	−0·2	+0·4
7	44·0	33·2	...	...	...	...	0·0	−0·6	...	...	...	...	7	44·5	33·1	...	...	...	...	+0·5	−0·7	...	...	...	...
8	47·0	31·8	38·2	44·9	46·7	36·0	−2·2	+1·6	−1·5	−1·1	−1·4	+0·2	8	48·4	30·9	41·4	45·7	47·0	35·7	−0·8	+0·7	+1·7	−0·3	−1·1	−0·1
9	38·3	33·1	34·1	36·1	37·9	34·9	−0·7	−0·3	−0·4	−0·7	−0·1	+0·3	9	39·8	33·0	34·3	37·1	38·9	34·8	+0·8	−0·4	−0·2	+0·3	+0·9	+0·2
10	41·0	34·0	37·3	37·9	40·1	36·2	0·0	−0·1	−0·4	−0·1	−0·3	+0·1	10	40·9	34·1	38·0	38·4	40·2	36·1	−0·1	0·0	+0·3	+0·4	−0·2	0·0
11	36·9	33·4	34·7	34·9	34·9	34·1	+0·1	+0·2	+0·1	+0·2	+0·1	+0·2	11	36·6	33·1	34·3	34·8	34·8	33·9	−0·2	−0·1	−0·3	+0·1	0·0	0·0
12	37·8	33·3	33·7	35·9	36·1	37·4	+0·3	−0·3	0·0	−0·4	−0·3	0·0	12	37·6	32·6	32·9	34·9	36·0	37·4	+0·1	−1·0	−0·8	−1·4	−0·4	0·0
13	41·0	33·0	35·4	38·6	39·9	37·9	−0·9	−0·1	−0·2	0·0	+0·3	+0·8	13	41·2	32·2	35·6	38·3	39·8	37·8	−0·7	−0·9	0·0	−0·3	+0·2	+0·7
14	38·2	32·4	...	...	...	...	+0·8	+0·1	...	...	...	...	14	38·8	31·9	...	...	...	...	+1·4	−0·4	...	...	...	...
15	35·2	29·1	31·9	34·9	32·1	31·9	−0·5	−0·2	−0·1	+0·1	−0·3	+0·1	15	35·8	28·4	32·0	34·9	31·9	31·8	+0·1	−0·9	0·0	+0·1	−0·5	0·0
16	39·3	27·9	31·5	38·7	38·1	33·7	+0·2	+0·1	−0·5	−0·2	−0·2	+0·6	16	38·7	26·9	31·7	38·7	37·9	33·0	−0·4	−0·9	−0·3	−0·2	−0·4	−0·1
17	45·1	25·7	33·1	42·9	43·3	37·4	−0·2	+2·6	−1·2	+0·3	−0·2	+0·4	17	45·5	24·2	33·9	42·8	44·2	37·1	+0·2	+1·1	−0·4	+0·2	+0·7	+0·1
18	47·8	36·3	41·8	47·0	43·2	43·4	−2·1	+0·6	−0·8	−0·5	+0·1	+0·3	18	49·1	35·6	42·4	47·8	43·6	43·2	−0·8	−0·1	−0·2	+0·3	+0·5	+0·1
19	55·5	42·3	46·2	49·5	54·0	46·1	−1·5	−0·3	−0·4	−0·4	+0·3	+0·7	19	56·2	42·3	46·8	50·3	55·1	45·9	−0·8	−0·3	+0·2	+0·4	+1·4	+0·5
20	53·5	43·2	47·7	51·2	53·0	46·0	−0·9	+1·1	0·0	−0·7	+0·3	+0·3	20	54·9	43·1	48·0	52·5	54·1	45·9	+0·5	+1·0	+0·3	+0·6	+1·4	+0·2
21	49·2	38·8	...	...	...	...	−1·8	0·0	...	...	...	...	21	50·4	37·6	...	...	...	...	−0·6	−1·2	...	...	...	...
22	51·0	42·1	46·0	49·9	47·9	44·9	−1·1	+0·1	−0·8	−0·5	−0·4	+0·3	22	52·7	42·0	47·8	51·8	48·1	44·9	+0·6	0·0	+1·0	+1·4	−0·2	+0·3
23	48·3	42·2	44·5	46·8	46·7	44·1	−1·9	−0·1	−0·2	0·0	−0·3	+0·7	23	50·8	42·1	45·0	47·8	48·1	43·9	+0·6	−0·2	+0·3	+1·0	+1·1	+0·5
24	50·0	40·1	46·1	49·3	48·9	49·9	−1·0	+1·1	−0·4	−0·1	0·0	+0·2	24	50·6	39·2	46·4	49·7	48·9	49·7	−0·4	+0·2	−0·1	+0·3	0·0	0·0
25	53·0	44·0	48·4	51·4	51·6	44·3	−1·0	+0·2	−0·5	−0·2	+0·2	+0·5	25	53·6	43·2	48·3	50·9	51·7	44·2	−0·4	−0·6	−0·6	−0·7	+0·3	+0·4
26	47·7	38·7	40·8	46·7	45·5	43·2	−0·6	+0·2	+0·1	+0·8	+0·5	+0·7	26	48·2	38·1	40·5	46·1	45·2	42·9	−0·1	−0·4	−0·2	+0·2	+0·2	+0·4
27	51·9	32·2	41·3	49·8	50·4	41·4	−0·4	+0·1	−0·1	+1·2	−0·2	+0·8	27	52·6	31·1	41·9	48·9	50·9	41·3	+0·3	−1·0	+0·5	+0·3	+0·3	+0·7
28	52·0	39·2	...	...	...	...	−1·2	+0·3	...	...	...	...	28	52·5	38·9	...	...	...	...	−0·7	0·0	...	...	...	...
29	60·8	47·1	52·9	57·7	55·9	49·8	−1·3	0·0	−0·2	−1·5	−0·5	+1·0	29	62·1	46·7	53·7	58·6	56·9	49·1	0·0	−0·4	+0·6	−0·6	+0·5	+0·3
30	50·0	45·8	48·1	47·6	48·9	47·9	−0·9	−0·2	−1·0	−0·3	−0·5	+0·3	30	50·1	46·2	49·0	47·6	48·9	47·6	−0·8	+0·2	−0·1	−0·3	−0·5	0·0
31	51·0	40·7	48·7	49·9	49·6	47·1	−2·1	+0·5	−1·1	−0·2	0·0	+0·5	31	52·4	39·6	50·4	50·8	49·9	47·1	−0·7	−0·6	+0·6	+0·7	+0·3	+0·5
Means	44·6	34·3	38·3	42·4	42·7	38·9	−0·9	+0·5	−0·4	−0·3	−0·2	+0·5	Means	45·2	33·8	38·8	42·6	43·0	38·8	−0·3	0·0	+0·1	0·0	+0·1	+0·3

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.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	47·2	38·3	41·6	42·9	45·2	38·9	+0·3	+0·2	+0·2	+0·1	−1·0	+0·5	1	47·4	37·2	41·0	42·9	46·1	38·0	+0·5	−0·9	−0·4	+0·1	−0·1	−0·4
2	46·2	30·3	42·9	44·7	45·0	37·6	−2·9	+1·3	+0·6	−0·2	−0·7	+0·8	2	49·2	28·7	41·8	45·9	46·9	36·8	+0·1	−0·3	−0·5	+1·0	+1·2	0·0
3	49·2	32·7	41·3	46·3	48·9	37·4	−1·7	+2·6	−2·0	−1·7	−1·6	+1·5	3	51·6	31·1	42·9	47·6	49·8	36·7	+0·7	+1·0	−0·4	−0·4	−0·7	+0·8
4	50·6	33·4	...	...	...	...	−2·7	+2·0	...	...	...	...	4	52·6	32·1	...	...	...	...	−0·7	+0·7	...	...	...	...
5	49·0	34·0	43·2	47·8	47·3	40·4	−2·2	+0·5	−0·4	−0·5	−0·3	+0·8	5	51·8	32·2	43·9	48·9	48·2	39·3	+0·6	−1·3	+0·3	+0·6	+0·6	−0·3
6	55·3	35·6	47·9	54·9	55·0	42·1	−1·9	+1·7	+0·3	−0·5	−1·6	+0·3	6	57·7	33·6	48·9	55·9	56·5	40·9	+0·5	−0·3	+1·3	+0·5	−0·1	−0·9
7	59·0	35·1	48·0	57·4	57·9	43·9	−2·0	+2·1	−0·4	−1·2	−0·8	+1·1	7	61·6	33·1	49·0	58·4	58·7	42·7	+0·6	+0·1	+0·6	−0·2	0·0	−0·1
8	61·9	35·1	50·0	60·1	61·0	46·0	−2·1	+2·0	+0·4	−1·4	−0·6	+1·4	8	65·0	33·1	50·6	61·3	63·9	45·1	+1·0	0·0	+1·0	−0·2	+2·3	+0·5
9	67·7	34·1	...	...	...	...	−1·3	+4·0	...	...	...	...	9	69·2	32·5	...	...	...	...	+0·2	+2·4	...	...	...	...
10	61·0	40·1	53·0	60·8	60·1	48·7	−2·0	+2·0	+1·1	0·0	−0·5	+2·0	10	63·8	38·9	52·9	61·9	61·8	50·1	+0·8	+0·8	+1·0	+1·1	+1·2	+3·4
11	71·1	42·9	...	...	...	...	−0·2	+3·8	...	...	...	...	11	71·6	42·0	...	...	...	...	+0·3	+2·9	...	...	...	...
12	55·0	42·1	...	...	...	...	+0·1	+0·4	...	...	...	...	12	55·2	41·1	...	...	...	...	+0·3	−0·6	...	...	...	...
13	55·8	43·7	50·5	54·1	51·8	50·9	−1·4	0·0	0·0	+0·2	−0·2	+0·1	13	56·9	43·1	50·9	54·5	51·9	50·9	−0·3	−0·6	+0·4	+0·6	−0·1	+0·1
14	60·0	46·8	49·9	53·6	57·7	50·1	−1·0	+0·5	+1·3	−0·4	−1·0	+0·5	14	60·3	45·9	49·9	53·8	57·2	49·9	−0·7	−0·4	+1·3	−0·2	−1·5	+0·3
15	62·8	38·7	52·8	58·7	61·4	49·9	−2·6	+3·5	−1·5	+0·1	−0·1	+2·3	15	64·6	37·9	54·1	58·7	61·5	49·2	−0·8	+2·7	−0·2	+0·1	0·0	+1·6
16	64·0	42·4	54·8	55·8	60·9	51·1	−1·0	+2·4	−0·5	−1·2	−0·2	+0·5	16	64·7	42·1	55·9	56·0	61·8	50·5	−0·3	+2·1	+0·6	−1·0	+0·7	−0·1
17	62·2	45·3	53·1	59·5	61·2	52·9	−1·9	+1·2	−0·4	+0·6	−0·1	+0·5	17	63·6	44·2	53·7	60·2	62·1	52·8	−0·5	+0·1	+0·2	+1·3	+0·8	+0·4
18	63·2	49·6	...	...	...	...	−2·3	−0·1	...	...	...	...	18	64·7	49·3	...	...	...	...	−0·8	−0·4	...	...	...	...
19	67·1	39·0	53·7	62·9	66·2	53·1	−1·6	+1·4	−0·9	−2·5	−0·4	−0·1	19	68·9	38·7	54·9	62·9	67·8	52·3	+0·2	+1·1	+0·3	−2·5	+1·2	−0·9
20	60·3	46·3	53·8	58·1	56·9	49·5	−1·4	−0·2	+0·1	−0·3	+0·2	0·0	20	59·9	46·1	54·7	57·1	57·4	49·1	−1·8	−0·4	+1·0	−1·3	+0·7	−0·4
21	57·5	37·9	52·4	57·3	55·9	44·6	−3·3	+3·5	−1·4	+0·3	−0·8	+1·0	21	60·4	37·1	53·6	59·9	57·4	43·7	−0·4	+2·7	−0·2	+2·9	+0·7	+0·1
22	62·8	42·0	53·0	59·2	59·7	50·1	−1·2	+1·9	−1·8	−1·9	−0·8	0·0	22	63·3	41·0	54·1	59·7	60·9	49·9	−0·7	+0·9	−0·7	−1·4	+0·4	−0·2
23	60·9	47·1	54·7	57·2	60·2	48·1	−2·1	0·0	+0·9	−1·0	−1·0	+0·9	23	61·9	46·2	55·5	58·0	61·2	47·5	−1·1	−0·9	+1·7	−0·2	0·0	+0·3
24	62·2	47·2	55·8	60·8	57·1	49·4	−1·8	+1·0	−0·2	−0·5	−0·5	+0·5	24	63·0	46·5	56·3	61·5	57·9	48·9	−1·0	+0·3	+0·3	+0·2	+0·3	0·0
25	59·0	43·0	...	...	...	...	−1·8	+0·7	...	...	...	...	25	59·8	41·9	...	...	...	...	−1·0	−0·4	...	...	...	...
26	66·8	43·9	57·9	63·9	65·4	50·9	−1·3	+2·8	−0·6	+0·5	−0·3	+0·9	26	68·2	42·8	58·8	64·1	65·9	50·1	+0·1	+1·7	+0·3	+0·7	+0·2	+0·1
27	57·1	46·2	54·4	49·5	52·7	51·8	−1·9	+1·2	0·0	−0·2	−0·9	+1·7	27	58·4	45·2	56·5	49·9	53·1	51·6	−0·6	+0·2	+2·1	+0·2	−0·5	+1·5
28	61·1	42·2	52·0	58·5	59·9	49·7	−1·1	−0·1	−0·9	+0·9	+0·3	+1·0	28	61·9	41·1	52·1	57·7	60·9	49·1	−0·3	−1·2	−0·8	+0·1	+1·3	+0·4
29	57·0	42·0	50·4	56·4	51·4	42·8	−2·0	−0·1	−0·1	−1·2	−1·1	+0·2	29	57·6	41·0	51·2	57·4	52·4	42·4	−1·4	−1·1	+0·7	−0·2	−0·1	−0·2
30	52·0	39·2	43·7	47·0	51·5	42·2	−1·1	+0·3	+0·3	−0·1	−1·1	+0·6	30	52·8	37·2	43·9	46·9	51·9	41·9	−0·3	−1·7	+0·5	−0·2	−0·7	+0·3
Means	58·8	40·5	50·5	55·3	56·3	46·8	−1·6	+1·4	−0·2	−0·5	−0·6	+0·8	Means	60·3	39·4	51·1	55·9	57·2	46·2	−0·2	+0·3	+0·4	+0·1	+0·3	+0·3

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.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	49·4	35·3	41·8	46·0	48·7	39·4	−0·7	+0·2	+0·4	−0·1	−0·6	+0·6	1	50·4	34·0	40·8	45·0	47·9	38·3	+0·3	−1·1	−0·6	−1·1	−1·4	−0·5
2	53·9	34·9	46·0	49·9	51·4	44·6	−0·4	+0·4	−0·2	−0·7	+1·3	+1·2	2	54·2	33·2	45·8	49·0	50·8	43·7	−0·1	−1·3	−0·4	−1·6	+0·7	+0·3
3	57·6	37·9	52·9	53·9	55·9	45·1	−2·9	+2·7	−1·0	−0·2	−0·5	+0·8	3	59·6	36·1	54·8	55·9	56·0	43·4	−0·9	+0·9	+0·9	+1·8	−0·4	−0·9
4	60·7	38·7	57·4	60·7	57·7	48·5	−3·3	+3·5	−1·6	−2·2	−0·9	+0·3	4	62·8	37·1	57·8	60·9	59·6	47·7	−1·2	+1·9	−1·2	−2·0	+1·0	−0·5
5	59·5	43·1	55·1	59·5	58·8	51·7	−1·5	+1·2	0·0	+0·7	−0·1	+0·5	5	61·4	41·1	56·9	60·7	60·2	50·9	+0·4	−0·8	+1·8	+1·9	+1·3	−0·3
6	62·5	49·1	58·8	61·9	59·7	50·1	−1·5	+0·7	−0·5	−0·2	−0·4	+0·5	6	64·8	47·3	59·9	63·8	61·1	49·4	+0·8	−1·1	+0·6	+1·7	+1·0	−0·2
7	60·2	45·3	55·3	58·8	58·7	49·4	−0·9	+0·4	+0·2	−0·1	−0·4	+0·6	7	62·2	44·1	56·9	60·1	59·8	48·4	+1·1	−0·8	+1·8	+1·2	+0·7	−0·4
8	59·7	44·1	55·6	59·4	58·7	48·4	−2·5	+0·4	−0·5	−0·8	+0·1	+1·0	8	62·9	43·1	56·9	60·5	60·1	47·2	+0·7	−0·6	+0·8	+0·3	+1·5	−0·2
9	59·8	39·2	56·7	58·1	54·6	46·9	+0·5	+2·1	−0·1	+1·3	+1·7	+0·5	9	58·6	37·7	54·7	56·3	53·2	46·4	−0·7	+0·6	−2·1	−0·5	+0·3	0·0
10	57·7	44·9	51·6	56·6	54·9	47·7	−0·4	+1·0	+1·6	+0·8	−0·1	+1·7	10	57·6	43·2	50·5	54·2	53·4	46·9	−0·5	−0·7	+0·5	−1·6	−1·6	+0·9
11	70·0	36·6	53·9	64·9	68·8	53·5	−1·0	+2·8	−0·5	+0·5	+0·6	+0·9	11	71·8	35·1	55·8	64·9	70·8	53·0	+0·8	+1·3	+1·4	+0·5	+2·6	+0·4
12	72·0	45·6	63·8	68·9	69·9	47·9	−1·9	+0·8	−1·0	−0·5	0·0	+1·2	12	72·6	44·6	65·1	68·9	70·6	46·8	−1·3	−0·2	+0·3	−0·5	+0·7	+0·1
13	53·9	38·5	50·1	51·0	51·7	46·3	−0·5	+1·4	+0·5	+0·5	−0·1	+0·8	13	54·5	37·1	49·2	50·9	52·1	45·9	+0·1	0·0	−0·4	+0·4	+0·3	+0·4
14	49·8	36·2	41·3	44·1	47·9	43·3	−1·4	−0·3	−1·1	−0·8	0·0	+0·4	14	51·8	36·1	43·9	45·0	47·9	42·9	+0·6	−0·4	+1·5	+0·1	0·0	0·0
15	52·0	37·8	45·2	48·2	49·3	41·1	−1·0	+1·6	0·0	−0·2	−0·2	+0·5	15	53·5	36·3	46·2	49·0	51·2	39·7	+0·5	+0·1	+1·0	+0·6	+1·7	−0·9
16	54·0	35·7	50·1	51·9	53·3	46·9	−2·0	+2·6	−1·7	−0·6	−1·8	+0·8	16	56·6	33·2	52·6	52·9	54·9	46·3	+0·6	+0·1	+0·8	+0·4	−0·2	+0·2
17	52·9	43·1	46·1	48·0	49·9	46·7	−0·6	0·0	0·0	+2·5	+0·1	+1·1	17	53·6	42·1	46·0	48·3	50·3	45·9	+0·1	−1·0	−0·1	+2·8	+0·5	+0·3
18	62·0	38·4	54·7	57·9	55·3	49·4	−0·5	+3·2	−0·5	+0·8	−0·9	+2·0	18	62·5	38·0	55·9	59·0	56·5	48·4	0·0	+2·8	+0·7	+1·9	+0·3	+1·0
19	67·9	41·1	57·9	63·2	67·8	53·5	−1·3	+2·2	−0·2	−1·0	0·0	+2·5	19	70·6	40·1	58·9	65·8	68·9	53·2	+1·4	+1·2	+0·8	+1·6	+1·1	+2·2
20	74·0	40·7	65·9	72·0	69·9	56·1	−0·5	+4·1	+0·2	−0·4	−0·7	+1·4	20	75·5	39·1	66·3	71·9	71·1	54·9	+1·0	+2·5	+0·6	−0·5	+0·5	+0·2
21	80·5	47·2	69·8	77·9	75·9	64·9	−1·3	+2·0	+0·9	+0·4	−1·7	+2·3	21	82·6	46·1	70·7	80·0	77·7	66·0	+0·8	+0·9	+1·8	+2·5	+0·1	+3·4
22	82·1	54·1	68·9	78·9	81·7	65·9	−1·9	+3·9	−0·1	−1·0	+1·1	+1·5	22	84·7	53·3	68·8	78·2	81·9	65·1	+0·7	+3·1	−0·2	−1·7	+1·3	+0·7
23	79·1	55·1	71·0	76·9	72·6	62·1	−2·1	+2·2	−1·6	−1·7	−1·4	+0·5	23	81·6	54·2	73·0	78·8	73·7	61·6	+0·4	+1·3	+0·4	+0·2	−0·3	0·0
24	73·7	49·0	65·7	71·4	73·5	57·9	−0·9	+2·8	+1·1	−0·1	+0·4	+1·1	24	75·6	49·0	64·9	70·3	73·9	57·1	+1·0	+2·8	+0·3	−1·2	+0·8	+0·3
25	59·0	51·2	53·3	55·9	57·7	53·2	−2·8	−0·2	−0·3	0·0	−1·6	+0·2	25	60·7	51·2	53·9	56·0	58·9	52·6	−1·1	−0·2	+0·3	+0·1	−0·4	−0·4
26	59·2	46·3	52·9	53·1	58·0	50·9	−2·2	+0·2	+0·2	−0·5	−0·6	+0·3	26	60·6	45·5	53·4	53·8	58·9	51·4	−0·8	−0·6	+0·7	+0·2	+0·3	+0·8
27	60·3	49·1	52·3	58·9	57·5	50·9	−1·7	0·0	−0·3	−0·7	−1·1	+0·1	27	61·4	48·8	52·6	59·9	58·8	50·1	−0·6	−0·3	0·0	+0·3	+0·2	−0·7
28	68·0	46·3	58·7	63·9	66·7	54·9	−2·9	0·0	−0·1	−1·7	−1·3	+0·4	28	70·5	45·5	59·6	64·9	69·8	54·6	−0·4	−0·8	+0·8	−0·7	+1·8	+0·1
29	66·3	48·6	61·0	61·9	64·9	58·0	−1·7	−0·2	−1·0	−0·1	+0·9	+1·2	29	67·5	48·2	61·8	62·9	65·0	57·9	−0·5	−0·6	−0·2	+0·9	+1·0	+1·1
30	72·2	46·3	60·0	67·7	72·0	61·2	−1·5	+0·2	−2·0	−1·2	−0·5	+0·7	30	75·8	45·0	62·2	68·7	73·8	60·9	+2·1	−1·1	+0·2	−0·2	+1·3	+0·4
31	74·9	51·2	65·1	72·9	73·2	62·1	−1·1	+2·1	−1·1	−0·1	+0·8	+3·3	31	77·6	50·2	67·7	73·8	74·9	62·1	+1·6	+1·1	+1·5	+0·c	÷2·5	+3·3
Means	63·4	43·6	56·1	60·5	61·2	51·6	−1·4	+1·4	−0·3	−0·2	−0·3	+1·0	Means	65·0	42·4	56·9	61·0	62·1	50·9	+0·2	+0·3	+0·5	+0·3	+0·6	+0·4

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.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	65·8	52·5	64·9	63·1	61·3	53·9	+0·3	+2·8	+0·1	−0·5	+0·1	+0·5	1	66·4	52·2	65·2	62·8	61·4	52·7	+0·9	+2·5	+0·4	−0·8	+0·2	−0·7
2	54·2	48·9	49·9	50·1	51·3	49·2	+0·3	−0·2	+0·2	+0·3	−0·6	0·0	2	53·5	48·2	49·3	49·2	50·7	48·9	−0·4	−0·9	−0·4	−0·6	−1·2	−0·3
3	52·8	46·9	51·1	52·3	51·2	48·4	−1·2	0·0	−0·3	−0·8	−0·2	+0·3	3	53·9	46·4	51·7	53·3	51·4	48·0	−0·1	−0·5	+0·3	+0·2	0·0	−0·1
4	50·6	45·1	45·9	47·9	50·1	49·9	−0·2	−0·1	−0·1	−0·2	−0·2	+0·2	4	50·5	44·1	45·1	47·4	49·6	49·4	−0·3	−1·1	−0·9	−0·7	−0·7	−0·3
5	56·4	47·3	54·6	54·7	55·2	50·1	−0·7	+0·1	0·0	+0·2	+0·1	+0·5	5	57·6	47·2	55·9	54·8	55·9	49·9	+0·5	0·0	+1·3	+0·3	+0·8	+0·3
6	50·5	43·1	45·4	48·4	50·0	48·1	−0·5	−0·5	−0·4	−0·2	−0·1	+0·5	6	51·2	43·1	46·4	48·9	50·7	47·8	+0·2	−0·5	+0·6	+0·3	+0·6	+0·2
7	59·8	46·9	52·6	57·4	58·0	50·0	−2·2	+0·1	−1·2	−0·5	−0·8	+3·4	7	62·8	46·5	54·3	60·1	60·1	49·1	+0·8	−0·3	+0·5	+2·2	+1·3	+2·5
8	67·0	43·0	56·7	63·1	65·9	56·0	−1·0	+2·5	−1·1	+0·6	+0·3	+0·7	8	68·6	41·0	58·3	63·9	66·1	56·1	+0·6	+0·5	+0·5	+1·4	+0·5	+0·8
9	62·9	51·1	55·9	61·9	62·1	54·0	−1·4	+1·0	−0·7	−0·8	−0·2	+1·2	9	64·4	49·5	56·0	61·8	62·9	53·7	+0·1	−0·6	−0·6	−0·9	+0·6	+0·9
10	54·4	45·9	51·9	51·0	49·8	46·2	+0·3	+2·6	+0·2	−0·6	+0·2	+2·8	10	55·7	43·6	51·7	51·9	49·7	44·7	+0·8	+0·3	0·0	+0·3	+0·1	+1·3
11	54·9	41·3	48·7	52·4	50·0	46·3	−1·7	+3·0	0·0	−0·4	−1·0	+0·9	11	55·9	39·5	49·9	53·0	50·9	44·7	−0·7	+1·2	+1·2	+0·2	−0·1	−0·7
12	52·9	42·0	49·9	51·1	49·9	50·2	−1·1	+0·4	−0·7	−0·3	−0·7	+0·4	12	53·6	40·1	50·7	50·4	48·9	49·9	−0·4	−1·5	+0·1	−1·0	−1·7	+0·1
13	63·1	46·8	51·9	58·3	62·9	56·1	−2·4	−0·1	+0·3	−1·5	+0·1	+2·4	13	64·6	46·3	52·0	58·9	63·9	57·2	−0·9	−0·6	+0·4	−0·9	+1·1	+3·5
14	65·5	47·2	58·3	65·3	64·0	54·9	−1·5	+2·1	−1·1	0·0	−1·2	+0·5	14	67·0	47·0	61·6	65·7	65·6	54·5	0·0	+1·9	+2·2	+0·4	+0·4	+0·1
15	58·0	47·9	50·9	54·9	55·3	55·0	−1·3	+2·0	−0·4	−1·1	−0·1	+1·4	15	59·6	46·2	51·0	56·0	56·3	54·9	+0·3	+0·3	−0·3	0·0	+0·9	+1·3
16	65·0	49·6	54·8	60·8	64·3	56·6	−1·0	+0·3	+0·2	+0·5	+1·5	+0·5	16	66·1	49·4	56·0	60·9	65·0	55·8	+0·1	+0·1	+1·4	+0·6	+2·2	−0·3
17	68·9	49·3	51·9	60·0	68·9	60·0	−1·3	+0·1	+0·3	−0·4	+0·2	+0·5	17	70·8	49·3	52·0	61·4	69·9	59·8	+0·6	+0·1	+0·4	+1·0	+1·2	+0·3
18	67·1	50·3	56·2	61·0	66·0	60·0	−1·8	+2·1	−0·3	+0·4	0·0	+3·1	18	68·9	49·2	56·8	62·3	66·3	59·9	0·0	+1·0	+0·3	+1·7	+0·3	+3·0
19	72·0	53·0	61·1	67·4	68·8	59·6	−2·3	+2·9	−0·5	−0·2	−0·8	+0·7	19	74·3	52·3	62·6	68·9	70·5	58·9	0·0	+2·2	+1·0	+1·3	+0·9	0·0
20	66·3	56·3	59·9	63·7	66·0	57·1	−2·9	+0·1	+1·0	−0·6	−0·4	+0·6	20	68·6	56·3	59·9	65·1	67·0	56·8	−0·6	+0·1	+1·0	+0·8	+0·6	+0·3
21	70·5	54·1	61·9	67·9	68·2	59·9	−2·5	0·0	−1·1	−0·6	−0·3	+0·8	21	73·8	53·8	64·9	71·1	70·1	59·7	+0·8	−0·3	+1·9	+2·6	+1·6	+0·6
22	64·0	52·4	55·9	61·9	61·7	52·9	−1·8	+0·3	−0·5	+0·2	+1·6	+0·4	22	65·8	51·6	56·4	62·4	62·9	52·1	0·0	−0·5	0·0	+0·7	+2·8	−0·4
23	62·9	49·1	58·7	61·4	59·9	52·8	−2·7	+0·5	+1·3	+0·9	−1·0	+1·5	23	64·6	47·7	60·8	62·0	61·9	51·9	−1·0	−0·9	+3·4	+1·5	+1·0	+0·6
24	61·1	50·1	54·7	52·8	55·4	51·7	−4·0	0·0	−1·1	−0·7	−0·2	0·0	24	65·6	50·1	56·8	53·1	55·9	51·4	+0·5	0·0	+1·0	−0·4	+0·3	−0·3
25	54·5	51·1	51·9	53·1	52·9	51·9	−1·4	−0·1	−0·1	−0·5	0·0	+0·2	25	55·1	50·4	51·9	52·9	52·8	51·1	−0·8	−0·8	−0·1	−0·7	−0·1	−0·6
26	61·2	48·6	50·2	56·7	59·1	51·4	−1·8	+0·3	−0·1	+0·5	−1·5	+0·5	26	62·6	48·2	50·1	57·1	61·4	50·4	−0·4	−0·1	−0·2	+0·9	+0·8	−0·5
27	58·4	49·1	52·2	52·7	55·7	52·7	−2·6	0·0	−1·4	−0·5	−1·6	+0·9	27	60·9	48·8	53·9	53·1	56·9	52·1	−0·1	−0·3	+0·3	−0·1	−0·4	+0·3
28	64·6	46·5	59·0	62·3	63·7	55·2	−2·5	+1·9	−0·8	−0·4	−1·3	+1·4	28	67·6	45·2	61·1	65·5	65·9	54·8	+0·5	+0·6	+1·3	+2·8	+0·9	+1·0
29	63·0	51·3	55·0	57·0	59·6	55·9	−2·1	+1·0	−0·7	+0·4	−0·1	+0·3	29	63·8	50·9	55·9	58·8	61·8	55·0	−1·3	+0·6	+0·2	+2·2	+2·1	−0·6
30	60·0	50·1	54·3	57·2	57·3	52·7	−1·0	+1·0	−0·1	+0·4	−0·3	+0·9	30	61·0	49·2	54·7	57·7	57·7	51·9	0·0	+0·1	+0·3	+0·9	+0·1	+0·1
Means	60·9	48·6	54·2	57·6	58·8	53·3	−1·5	+0·9	−0·3	−0·2	−0·3	+0·9	Means	62·5	47·8	55·1	58·3	59·7	52·8	0·0	+0·1	+0·6	+0·5	+0·6	+0·4

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.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	63·9	45·9	53·0	57·9	59·9	55·0	−1·1	+0·3	−0·8	+0·8	−0·7	+1·2	1	65·2	44·4	53·9	58·9	60·1	54·1	+0·2	−1·2	+0·1	+1·8	−0·5	+0·3
2	69·1	46·4	56·0	65·8	68·2	59·7	−3·8	+0·2	−1·1	+0·2	+0·3	+3·1	2	72·4	46·2	56·7	67·7	70·3	58·9	−0·5	0·0	−0·4	+2·1	+2·4	+2·3
3	73·1	51·4	66·0	70·6	72·8	61·2	−2·5	+1·1	−0·6	−0·9	−1·6	+0·4	3	75·7	50·7	67·9	73·0	73·9	60·7	+0·1	+0·4	+1·3	+1·5	−0·5	−0·1
4	70·0	58·6	62·7	69·4	68·1	60·1	−1·0	0·0	−0·7	+0·1	+1·0	+1·2	4	70·8	58·3	64·5	69·4	69·1	58·9	−0·2	−0·3	+1·1	+0·1	+2·0	0·0
5	69·2	48·9	62·7	64·9	66·3	59·1	−3·5	+2·8	−0·9	−0·7	−1·2	+0·4	5	73·2	47·5	67·1	67·0	67·9	58·7	+0·5	+1·4	+3·5	+1·4	+0·4	0·0
6	63·7	53·3	61·2	59·9	56·8	53·9	−2·2	0·0	−1·2	−1·7	+0·2	+0·4	6	65·9	53·1	61·9	61·3	56·1	53·1	0·0	−0·2	−0·5	−0·3	−0·5	−0·4
7	64·3	51·6	54·3	62·9	57·6	56·8	−0·9	−0·3	−0·5	−0·5	+0·7	+0·3	7	64·8	50·6	54·8	63·3	54·6	56·1	−0·4	−1·3	0·0	−0·1	−2·3	−0·4
8	66·5	52·5	60·7	63·0	63·9	59·4	−1·3	+0·4	+1·0	+0·1	+0·3	+0·2	8	67·6	51·4	61·4	63·4	63·9	58·9	−0·2	−0·7	+1·7	+0·5	+0·3	−0·3
9	71·8	49·9	61·6	66·8	70·9	61·1	−2·2	+0·3	−1·0	−2·1	−1·6	+1·3	9	74·6	49·0	62·8	67·9	73·9	60·9	+0·6	−0·6	+0·2	−1·0	+1·4	+1·1
10	61·3	54·0	57·1	57·1	58·0	54·9	−1·4	+0·4	−0·4	−0·3	+0·4	+0·6	10	62·4	52·4	57·4	57·1	57·9	54·0	−0·3	−1·2	−0·1	−0·3	+0·3	−0·3
11	60·1	49·9	58·8	55·0	54·4	52·8	−0·9	+0·1	−0·4	−0·4	+0·6	+1·2	11	61·8	49·2	60·3	55·6	54·9	52·0	+0·8	−0·6	+1·1	+0·2	+1·1	+0·4
12	62·0	50·9	52·1	55·9	59·5	54·9	−1·0	0·0	0·0	+0·3	−0·6	+1·8	12	63·0	50·7	51·9	56·0	60·0	54·9	0·0	−0·2	−0·2	+0·4	−0·1	+1·8
13	69·0	51·6	60·7	64·6	67·9	60·9	−2·6	+2·0	−1·6	−0·7	−1·3	+0·2	13	71·8	50·7	62·6	67·0	69·6	60·2	+0·2	+1·1	+0·3	+1·7	+0·4	−0·5
14	71·5	57·9	61·6	66·9	69·4	64·0	−1·5	−0·2	−0·3	−0·3	−1·0	+1·1	14	73·8	57·4	61·9	67·7	70·4	63·3	+0·8	−0·7	0·0	+0·5	0·0	+0·4
15	71·1	54·9	63·7	67·9	69·5	61·1	−2·2	+0·3	−1·0	−0·5	−0·2	+0·5	15	74·4	54·0	64·9	69·3	72·9	60·3	+1·1	−0·6	+0·2	+0·9	+3·2	−0·3
16	64·6	53·4	56·4	59·4	64·3	61·8	−1·9	−0·6	−0·4	−0·7	−1·3	0·0	16	65·6	53·2	56·4	59·7	65·3	61·7	−0·9	−0·8	−0·4	−0·4	−0·3	−0·1
17	74·4	60·5	63·9	67·4	72·6	65·2	−2·1	−0·4	−0·7	−0·5	−1·4	+0·2	17	77·6	60·6	64·3	68·7	73·9	65·0	+1·1	−0·3	−0·3	+0·8	−0·1	0·0
18	76·1	58·9	63·8	70·0	74·1	67·6	−1·6	0·0	−0·2	−2·0	+0·1	+0·2	18	77·7	58·5	64·7	71·5	75·9	67·2	0·0	−0·4	+0·7	−0·5	+1·9	−0·2
19	73·0	58·0	65·1	69·2	70·9	60·0	−1·9	+0·7	+0·5	+0·4	+0·3	+1·2	19	75·4	58·3	65·9	70·1	71·7	59·7	+0·5	+1·0	+1·3	+1·3	+1·1	+0·9
20	75·0	49·6	62·9	70·6	73·9	63·2	−1·5	+0·8	+0·1	+0·6	−0·7	+1·2	20	77·6	48·2	64·3	70·9	75·9	62·3	+1·1	−0·6	+1·5	+0·9	+1·3	+0·3
21	68·0	56·4	61·2	64·7	65·9	62·0	−2·3	−0·1	−0·9	−0·8	−0·8	+0·6	21	70·2	56·1	61·9	65·9	66·7	61·8	−0·1	−0·4	−0·2	+0·4	0·0	+0·4
22	69·0	55·6	63·2	66·0	67·1	59·9	−2·4	+0·2	−0·5	−0·6	−0·2	+0·3	22	70·7	55·1	64·3	67·4	68·2	59·4	−0·7	−0·3	+0·6	+0·8	+0·9	−0·2
23	69·6	54·0	62·9	67·7	65·6	57·6	−2·4	+0·1	−1·4	+0·5	−0·7	0·0	23	72·6	53·2	63·1	67·9	66·7	56·9	+0·6	−0·7	−1·2	+0·7	+0·4	−0·7
24	64·5	51·2	59·1	57·4	61·4	57·9	−1·5	0·0	−0·5	+0·1	−0·8	+0·3	24	66·1	50·4	59·9	57·1	61·9	57·4	+0·1	−0·8	+0·3	−0·2	−0·3	−0·2
25	63·0	52·5	61·9	62·0	58·8	56·6	−1·8	+0·4	−0·8	−1·4	−0·3	+0·6	25	64·6	50·4	63·1	62·8	58·8	55·9	−0·2	−1·7	+0·4	−0·6	−0·3	−0·1
26	67·0	51·3	61·0	59·1	63·9	55·9	−2·0	0·0	−0·5	−1·3	−0·3	+0·5	26	68·4	50·2	61·1	59·1	65·0	55·1	−0·6	−1·1	−0·4	−1·3	+0·8	−0·3
27	63·0	49·2	60·0	62·1	58·4	57·1	−2·0	+1·9	−0·5	−0·1	−0·1	−0·4	27	64·8	48·2	62·1	63·9	58·9	56·9	−0·2	+0·9	+1·6	+1·7	+0·4	−0·6
28	69·2	55·1	58·1	64·7	68·7	59·7	−1·1	−0·6	−1·5	−0·1	−0·9	+0·1	28	70·6	55·8	59·9	64·5	69·9	59·7	+0·3	+0·1	+0·3	−0·3	+0·3	+0·1
29	68·8	54·2	62·3	63·1	67·9	60·1	−2·4	+0·1	+1·1	+0·3	−1·8	+0·1	29	70·1	54·2	63·6	63·9	69·5	59·5	−1·1	+0·1	+2·4	+1·1	−0·2	−0·5
30	67·2	57·2	58·9	62·7	60·8	61·0	−3·8	−0·6	+0·5	−0·6	−0·2	+1·0	30	68·5	56·3	58·3	63·2	59·8	60·1	−2·5	−0·5	−0·1	−0·1	−1·2	+0·1
31	74·0	56·9	67·9	67·4	73·8	62·9	−2·0	−0·1	−0·9	−0·6	+0·4	+0·4	31	75·5	56·3	68·9	67·8	74·9	62·1	−0·5	−0·7	+0·1	−0·2	+1·5	−0·4
Means	68·2	53·3	60·7	63·9	65·5	59·5	−2·0	+0·3	−0·5	−0·4	−0·4	+0·7	Means	70·1	52·6	61·7	64·8	66·4	58·9	0·0	−0·4	+0·5	+0·4	+0·4	+0·1

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.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	67·0	57·3	62·9	65·3	61·9	59·4	−3·5	−0·2	−0·7	−0·7	+0·3	+1·0	1	69·8	57·5	65·7	67·1	61·9	58·4	−0·7	0·0	+2·1	+1·1	+0·3	0·0
2	60·3	53·6	57·6	57·9	56·7	54·1	−2·4	+0·3	−0·6	+0·1	+2·0	+0·6	2	61·3	53·2	57·9	57·9	55·7	53·5	−1·4	−0·1	−0·3	+0·1	+1·0	0·0
3	63·1	47·3	55·0	62·1	61·0	54·5	−2·2	+0·4	−1·0	+1·3	−0·9	+2·8	3	64·1	46·2	55·9	62·9	61·8	54·6	−1·2	−0·7	−0·1	+2·1	−0·1	+2·9
4	73·0	50·5	61·9	67·1	72·4	61·0	−2·3	+2·2	−1·0	−0·5	−1·3	+1·4	4	76·2	49·2	64·8	70·8	74·9	60·2	+0·9	+0·9	+1·9	+3·2	+1·2	+0·6
5	75·0	52·1	65·8	69·0	74·9	61·5	−2·1	+2·2	−1·2	−1·6	−1·8	+3·9	5	77·8	51·2	69·4	69·8	77·1	60·8	+0·7	+1·3	+2·4	−0·8	+0·4	+3·2
6	76·6	52·6	67·9	74·8	76·6	61·5	−1·2	+2·5	−1·3	0·0	+0·1	+1·7	6	78·7	51·7	69·1	75·1	78·1	60·4	+0·9	+1·6	−0·1	+0·3	+1·6	+0·6
7	79·0	54·1	70·5	76·6	78·5	63·4	−0·9	+2·5	−0·1	+0·4	+0·6	+2·8	7	81·7	53·1	70·8	77·0	79·3	62·8	+1·8	+1·5	+0·2	+0·8	+1·4	+2·2
8	76·0	55·1	68·9	75·0	76·0	63·4	−1·2	+3·1	−0·7	−1·6	−0·6	+0·7	8	78·7	53·2	69·2	76·0	76·9	62·6	+1·5	+1·2	−0·4	−0·6	+0·3	−0·1
9	79·0	53·3	58·9	74·7	77·2	63·1	−1·2	+0·7	−2·8	−0·1	+0·1	+4·0	9	81·0	52·7	59·1	74·9	77·9	62·4	+0·8	+0·1	−2·6	+0·1	+0·8	+3·3
10	78·9	55·5	68·9	76·1	78·0	59·6	−0·8	+3·4	+0·3	+0·3	−0·6	+0·9	10	80·2	55·2	68·0	74·9	79·2	58·8	+0·5	+3·1	−0·6	−0·9	+0·6	+0·1
11	80·1	54·5	62·8	74·8	78·7	69·0	−0·8	+2·3	−1·5	−0·8	+1·1	+4·3	11	81·6	53·2	65·5	76·5	78·9	70·5	+0·7	+1·0	+1·2	+0·9	+1·3	+5·8
12	85·4	57·1	71·2	81·7	84·9	71·4	−0·8	+2·8	−0·5	+1·0	−0·2	+2·0	12	87·7	56·8	72·9	82·7	86·5	71·2	+1·5	+2·5	+1·2	+2·0	+1·4	+1·8
13	79·0	59·2	71·1	78·9	76·6	68·1	−1·0	0·0	−0·5	+2·2	−0·3	+0·5	13	80·5	58·5	72·2	79·9	77·1	67·7	+0·5	−0·7	+0·6	+3·2	+0·2	+0·1
14	79·2	58·1	68·3	74·9	78·3	69·6	−1·9	+1·6	−0·6	−0·1	+0·8	+4·2	14	81·4	57·4	69·7	74·9	79·9	70·2	+0·3	+0·9	+0·8	−0·1	+2·4	+4·8
15	85·1	60·1	73·2	78·2	85·1	68·0	−0·6	+2·4	−2·6	−0·5	−0·2	+4·7	15	87·7	60·1	75·9	81·1	86·8	67·9	+2·0	+2·4	+0·1	+2·4	+1·5	+4·6
16	76·6	62·1	71·0	74·3	67·8	64·6	−2·4	+3·0	−0·7	−0·2	+0·6	+0·3	16	79·1	61·3	71·9	75·3	68·3	63·9	+0·1	+2·2	+0·2	+0·8	+1·1	−0·4
17	69·1	53·4	63·0	67·7	67·4	54·3	−2·6	+0·8	−1·6	−1·0	−0·2	+0·3	17	72·7	52·3	67·8	70·7	69·2	54·0	+1·0	−0·3	+3·2	+2·0	+1·6	0·0
18	68·9	54·1	63·2	63·6	67·9	59·7	−1·4	+0·1	−1·5	−1·7	−0·5	+0·8	18	70·4	53·9	65·3	65·3	68·4	58·9	+0·1	−0·1	+0·6	0·0	0·0	0·0
19	72·0	56·1	64·4	69·2	69·9	61·0	−2·0	0·0	−0·3	−1·3	−0·5	+0·7	19	73·7	55·2	65·6	70·5	70·9	60·0	−0·3	−0·9	+0·9	0·0	+0·5	−0·3
20	64·9	57·2	63·4	62·5	61·7	59·8	−1·2	+0·1	−0·2	−0·1	−0·6	+0·1	20	65·7	56·4	63·9	62·5	61·8	59·0	−0·4	−0·7	+0·3	−0·1	−0·5	−0·7
21	66·0	54·1	57·7	64·4	62·8	56·3	−2·2	0·0	−1·9	+0·1	−4·1	+1·5	21	67·5	53·1	59·6	64·4	64·1	55·5	−0·7	−1·0	0·0	+0·1	−2·8	+0·7
22	64·9	46·9	57·2	61·0	62·6	52·1	−1·2	+0·2	−1·3	−1·1	+1·9	+3·4	22	65·8	45·9	57·8	62·0	62·9	51·0	−0·3	−0·8	−0·7	−0·1	+2·2	+2·3
23	65·7	48·2	62·3	63·0	60·0	61·6	−1·4	+3·0	−0·4	−0·4	−0·3	−0·1	23	67·1	47·2	63·4	64·7	60·9	61·1	0·0	+2·0	+0·7	+1·3	+0·6	−0·6
24	69·5	57·4	63·4	67·2	62·4	57·9	−2·0	0·0	−0·8	−1·3	−0·2	+0·3	24	70·7	57·3	64·2	69·0	62·4	57·8	−0·8	−0·1	0·0	+0·5	−0·2	+0·2
25	66·0	55·6	59·1	60·1	64·1	59·9	−3·2	0·0	−0·8	−0·6	−1·3	+0·2	25	68·1	55·2	60·1	60·3	65·1	59·2	−1·1	−0·4	+0·2	−0·4	−0·3	−0·5
26	60·8	53·4	55·3	57·0	59·8	56·5	−0·8	+0·3	−0·2	+0·1	+0·4	+1·7	26	61·6	52·7	55·1	57·2	59·9	56·0	0·0	−0·4	−0·4	+0·3	+0·5	+1·2
27	65·8	49·8	58·5	63·9	64·7	58·7	−1·3	+2·3	−0·9	+0·3	−0·3	+0·3	27	67·6	49·1	60·9	65·7	65·7	57·9	+0·5	+1·6	+1·5	+2·1	+0·7	−0·5
28	70·9	49·3	57·7	66·3	70·9	57·9	−1·2	+1·3	−1·1	−0·4	+0·4	+2·8	28	73·1	48·2	59·6	67·5	71·9	57·2	+1·0	+0·2	+0·8	+0·8	+1·4	+2·1
29	70·0	50·6	62·6	66·4	66·4	58·4	−1·7	+1·6	+1·2	−1·0	−2·2	+0·6	29	71·4	49·5	64·4	67·4	68·1	57·9	−0·3	+0·5	+3·0	0·0	−0·5	+0·1
30	64·0	53·3	57·3	61·1	61·7	54·0	−0·3	+0·2	+0·6	+2·0	+0·3	+0·8	30	64·4	52·3	58·1	61·1	61·9	53·0	+0·1	−0·8	+1·4	+2·0	+0·5	−0·2
31	59·9	49·2	54·8	56·0	57·9	49·9	−0·1	+2·5	+0·4	−0·2	+0·6	+2·9	31	59·9	48·2	55·0	56·1	57·9	49·9	−0·1	+1·5	+0·6	−0·1	+0·6	+2·9
Means	71·3	53·9	63·1	68·1	69·2	60·3	−1·5	+1·3	−0·8	−0·2	−0·2	+1·7	Means	73·1	53·1	64·5	69·1	70·0	59·8	+0·2	+0·6	+0·6	+0·7	+0·6	+1·2

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.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	57·9	43·0	53·9	56·9	51·4	49·8	−1·1	0·0	−0·5	−0·1	−0·6	+0·8	1	58·8	41·3	54·7	58·0	51·1	48·9	−0·2	−1·7	+0·3	+1·0	−0·9	−0·1
2	63·0	39·6	48·3	60·9	61·1	50·0	−1·8	+2·5	−1·3	−0·6	+0·5	+3·3	2	64·4	38·3	49·9	59·7	62·8	49·9	−0·4	+1·2	+0·3	−1·8	+2·2	+3·2
3	68·0	45·1	57·0	66·8	64·0	57·1	−1·9	+1·0	−1·6	+1·2	−1·0	+0·4	3	69·6	43·5	58·3	66·8	65·8	56·7	−0·3	−0·6	−0·3	+1·2	+0·8	0·0
4	60·2	54·2	58·0	58·9	59·5	57·2	−1·8	+0·1	−0·4	−0·4	−0·8	−0·2	4	61·0	53·3	58·1	59·0	59·9	56·9	−1·0	−0·8	−0·3	−0·3	−0·4	−0·5
5	63·7	50·0	56·8	61·5	62·3	52·9	−0·6	−0·1	+1·1	+0·6	−1·3	+3·8	5	64·5	48·5	57·8	61·8	62·1	52·1	+0·2	−1·6	+2·1	+0·9	−1·5	+3·0
6	70·0	50·4	61·1	62·2	68·2	55·2	−1·0	+2·5	−0·5	−0·5	−0·9	+0·7	6	70·6	49·7	61·5	62·6	68·8	54·8	−0·4	+1·8	−0·1	−0·1	−0·3	+0·3
7	62·2	49·9	56·8	58·6	57·9	52·6	−1·0	0·0	−1·6	−0·3	−1·1	0·0	7	62·3	49·2	57·0	59·4	58·8	51·8	−0·9	−0·7	−1·4	+0·5	−0·2	−0·8
8	54·6	42·2	52·8	50·4	53·9	50·9	−1·4	+1·6	+0·2	+0·7	+0·3	+1·0	8	56·3	40·2	52·1	50·5	53·9	50·3	+0·3	−0·4	−0·5	+0·8	+0·3	+0·4
9	60·0	48·3	53·8	57·4	59·2	51·7	−1·8	+0·2	−0·6	−1·2	−1·0	+1·0	9	60·7	47·4	54·0	57·9	59·6	50·8	−1·1	−0·7	−0·4	−0·7	−0·6	+0·1
10	59·4	46·1	51·9	58·1	59·0	57·4	−0·6	+0·7	+0·1	−0·5	−0·4	0·0	10	59·8	45·2	51·1	58·1	59·2	57·0	−0·2	−0·2	−0·7	−0·5	−0·2	−0·4
11	64·7	56·1	59·0	62·1	62·7	56·7	−0·7	+0·1	−0·6	−0·8	−0·2	+0·6	11	65·9	55·4	59·3	61·9	64·0	55·9	+0·5	−0·6	−0·3	−1·0	+1·1	−0·2
12	64·6	52·8	60·1	63·9	62·0	58·6	−1·8	+1·2	−0·8	0·0	+0·4	+0·8	12	65·5	52·2	61·0	63·7	61·5	58·0	−0·9	+0·6	+0·1	−0·2	−0·1	+0·2
13	58·7	52·1	52·9	55·3	56·4	53·8	+0·7	0·0	+0·3	+0·1	−0·2	+0·3	13	58·6	51·7	52·0	54·1	55·1	53·1	+0·6	−0·4	−0·6	−1·1	−1·5	−0·4
14	56·0	50·3	53·8	55·4	55·0	50·7	−0·5	+0·1	−0·8	−0·3	+0·2	+0·5	14	56·6	49·4	53·9	55·9	55·0	49·9	+0·1	−0·8	−0·7	+0·2	+0·2	−0·3
15	61·6	45·0	53·7	58·7	59·6	53·7	−1·8	+0·7	−0·9	−1·4	0·0	+0·3	15	63·9	44·1	54·0	59·4	60·1	53·1	+0·5	−0·2	−0·6	−0·7	+0·5	−0·3
16	62·0	51·3	55·9	58·2	60·8	55·9	−1·6	0·0	−2·5	−0·5	+0·2	+0·3	16	63·5	51·2	57·1	59·3	61·1	55·0	−0·1	−0·1	−1·3	+0·6	+0·5	−0·6
17	66·9	54·1	57·9	66·1	61·9	57·0	−2·1	+1·0	−1·1	−1·0	+0·1	+0·3	17	69·1	53·5	58·2	67·3	62·2	56·9	+0·1	+0·4	−0·8	+0·2	+0·4	+0·2
18	64·0	53·3	54·5	61·1	62·4	53·8	−0·1	+2·2	+0·2	+0·5	+0·3	+1·1	18	64·8	51·7	54·9	61·1	63·1	52·5	+0·7	+0·6	+0·6	+0·5	+1·0	−0·2
19	65·6	48·2	53·5	61·8	64·9	57·2	−0·2	+3·1	−2·0	−0·1	0·0	+2·8	19	65·6	47·2	54·4	61·9	64·9	55·9	−0·2	+2·1	−1·1	0·0	0·0	+1·5
20	62·8	48·3	54·9	59·2	59·4	53·1	−1·4	+2·5	−1·1	−0·1	−0·2	+1·0	20	63·9	47·3	55·2	59·8	60·2	52·4	−0·3	+1·5	−0·8	+0·5	+0·6	+0·3
21	61·0	43·1	50·9	55·5	59·7	51·0	−1·7	+2·5	−0·5	−0·7	+0·6	+0·4	21	62·8	42·5	52·0	56·4	60·9	50·4	+0·1	+1·9	+0·6	+0·2	+1·8	−0·2
22	66·5	48·2	57·9	65·6	65·0	57·7	−1·5	+2·0	−1·7	−1·1	+0·3	+0·1	22	68·6	47·3	59·7	66·5	65·9	56·9	+0·6	+1·1	+0·1	−0·2	+1·2	−0·7
23	63·8	56·4	57·7	60·2	62·0	58·1	−0·9	−0·2	+0·3	−1·2	−0·6	+1·1	23	65·4	56·5	57·5	61·9	62·9	57·7	+0·7	−0·1	+0·1	+0·5	+0·3	+0·7
24	67·5	53·1	60·0	65·8	63·0	57·0	−1·1	+0·8	−2·7	−1·0	−0·6	−0·9	24	67·7	53·0	62·0	65·9	63·9	56·5	−0·9	+0·7	−0·7	−0·9	+0·3	−1·4
25	62·8	54·7	58·4	61·8	60·9	55·8	−1·4	+1·0	−0·5	−0·8	+1·1	+1·2	25	63·7	54·2	58·9	62·5	60·9	54·9	−0·5	+0·5	0·0	−0·1	+1·1	+0·3
26	61·2	50·3	54·4	58·1	56·0	50·9	−1·6	+0·7	0·0	+0·5	−0·1	+1·1	26	61·6	49·7	54·4	58·4	55·7	50·4	−1·2	+0·1	0·0	+0·8	−0·4	+0·6
27	56·7	46·1	51·3	53·4	54·9	48·9	−1·5	+1·1	−0·7	−1·1	−0·5	+2·4	27	58·5	45·0	51·6	55·5	56·0	48·6	+0·3	0·0	−0·4	+1·0	+0·6	+2·1
28	54·0	45·1	50·3	51·9	53·7	52·1	−0·1	+2·0	−0·2	−0·2	−0·3	+0·3	28	54·6	45·0	50·4	52·0	53·9	52·0	+0·5	+1·9	−0·1	−0·1	−0·1	+0·2
29	56·0	51·7	53·2	55·1	54·9	53·6	−1·0	+0·4	−0·4	−1·0	+0·1	+0·8	29	57·4	51·8	53·5	56·5	54·9	53·1	+0·4	+0·5	−0·1	+0·4	+0·1	+0·3
30	55·8	48·1	51·9	54·6	54·7	51·2	−1·2	0·0	0·0	−0·5	−0·4	+1·1	30	56·6	48·1	51·7	55·7	55·1	50·7	−0·4	0·0	−0·2	+0·6	0·0	+0·6
Means	61·7	49·2	55·1	59·2	59·5	54·1	−1·1	+1·0	−0·7	−0·4	−0·2	+0·9	Means	62·7	48·4	55·5	59·7	60·0	53·4	−0·1	+0·2	−0·2	+0·1	+0·2	+0·3

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.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	63·3	50·3	57·7	62·8	61·7	57·7	−2·7	+2·1	−0·8	−1·8	+0·1	+1·2	1	65·6	49·4	58·8	65·0	61·9	57·1	−0·4	+1·2	+0·3	+0·4	+0·3	+0·6
2	63·8	53·2	54·9	58·9	62·9	58·9	−2·0	+1·8	−0·1	+0·2	−1·0	+0·7	2	65·7	53·3	55·0	59·9	63·9	58·8	−0·1	+1·9	0·0	+1·2	0·0	+0·6
3	65·0	57·2	58·9	62·0	64·4	61·9	−1·2	0·0	+0·3	−1·6	−0·4	+0·2	3	65·7	57·4	58·9	62·8	64·8	61·7	−0·5	+0·2	+0·3	−0·8	0·0	0·0
4	66·8	57·2	61·7	64·3	62·9	57·7	−1·2	−0·1	−1·9	−1·0	+0·2	+0·3	4	67·2	56·8	61·9	65·7	62·9	57·0	−0·8	−0·5	−1·7	+0·4	+0·2	−0·4
5	65·0	52·9	58·3	61·0	63·9	53·3	−1·0	+0·4	−0·9	−0·4	−0·7	+0·8	5	65·6	52·2	58·3	61·4	64·4	52·8	−0·4	−0·3	−0·9	0·0	−0·2	+0·3
6	60·1	42·3	48·8	58·9	59·9	50·2	−1·9	+0·1	−1·9	+0·3	−0·8	+0·7	6	61·0	41·0	50·4	58·5	60·2	49·9	−1·0	−1·2	−0·3	−0·1	−0·5	+0·4
7	61·1	45·2	55·9	59·3	58·2	56·1	−0·9	+3·0	−2·4	−0·8	−0·3	−0·2	7	61·7	44·6	58·9	60·3	58·9	55·9	−0·3	+2·4	+0·6	+0·2	+0·4	−0·4
8	64·1	51·3	57·1	61·9	62·5	52·3	−0·9	+0·1	−1·4	+0·2	+0·1	+0·9	8	64·2	50·2	58·4	63·0	62·5	51·3	−0·8	−1·0	−0·1	+1·3	+0·1	−0·1
9	62·9	40·9	48·4	60·7	58·7	49·9	0·0	+1·7	−3·2	+1·4	−0·3	+0·7	9	63·6	39·4	52·2	60·9	59·7	49·9	+0·7	+0·2	+0·6	+1·6	+0·7	+0·7
10	63·0	49·1	57·5	61·5	59·8	55·7	−1·2	+0·3	−1·2	−0·1	+0·3	+0·1	10	64·6	49·4	58·0	62·8	60·1	55·2	+0·4	+0·6	−0·7	+1·2	+0·6	−0·4
11	66·0	55·1	57·9	62·8	62·9	56·8	+0·1	0·0	−0·8	+0·1	−0·2	+0·1	11	66·1	55·2	58·8	63·6	63·8	56·2	+0·2	+0·1	+0·1	+0·9	+0·7	−0·5
12	62·8	48·6	53·7	61·0	60·0	55·4	−1·1	+2·4	−3·8	−0·4	−0·5	+0·4	12	63·5	48·0	56·9	61·9	60·1	54·8	−0·4	+1·8	−0·6	+0·5	−0·4	−0·2
13	61·0	50·2	60·3	54·6	58·9	50·5	−1·3	+0·5	−0·3	−0·3	−0·5	+0·8	13	61·6	49·1	60·6	54·8	59·7	49·8	−0·7	−0·6	0·0	−0·1	+0·3	+0·1
14	61·3	42·5	52·0	60·6	60·0	53·2	−0·8	+2·8	−1·8	+0·3	−0·5	+0·1	14	62·8	41·1	53·9	60·0	60·9	52·9	+0·7	+1·4	+0·1	−0·3	+0·4	−0·2
15	60·3	52·4	57·8	58·1	60·1	58·8	−0·5	−0·2	−0·1	−0·2	−0·4	+0·2	15	60·5	52·2	57·9	58·1	60·1	58·1	−0·3	−0·4	0·0	−0·2	−0·4	−0·5
16	62·9	57·1	59·9	60·2	60·8	59·8	−1·1	−0·6	0·0	−0·1	+0·1	+0·2	16	63·6	57·2	59·9	60·3	60·7	59·4	−0·4	−0·5	0·0	0·0	0·0	−0·2
17	61·0	53·4	59·9	60·9	61·0	53·9	−2·0	+0·7	−0·2	−0·6	+0·4	+1·2	17	61·6	52·3	60·1	58·7	61·0	53·4	−1·4	−0·4	0·0	−2·8	+0·4	+0·7
18	60·6	52·7	57·8	59·0	60·1	54·9	−1·2	+0·6	−0·7	−0·1	−0·3	+1·8	18	62·4	52·2	58·5	59·8	60·9	53·9	+0·6	+0·1	0·0	+0·7	+0·5	+0·8
19	62·2	51·8	55·5	59·5	61·8	53·1	−1·8	+1·5	+0·1	−0·2	−0·1	+0·6	19	63·1	51·2	56·0	60·5	62·4	52·7	−0·9	+0·9	+0·6	+0·8	+0·5	+0·2
20	59·2	52·1	57·8	57·3	58·9	57·7	−0·8	0·0	0·0	−1·3	−0·2	0·0	20	59·4	51·7	57·9	58·7	58·9	57·2	−0·6	−0·4	+0·1	+0·1	−0·2	−0·5
21	61·1	48·8	52·8	57·1	55·9	49·5	−0·9	+0·2	−1·7	0·0	+0·7	+0·6	21	60·8	48·0	53·7	57·6	55·9	48·9	−1·2	−0·6	−0·8	+0·5	+0·7	0·0
22	59·8	45·2	51·7	57·9	57·2	56·0	−1·0	−0·2	0·0	0·0	−0·1	+0·1	22	60·1	44·1	51·7	58·2	57·4	55·9	−0·7	−1·3	0·0	+0·3	+0·1	0·0
23	62·2	54·8	59·3	61·9	58·9	56·9	−1·0	−0·2	−1·3	−0·4	+0·2	+0·4	23	62·8	54·3	60·1	62·8	58·8	56·8	−0·4	−0·7	−0·5	+0·5	+0·1	+0·3
24	57·2	42·9	50·9	53·1	52·9	43·3	+0·7	+0·6	+0·3	+0·2	−0·2	+0·2	24	56·8	41·8	50·9	52·9	52·9	42·9	+0·3	−0·5	+0·3	0·0	−0·2	−0·2
25	51·0	38·6	42·8	49·2	50·4	39·4	−0·4	0·0	−0·8	+0·4	+0·7	+3·0	25	51·1	37·5	42·9	48·9	50·2	38·7	−0·3	−1·1	−0·7	+0·1	+0·5	+2·3
26	46·5	34·3	43·9	46·1	45·7	45·9	−0·5	+3·2	−0·1	−0·4	+0·1	0·0	26	46·8	33·1	43·8	46·1	45·1	45·2	−0·2	+2·0	−0·2	−0·4	−0·5	−0·7
27	47·5	43·3	44·9	45·8	44·6	45·4	0·0	−0·5	−0·1	+0·2	+0·5	−0·2	27	47·5	42·0	44·0	44·8	43·2	44·2	0·0	−1·8	−1·0	−0·8	−0·9	−1·4
28	47·1	39·8	45·8	46·9	45·6	40·3	+0·1	+0·2	+0·1	+0·1	0·0	+0·7	28	46·9	37·7	45·7	46·9	45·0	38·9	−0·1	−1·9	0·0	+0·1	−0·6	−0·7
29	44·0	35·3	39·9	41·9	43·6	35·6	0·0	+3·9	−0·1	0·0	+0·1	+4·2	29	43·6	34·0	39·1	41·9	43·1	34·9	−0·4	+2·6	−0·9	0·0	−0·4	+3·5
30	43·2	29·9	36·2	40·9	41·9	37·0	+0·2	+1·7	−0·4	−0·5	+0·1	+1·6	30	42·7	28·1	35·9	41·0	41·8	36·0	−0·3	−0·1	−0·7	−0·4	0·0	+0·6
31	46·2	35·7	42·4	45·1	45·9	44·9	−0·2	+0·8	−0·3	−0·5	+0·3	+0·3	31	46·4	35·1	42·3	44·9	45·0	43·9	0·0	+0·2	−0·4	−0·7	−0·6	−0·7
Means	58·7	47·2	53·0	56·5	56·8	51·7	−0·9	+0·9	−0·8	−0·2	−0·1	+0·7	Means	59·2	46·4	53·6	56·9	57·0	51·1	−0·3	+0·1	−0·2	+0·1	+0·1	+0·1

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.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	51·0	44·2	47·9	49·1	50·8	47·1	−0·7	−0·1	+0·2	−0·4	+0·2	+2·2	1	51·6	43·3	47·9	49·0	50·9	46·9	−0·1	−1·0	+0·2	−0·5	+0·3	+2·0
2	54·8	45·3	46·6	53·7	53·1	48·7	−0·3	+0·7	−1·5	−0·2	−0·2	+0·1	2	54·8	45·2	47·3	53·9	53·7	48·3	−0·3	+0·6	−0·8	0·0	+0·4	−0·3
3	53·9	48·1	51·8	52·9	53·1	50·9	−0·3	−0·2	0·0	−0·5	−0·3	+0·3	3	53·9	48·2	51·1	53·1	53·3	50·6	−0·3	−0·1	−0·7	−0·3	−0·1	0·0
4	52·0	46·2	48·8	50·9	51·9	49·9	−0·1	+0·8	+0·3	−0·7	−0·1	+1·2	4	51·9	46·5	48·8	51·4	51·8	49·7	−0·2	+1·1	+0·3	−0·2	−0·2	+1·0
5	53·1	37·1	40·9	50·2	52·9	42·9	−1·5	−0·1	+0·3	−1·1	−0·2	+2·7	5	54·6	36·6	41·1	50·8	53·8	40·9	0·0	−0·6	+0·5	−0·5	+0·7	+0·7
6	56·9	37·5	41·6	54·7	54·2	41·0	+0·2	+3·3	0·0	−0·1	0·0	+3·1	6	57·2	35·8	43·2	55·1	55·6	41·8	+0·5	+1·6	+1·6	+0·3	+1·4	+3·9
7	47·0	36·7	42·9	45·9	46·7	41·3	0·0	+1·9	−0·1	0·0	+0·1	+0·7	7	47·0	36·1	42·8	45·9	46·2	41·0	0·0	+1·3	−0·2	0·0	−0·4	+0·4
8	48·0	35·2	37·2	47·1	46·6	39·9	−0·9	+0·1	−1·4	−0·4	−0·1	+2·2	8	48·6	35·1	37·9	46·9	46·4	38·9	−0·3	0·0	−0·7	−0·6	−0·3	+1·2
9	49·0	29·9	33·4	46·9	47·1	44·8	+0·5	+0·8	+0·2	+0·5	−0·3	+0·2	9	48·8	29·3	33·4	46·1	47·6	44·4	+0·3	+0·2	+0·2	−0·3	+0·2	−0·2
10	47·0	38·6	40·6	46·5	44·9	39·7	+0·4	−0·4	−0·5	+0·4	+0·4	+2·0	10	46·6	37·9	40·5	46·3	44·9	39·1	0·0	−1·1	−0·6	+0·2	+0·4	+1·4
11	46·4	35·1	39·8	45·0	46·0	44·7	+0·2	+1·0	+0·3	+0·4	+0·4	+0·4	11	46·6	33·9	39·8	44·9	45·7	44·6	+0·4	−0·2	+0·3	+0·3	+0·1	+0·3
12	53·9	43·1	49·1	52·6	52·4	50·9	+0·1	0·0	−0·3	0·0	+0·1	+0·3	12	53·8	42·9	49·2	52·7	52·4	50·9	0·0	−0·2	−0·2	+0·1	+0·1	+0·3
13	51·0	38·9	43·0	45·8	44·9	39·1	0·0	+1·1	+0·4	+0·2	+0·5	+1·3	13	51·1	37·6	42·9	45·7	44·4	38·6	+0·1	−0·2	+0·3	+0·1	0·0	+0·8
14	41·5	32·1	35·7	39·4	40·7	36·9	−0·5	+2·0	+0·7	0·0	+0·3	−0·2	14	42·1	31·6	35·3	39·4	40·8	36·9	+0·1	+1·5	+0·3	0·0	+0·4	−0·2
15	41·8	35·2	38·3	41·0	41·1	38·7	−0·2	−0·6	−0·3	−0·6	−0·2	+0·1	15	41·9	35·1	38·4	41·2	41·0	38·0	−0·1	−0·7	−0·2	−0·4	−0·3	−0·6
16	40·8	33·2	35·0	37·9	39·6	37·7	+0·6	+0·1	−0·2	−0·6	0·0	+0·5	16	40·8	32·1	35·0	37·9	39·4	37·1	+0·6	−1·0	−0·2	−0·6	−0·2	−0·1
17	46·8	34·6	37·1	43·8	45·6	41·3	−1·2	+0·4	+0·1	−0·6	0·0	−0·1	17	47·4	34·1	36·9	43·9	45·5	40·9	−0·6	−0·1	−0·1	−0·5	−0·1	−0·5
18	46·0	38·1	40·9	45·2	43·2	38·9	−1·0	−0·1	−0·9	−0·7	+0·1	+0·3	18	47·4	36·6	40·9	45·9	43·1	37·9	+0·4	−1·6	−0·9	0·0	0·0	−0·7
19	42·9	36·1	39·3	41·5	41·0	37·5	−0·6	+0·5	−0·3	−0·3	−0·3	+0·9	19	44·5	34·2	39·1	42·1	41·1	37·0	+1·0	−1·4	−0·5	+0·3	−0·2	+0·4
20	42·8	34·2	36·1	37·0	42·0	39·7	+1·3	+2·0	+0·5	+0·4	+0·5	+2·1	20	43·6	34·1	36·7	37·8	42·8	39·3	+2·1	+1·9	+1·1	+1·2	+1·3	+1·7
21	43·0	31·2	33·1	41·0	42·9	36·8	−0·5	+0·1	−0·1	−0·6	+0·2	+0·5	21	43·2	31·1	32·9	40·9	42·8	36·2	−0·3	0·0	−0·3	−0·7	+0·1	−0·1
22	40·0	31·0	33·7	37·9	37·8	33·0	0·0	−0·7	−0·4	−0·6	+0·2	+0·1	22	39·8	31·1	33·6	37·9	37·9	32·6	−0·2	−0·6	−0·5	−0·6	+0·3	−0·3
23	38·9	30·1	33·0	35·6	38·2	36·2	0·0	−1·4	−0·2	−0·2	0·0	+1·0	23	39·0	30·9	33·1	35·8	38·2	36·2	+0·1	−0·6	−0·1	0·0	0·0	+1·0
24	40·3	29·3	31·9	38·3	39·3	37·9	+0·3	−1·4	−0·4	−0·1	−0·1	+0·2	24	40·4	29·9	31·9	38·7	39·6	37·9	+0·4	−0·8	−0·4	+0·3	+0·2	+0·2
25	43·1	28·6	39·7	41·9	41·9	30·2	−0·1	+1·0	+0·3	0·0	−0·2	+0·8	25	43·5	29·3	39·9	42·0	41·9	30·7	+0·3	+1·7	+0·5	+0·1	−0·2	+1·3
26	43·0	30·2	37·2	40·7	42·5	38·1	+0·1	+0·9	+0·1	−0·4	−0·2	+1·7	26	42·9	30·1	37·1	40·9	42·9	38·8	0·0	+0·8	0·0	−0·2	+0·2	+2·4
27	44·6	36·4	39·6	43·0	42·3	43·6	−0·2	+0·1	+0·2	−0·9	+0·2	0·0	27	44·9	38·0	39·9	43·9	42·5	43·5	+0·1	+1·7	+0·5	0·0	+0·4	−0·1
28	52·0	42·1	46·9	50·8	51·0	50·0	−0·5	−0·9	−0·5	+0·1	0·0	+0·2	28	52·4	42·8	46·9	50·9	50·9	49·9	−0·1	−0·2	−0·5	+0·2	−0·1	+0·1
29	52·8	44·6	51·4	51·3	50·9	45·9	+0·3	−1·3	0·0	0·0	−0·2	0·0	29	52·6	45·4	51·1	50·9	50·7	45·9	+0·1	−0·5	−0·3	−0·4	−0·4	0·0
30	48·1	40·7	41·7	46·2	46·1	43·1	−0·1	+0·6	−0·6	−0·6	+0·3	0·0	30	48·6	39·1	41·5	46·9	45·8	42·9	+0·4	−1·0	−0·8	+0·1	0·0	−0·2
Means	47·1	36·8	40·5	45·1	45·7	41·5	−0·2	+0·3	−0·1	−0·3	0·0	+0·8	Means	47·4	36·5	40·5	45·3	45·8	41·2	+0·1	0·0	−0·1	−0·1	+0·1	+0·5

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.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	47·2	37·7	42·9	43·7	46·2	45·0	+0·2	−1·0	+0·4	+0·1	−0·4	+0·4	1	47·4	38·0	42·8	43·7	46·0	44·9	+0·4	−0·7	+0·3	+0·1	−0·6	+0·3
2	52·8	39·5	41·1	44·7	44·1	52·4	+0·1	−1·1	−0·4	+0·1	+0·1	−0·2	2	52·6	40·1	41·1	44·9	44·4	52·3	−0·1	−0·5	−0·4	+0·3	+0·4	−0·3
3	52·9	38·3	40·9	42·5	42·9	39·9	−0·1	−1·0	−0·1	−0·5	+0·3	+0·3	3	52·6	38·7	40·9	42·9	42·4	39·6	−0·4	−0·6	−0·1	−0·1	−0·2	0·0
4	44·2	35·6	37·6	41·9	43·1	36·6	−0·3	+0·3	−1·0	−0·7	+0·1	+0·2	4	44·4	34·9	37·9	42·4	43·1	36·5	−0·1	−0·4	−0·7	−0·2	+0·1	+0·1
5	44·6	30·1	32·6	40·2	41·0	38·6	+1·3	+0·2	+0·9	−1·3	+2·0	+0·3	5	43·7	29·7	32·1	41·0	41·8	38·1	+0·4	−0·2	+0·4	−0·5	+2·8	−0·2
6	41·9	34·1	36·9	39·5	39·8	37·6	0·0	0·0	+0·1	−1·1	+0·2	+0·9	6	41·7	34·1	36·9	39·9	39·5	37·6	−0·2	0·0	+0·1	−0·7	−0·1	+0·9
7	37·6	30·1	33·9	36·1	37·1	36·0	+0·9	+0·9	+0·1	+0·2	−0·1	+0·1	7	37·8	29·9	33·9	35·9	37·2	36·0	+1·1	+0·7	+0·1	0·0	0·0	+0·1
8	41·0	31·7	34·1	38·5	39·8	32·9	+0·8	−0·4	+1·4	−0·1	+1·6	+0·3	8	41·1	31·6	33·7	38·9	39·9	32·7	+0·9	−0·5	+1·0	+0·3	+1·7	+0·1
9	42·8	29·1	32·0	38·9	42·1	41·1	−0·2	+0·3	+0·5	−1·5	+1·0	+0·4	9	43·1	28·9	31·9	40·4	42·7	41·6	+0·1	+0·1	+0·4	0·0	+1·6	+0·9
10	47·8	39·9	45·9	47·3	47·0	46·2	−0·1	−0·2	+0·2	−0·2	+0·3	−0·1	10	47·8	41·1	45·9	47·5	46·9	46·1	−0·1	+1·0	+0·2	0·0	+0·2	−0·2
11	47·0	40·1	46·0	45·9	44·1	41·4	+0·1	−0·9	+0·1	−0·2	0·0	+0·3	11	47·1	40·3	46·1	46·2	44·4	40·9	+0·1	−0·7	+0·2	+0·1	+0·3	−0·2
12	42·0	33·7	35·5	35·9	37·1	41·1	+0·9	−1·3	0·0	0·0	−0·2	−0·3	12	41·4	34·4	35·4	35·9	37·0	40·9	+0·3	−0·6	−0·1	0·0	−0·3	−0·5
13	42·5	38·3	42·0	42·1	41·9	39·9	−0·1	−1·3	+0·1	−0·3	0·0	+0·3	13	42·6	39·1	41·9	42·1	41·9	39·6	0·0	−0·5	0·0	−0·3	0·0	0·0
14	40·3	35·1	39·2	39·6	39·6	39·3	0·0	−0·9	−0·4	0·0	0·0	0·0	14	40·3	34·3	39·0	39·7	39·3	39·0	+0·2	−1·7	−0·6	+0·1	−0·3	−0·3
15	40·0	31·8	37·7	36·9	37·2	33·0	+0·7	−1·0	+0·1	+0·3	−0·3	+0·2	15	39·7	32·1	37·7	36·8	37·1	32·7	+0·4	−0·7	+0·1	+0·2	−0·4	−0·1
16	38·8	32·6	34·2	36·1	38·0	37·9	−0·2	0·0	+0·1	−0·3	0·0	−0·3	16	38·6	32·0	33·9	35·9	37·9	37·6	−0·4	−0·6	−0·2	−0·5	−0·1	−0·6
17	41·0	37·2	38·9	39·6	40·9	40·0	−0·1	−0·6	+0·3	+0·1	0·0	+0·1	17	41·2	37·2	38·7	39·8	40·9	39·9	+0·1	−0·6	+0·1	+0·3	0·0	0·0
18	41·2	37·7	40·0	40·2	41·1	38·2	+0·1	−0·4	+0·1	−0·3	+0·2	+0·1	18	41·4	37·2	40·0	40·1	40·9	37·9	+0·3	−0·9	+0·1	−0·4	0·0	−0·2
19	42·9	29·6	35·4	41·9	40·0	34·9	−0·1	+2·0	+1·8	−0·1	−1·8	+0·1	19	42·6	29·1	35·4	41·9	39·9	34·7	−0·4	+1·5	+1·8	−0·1	−1·9	−0·1
20	37·4	26·5	28·5	34·7	35·8	30·6	+0·7	0·0	−0·3	−0·6	+0·5	+0·4	20	36·9	25·3	28·1	34·9	35·1	30·1	+0·2	−1·2	−0·7	−0·4	−0·2	−0·1
21	36·0	24·8	27·0	33·9	33·3	35·2	−0·3	+2·7	+2·8	−1·1	+0·1	+0·3	21	36·6	23·1	25·9	34·9	32·9	35·1	+0·3	+1·0	+1·7	−0·1	−0·3	+0·2
22	53·8	33·1	51·0	52·0	53·1	51·9	+0·6	−0·3	−0·2	0·0	+0·1	+0·3	22	53·6	33·2	50·9	52·0	53·2	51·9	+0·4	−0·2	−0·3	0·0	+0·2	+0·3
23	53·0	48·3	51·9	51·2	52·0	49·1	+0·8	−0·6	+0·3	−0·4	+0·1	0·0	23	52·6	49·0	51·9	51·3	51·9	49·0	+0·4	+0·1	+0·3	−0·3	0·0	−0·1
24	49·8	33·1	37·6	40·1	42·8	35·6	+0·7	+2·2	+0·8	−0·2	+1·8	+4·7	24	49·4	33·2	37·0	40·0	43·3	34·9	+0·3	+2·3	+0·2	−0·3	+2·3	+4·0
25	44·8	32·4	39·1	44·2	43·6	37·1	+0·2	+2·9	+0·5	+0·3	+0·6	+0·5	25	45·0	32·1	39·2	44·1	43·3	37·0	+0·4	+2·6	+0·6	+0·2	+0·3	+0·4
26	53·0	35·9	47·0	50·9	51·1	48·5	−0·2	−0·2	−0·3	−0·2	+0·1	+0·5	26	53·0	36·0	47·0	51·0	51·0	48·1	−0·2	−0·1	−0·3	−0·1	0·0	+0·1
27	52·7	47·1	50·0	51·5	51·7	51·2	−0·1	−0·2	0·0	−0·2	+0·5	+0·2	27	52·9	47·2	49·9	51·6	51·8	51·1	+0·1	−0·1	−0·1	−0·1	+0·6	+0·1
28	53·2	48·2	52·8	51·5	50·9	49·1	−0·3	0·0	0·0	0·0	+0·1	−0·2	28	53·1	48·2	52·6	51·6	50·9	49·0	−0·4	0·0	−0·2	+0·1	+0·1	−0·3
29	49·4	37·0	42·1	43·8	43·5	37·7	+0·1	+0·7	+0·2	0·0	+0·1	+1·3	29	49·3	35·1	41·8	43·9	43·4	36·1	0·0	−1·2	−0·1	+0·1	0·0	−0·3
30	43·5	30·0	32·9	39·9	42·2	42·2	+0·5	+1·8	+1·3	+1·3	+0·5	+0·6	30	43·7	29·3	32·8	40·4	42·2	42·1	+0·7	+1·1	+1·2	+1·8	+0·5	+0·5
31	51·3	41·0	45·4	49·7	48·7	42·5	−0·5	+0·3	−0·2	0·0	+0·9	+1·5	31	51·6	40·7	45·2	49·8	48·1	42·0	−0·2	0·0	−0·4	+0·1	+0·3	+1·0
Means	45·4	35·5	39·7	42·4	43·0	40·7	+0·2	+0·1	+0·3	−0·2	+0·3	+0·4	Means	45·3	35·3	39·6	42·6	42·9	40·5	+0·1	−0·1	+0·1	0·0	+0·2	+0·2

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 1909.

[Until the end of April no observations were made of this thermometer on Sundays, Good Friday, and Easter Monday.]

JANUARY.

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.			
	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	42·9	44·3	46·0	45·0	+ 0·3	− 0·5	− 0·2	+ 0·2
2	44·5	45·6	46·0	45·8	− 0·5	− 0·3	− 0·5	− 0·2
3								
4	43·3	44·4	44·0	41·2	+ 0·5	− 0·5	− 0·2	+ 0·2
5	33·3	34·6	35·0	34·3	+ 0·3	− 0·4	− 0·1	0·0
6	38·2	41·8	41·9	42·1	− 0·4	− 0·4	+ 0·1	− 0·5
7	38·9	40·0	38·9	40·5	0·0	− 0·3	0·0	− 0·3
8	35·2	36·8	36·2	35·3	0·0	0·0	+ 0·1	0·0
9	33·9	35·0	35·5	37·2	+ 0·3	0·0	0·0	− 0·1
11	46·5	47·4	44·3	41·4	− 0·3	− 0·3	0·0	+ 0·2
12	38·2	38·8	38·2	34·2	+ 0·1	− 0·3	+ 0·3	+ 0·1
13	35·9	38·9	40·1	43·3	0·0	0·0	0·0	0·0
14	37·9	40·2	41·4	46·0	+ 0·1	− 0·3	0·0	+ 0·2
15	36·3	37·1	38·0	37·3	+ 0·4	+ 0·1	+ 0·4	+ 0·3
16	34·0	35·1	36·2	35·1	+ 0·1	+ 0·3	+ 0·3	+ 0·3
18	42·5	43·3	43·2	44·0	− 0·1	− 0·5	+ 0·2	+ 0·1
19	39·3	39·5	39·5	35·7	− 0·3	− 0·4	− 0·3	+ 1·1
20	33·7	36·1	37·9	35·0	+ 1·0	− 0·7	+ 0·1	+ 1·3
21	33·0	36·4	37·8	36·1	− 0·2	− 0·5	− 0·2	+ 0·1
22	34·1	33·0	31·8	32·0	+ 0·2	− 0·2	0·0	− 0·1
23	31·0	30·1	29·8	29·3	+ 0·1	− 0·2	+ 0·3	− 0·4
25	28·7	35·0	36·9	32·4	+ 1·2	− 1·0	0·0	+ 0·5
26	33·0	35·8	36·9	32·0	+ 0·6	− 0·9	0·0	+ 0·8
27	28·0	29·0	28·7	27·0	− 0·3	− 0·4	− 0·4	− 0·2
28	26·3	27·9	29·6	25·0	− 0·6	− 0·7	+ 0·5	+ 1·0
29	29·9	38·5	41·8	38·8	+ 0·8	− 0·8	− 0·4	+ 0·2
30	32·8	31·0	30·0	28·7	− 0·1	− 0·8	− 0·1	+ 0·8
Means	35·8	37·5	37·9	36·7	+ 0·1	− 0·4	0·0	+ 0·2

FEBRUARY.

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.			
	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	39·2	40·0	38·0	35·2	− 0·6	+ 0·2	− 0·4	+ 0·2
2	33·0	37·1	40·5	41·2	+ 0·2	− 0·3	− 0·3	− 0·6
3	46·4	48·2	49·0	48·2	− 0·4	− 0·5	− 0·2	− 0·6
4	48·1	49·2	49·0	47·4	− 0·6	− 0·4	− 0·6	− 0·4
5	43·6	40·4	40·3	39·0	− 0·7	− 0·7	0·0	+ 0·3
6	36·7	38·9	39·4	34·0	0·0	0·0	+ 0·4	+ 2·9
8	31·0	34·0	34·3	31·0	− 0·5	− 0·7	− 0·4	+ 0·9
9	33·0	36·0	37·3	38·0	+ 0·2	− 0·8	− 0·3	− 0·2
10	33·8	36·0	36·8	35·5	+ 0·1	− 0·4	+ 0·2	− 0·2
11	35·9	36·9	35·8	33·2	+ 0·1	− 0·1	0·0	− 0·1
12	29·0	31·0	31·1	28·4	+ 0·9	+ 0·2	+ 0·2	− 0·2
13	30·0	31·1	32·9	33·0	− 0·1	− 0·6	− 0·1	+ 0·4
15	42·8	43·0	41·1	37·0	+ 0·6	+ 0·4	− 0·6	+ 0·7
16	31·8	35·0	34·5	34·8	− 0·2	+ 0·2	− 0·4	+ 0·2
17	32·0	38·0	38·2	32·8	0·0	− 0·1	− 0·4	+ 2·6
18	35·0	38·8	37·2	32·3	− 1·4	− 0·7	− 0·4	+ 0·7
19	30·7	35·5	37·5	32·0	− 0·1	− 0·8	− 1·1	+ 0·7
20	32·9	37·8	39·0	32·3	− 0·4	− 1·8	− 0·8	+ 0·7
22	30·0	37·4	35·0	31·2	− 0·6	− 0·7	− 0·4	+ 2·2
23	24·8	30·2	35·5	31·8	+ 0·2	+ 0·1	+ 0·5	0·0
24	28·8	32·6	30·6	28·7	− 0·1	− 0·6	+ 0·4	+ 0·1
25	31·0	31·3	31·5	29·0	− 0·6	0·0	− 0·3	+ 0·1
26	31·0	32·0	32·0	29·8	+ 0·1	− 0·3	− 0·1	+ 0·5
27	30·8	32·0	32·5	32·0	− 0·4	− 0·3	− 0·3	+ 0·1
Means	34·2	36·8	37·0	34·5	− 0·2	− 0·4	− 0·2	+ 0·5

MARCH.

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.			
	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	29·6	30·5	31·8	29·9	− 0·1	− 0·6	− 0·5	− 0·6
2	26·2	32·0	31·7	28·5	− 0·4	+ 0·2	− 0·3	+ 0·2
3	27·5	32·0	30·7	30·3	− 0·3	− 0·7	− 0·2	− 0·2
4	29·0	30·4	30·8	24·9	− 0·3	− 0·1	+ 0·2	+ 2·8
5	23·3	32·0	33·0	27·0	+ 0·2	− 1·0	− 0·1	+ 1·2
6	33·7	33·0	35·9	36·2	− 0·1	− 0·1	0·0	0·0
8	37·0	40·1	39·4	34·1	− 1·5	− 1·8	− 1·8	0·0
9	33·4	35·0	36·0	34·0	− 0·4	− 0·9	− 0·3	+ 0·1
10	36·0	36·0	37·3	35·0	− 0·6	− 0·3	− 0·4	+ 0·1
11	33·9	34·0	34·0	33·0	0·0	− 0·1	0·0	0·0
12	33·0	33·8	32·8	34·8	− 0·3	− 0·4	− 0·4	+ 0·1
13	32·5	34·1	35·8	34·8	− 0·1	+ 0·1	+ 0·7	+ 0·5
15	29·6	31·8	31·6	31·2	− 0·1	0·0	+ 0·1	+ 0·2
16	29·8	33·8	32·7	30·9	− 0·6	− 0·5	− 0·6	+ 0·3
17	31·8	36·0	36·2	35·7	− 0·2	− 0·6	− 0·7	+ 0·1
18	39·3	41·3	40·5	41·9	− 1·4	− 1·0	− 0·3	+ 0·1
19	44·9	46·2	48·1	44·3	− 0·6	− 0·7	− 0·4	+ 0·3
20	46·0	48·0	49·0	44·8	− 0·6	− 1·1	− 0·2	− 0·1
22	44·0	46·2	45·6	43·3	− 1·2	− 1·2	− 0·4	− 0·3
23	43·2	44·0	44·5	42·9	− 0·5	− 0·3	− 0·7	+ 0·4
24	44·9	47·9	47·9	48·4	− 0·3	− 0·3	− 0·1	− 0·2
25	43·5	46·2	46·0	40·0	− 0·3	− 0·5	+ 0·2	+ 0·1
26	36·9	40·1	39·5	38·5	+ 0·1	+ 0·5	+ 0·6	+ 0·4
27	37·5	40·9	42·1	38·2	− 0·3	+ 0·7	− 0·4	+ 0·3
29	49·6	51·2	51·7	48·1	− 0·5	− 1·1	− 0·8	+ 0·2
30	45·8	46·0	47·5	44·8	− 1·0	− 0·1	− 0·3	+ 0·2
31	45·0	46·1	48·0	43·8	− 1·4	− 0·7	− 0·1	+ 0·5
Means	36·6	38·8	39·3	37·0	− 0·5	− 0·5	− 0·3	+ 0·2

APRIL.

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.			
	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	40·0	39·1	39·0	35·0	+ 0·2	+ 0·3	− 0·3	+ 0·4
2	37·2	38·4	38·9	34·9	+ 0·3	− 0·3	− 0·3	+ 0·9
3	37·2	40·0	41·1	34·8	− 2·1	− 1·8	− 0·9	+ 1·2
5	38·5	41·1	40·9	37·6	− 0·5	+ 0·5	+ 0·4	+ 0·8
6	43·5	45·7	45·0	38·2	0·0	− 0·4	− 0·3	+ 0·4
7	43·7	47·6	44·8	38·0	− 0·1	− 1·2	− 0·7	+ 0·2
8	42·9	48·1	49·1	36·8	− 0·6	− 1·5	− 0·7	+ 0·9
10	46·1	48·6	50·9	44·0	− 0·4	− 0·4	− 0·9	+ 1·6
13	47·2	49·8	50·5	48·0	− 0·4	− 0·1	− 0·3	0·0
14	48·8	46·9	48·7	46·6	+ 1·0	− 0·9	− 1·2	+ 0·8
15	46·0	47·4	50·0	45·0	− 0·7	− 0·6	− 1·0	+ 1·1
16	47·0	47·8	52·3	49·0	− 0·8	− 1·1	− 0·5	+ 0·2
17	51·0	52·2	52·9	49·5	− 0·5	0·0	− 0·1	+ 0·3
19	49·3	53·6	54·6	51·2	− 1·5	− 1·8	− 0·1	− 0·5
20	45·9	47·9	47·0	42·0	− 0·4	+ 0·1	+ 1·1	− 0·4
21	45·3	49·3	47·0	43·1	− 1·6	− 0·3	− 0·7	+ 0·4
22	48·1	50·0	50·8	49·2	− 1·9	− 1·8	− 0·9	− 0·1
23	48·9	50·4	51·0	47·0	+ 0·1	− 0·8	− 0·9	+ 0·8
24	53·2	54·0	50·0	46·4	− 0·3	− 0·8	− 0·8	+ 0·1
26	50·0	52·0	52·1	48·5	− 0·8	+ 0·3	0·0	+ 0·5
27	50·0	48·0	49·8	48·8	− 0·5	+ 0·4	− 0·4	+ 0·7
28	48·0	49·1	48·9	45·8	− 0·6	+ 1·0	+ 0·8	+ 0·8
29	44·3	47·8	46·5	41·6	+ 0·1	− 0·5	− 0·6	− 0·1
30	39·9	40·0	42·0	39·0	+ 0·2	− 0·4	− 1·2	+ 0·3
Means	45·5	47·3	47·7	43·3	− 0·5	− 0·5	− 0·4	+ 0·5

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

MAY.

Days of the Month.	Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground. 9h	Noon.	15h	21h	Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground. 9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	37·1	38·5	40·0	37·3	+ 0·1	+ 0·2	− 0·2	+ 0·5
2	40·3	42·8	43·1	41·2	− 0·3	0·0	+ 0·1	+ 1·0
3	46·2	46·2	47·0	42·0	− 1·5	− 0·5	− 0·6	+ 0·5
4	47·2	48·3	46·5	43·9	− 1·6	− 1·7	+ 0·4	+ 0·8
5	49·0	46·0	47·2	48·0	− 0·3	+ 0·2	− 0·5	+ 0·2
6	52·0	54·0	49·0	45·0	− 0·8	− 0·1	− 0·8	+ 0·2
7	47·0	49·0	46·4	42·9	− 0·8	− 0·3	− 0·5	+ 0·1
8	44·9	46·9	46·8	41·5	− 0·9	− 0·6	+ 1·0	+ 0·7
9	45·8	50·0	47·2	43·1	− 0·4	+ 1·0	+ 0·6	+ 0·2
10	45·9	49·0	47·8	42·9	+ 1·1	+ 0·3	− 0·3	+ 1·0
11	47·0	53·3	55·9	49·6	− 0·9	− 0·2	+ 0·7	+ 0·6
12	54·0	54·0	55·3	45·3	− 1·1	− 0·5	− 0·4	+ 0·5
13	43·0	42·9	43·0	42·1	+ 0·1	+ 1·1	+ 0·4	+ 0·8
14	39·1	40·6	44·0	41·3	− 0·9	− 0·3	0·0	+ 0·3
15	41·1	42·1	43·6	38·0	0·0	+ 0·8	+ 0·6	+ 0·7
16	43·8	44·6	45·0	42·2	− 1·0	− 0·2	− 1·0	+ 0·6
17	44·3	43·5	45·9	44·0	0·0	0·0	+ 0·1	+ 0·9
18	48·9	50·4	51·4	47·2	0·0	+ 1·5	− 0·7	+ 1·2
19	50·0	53·4	56·9	47·7	− 0·1	− 0·4	+ 0·9	+ 1·9
20	56·5	58·3	57·9	51·9	0·0	0·0	+ 1·1	+ 1·4
21	60·0	63·8	63·0	58·4	− 0·2	+ 1·7	+ 0·1	+ 1·8
22	60·5	63·8	65·0	60·9	+ 0·5	− 0·1	+ 1·2	+ 1·3
23	60·9	64·9	63·0	57·3	− 0·4	− 0·2	+ 0·2	+ 1·1
24	55·9	58·7	60·5	50·3	+ 1·3	+ 1·1	+ 0·9	+ 1·0
25	52·8	55·2	56·0	51·2	− 0·5	− 0·5	− 0·8	+ 0·1
26	48·3	52·1	54·3	48·0	+ 0·1	− 0·2	− 0·5	+ 0·2
27	51·0	52·5	51·2	49·2	− 0·5	− 0·3	− 0·9	+ 0·1
28	52·8	54·0	55·9	50·3	+ 0·8	− 1·7	− 0·9	+ 0·4
29	54·3	53·2	54·4	52·8	− 1·1	− 0·6	+ 0·5	+ 0·7
30	54·1	58·2	60·3	57·2	− 1·0	− 0·6	− 0·5	+ 0·3
31	59·0	61·4	62·2	57·0	− 1·2	− 1·2	+ 0·5	+ 1·9
Means	49·4	51·3	51·8	47·4	− 0·4	− 0·1	0·0	+ 0·7

JUNE.

Days of the Month.	Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground. 9h	Noon.	15h	21h	Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground. 9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	59·3	58·8	56·8	53·0	0·0	0·0	− 0·1	+ 0·3
2	49·0	49·2	49·0	46·8	0·0	− 0·3	− 0·5	− 0·1
3	47·0	47·4	46·8	45·8	− 0·1	− 0·5	+ 0·2	+ 0·7
4	45·2	47·0	49·3	49·3	− 0·3	− 0·6	− 0·5	− 0·1
5	50·0	50·8	51·7	48·8	− 0·4	0·0	− 0·2	+ 0·2
6	44·0	46·1	47·2	45·2	− 0·6	− 0·7	+ 0·2	− 0·4
7	47·1	50·0	51·0	47·6	− 1·7	− 0·9	− 0·8	+ 1·7
8	50·5	54·2	55·1	50·2	− 1·4	− 0·2	− 0·6	− 0·8
9	51·1	54·8	55·2	50·3	− 1·2	− 1·2	− 0·7	− 0·5
10	50·0	48·8	48·4	44·9	− 0·4	− 0·4	− 0·4	+ 1·6
11	45·0	46·0	46·0	44·2	0·0	− 1·1	− 1·5	+ 0·2
12	47·0	49·1	48·8	47·0	− 1·0	− 0·7	− 1·3	− 0·7
13	48·2	52·3	54·0	51·9	− 0·6	− 1·4	− 0·6	+ 0·7
14	52·0	57·0	57·0	52·2	− 1·6	+ 0·2	− 0·3	− 0·4
15	47·5	49·7	51·2	52·5	− 1·0	− 1·2	− 0·6	+ 0·1
16	51·0	53·3	55·9	53·5	− 0·7	− 0·9	+ 1·1	+ 0·3
17	49·3	54·2	59·2	56·4	− 0·1	− 1·5	− 0·7	+ 0·3
18	52·2	55·7	57·0	54·2	− 0·8	− 0·2	− 0·1	+ 1·2
19	56·2	60·0	60·0	58·0	− 0·8	+ 0·1	− 1·2	+ 0·2
20	56·4	58·8	59·2	54·0	− 0·1	− 1·0	− 0·8	0·0
21	56·9	58·9	57·8	55·7	− 0·9	− 0·1	− 0·9	+ 0·1
22	53·0	54·0	52·2	49·0	− 0·5	− 0·8	+ 0·4	+ 0·2
23	52·2	53·0	51·5	50·0	+ 0·4	+ 0·5	− 1·3	+ 0·6
24	52·2	51·0	53·0	50·0	− 1·5	− 0·1	− 0·1	+ 0·1
25	50·1	52·0	51·9	50·4	− 0·6	− 0·5	+ 0·1	− 0·1
26	47·8	50·7	53·0	50·0	− 0·3	− 0·4	− 0·7	− 0·1
27	50·7	50·3	52·3	50·2	− 0·5	− 0·5	− 2·0	0·0
28	54·0	55·0	55·0	52·0	− 0·8	− 0·1	− 1·7	+ 0·3
29	53·0	53·3	53·0	52·9	− 0·5	− 0·2	− 1·0	+ 0·1
30	51·0	52·7	51·8	48·0	− 0·3	− 0·3	− 0·8	+ 0·4
Means	50·7	52·5	53·0	50·5	− 0·6	− 0·5	− 0·6	+ 0·2

JULY.

Days of the Month.	Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground. 9h	Noon.	15h	21h	Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground. 9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	49·6	52·5	53·5	52·2	− 1·2	+ 0·2	− 1·1	+ 0·4
2	51·2	57·3	59·0	56·7	− 1·6	− 0·3	− 0·4	+ 1·5
3	58·4	58·8	61·2	57·9	− 0·1	− 1·1	− 1·5	− 0·1
4	61·5	61·2	59·3	54·0	− 0·8	+ 0·4	− 0·4	+ 0·2
5	56·8	57·0	57·8	53·8	− 0·5	− 0·5	− 1·3	+ 0·3
6	56·0	55·4	55·0	53·0	− 1·2	− 1·4	− 0·1	+ 0·1
7	52·0	55·0	52·4	53·3	− 0·8	− 0·8	+ 0·6	− 0·2
8	55·0	55·8	57·0	54·2	+ 0·3	0·0	− 0·3	+ 0·4
9	55·2	58·2	61·0	58·0	− 0·6	− 2·2	− 0·9	+ 0·6
10	53·2	53·0	53·7	51·0	− 0·6	+ 0·1	− 0·1	+ 0·4
11	52·2	51·9	50·0	49·9	− 0·8	+ 0·1	+ 0·2	+ 0·1
12	49·5	51·8	53·8	52·2	− 0·3	+ 0·5	− 0·3	+ 0·7
13	55·9	59·0	62·0	59·5	− 1·0	− 0·7	− 1·0	0·0
14	58·8	60·4	61·0	57·2	− 0·3	− 1·2	− 1·0	− 0·3
15	58·3	60·1	60·7	57·5	− 1·0	− 0·8	− 0·4	− 0·2
16	55·8	58·5	62·3	59·7	− 0·2	− 0·8	− 0·6	− 0·4
17	60·0	61·5	64·0	61·1	− 0·8	− 1·0	− 1·8	− 0·5
18	59·0	61·6	63·9	62·0	− 0·8	− 2·5	+ 0·1	− 0·3
19	54·2	57·9	59·0	53·2	− 0·8	− 0·4	− 0·6	− 0·1
20	54·3	58·0	59·1	57·2	− 0·8	− 0·1	− 1·8	+ 0·3
21	57·8	59·5	60·8	57·6	− 0·8	− 1·0	− 1·0	− 0·2
22	57·6	59·0	60·0	56·2	− 0·6	− 0·5	− 0·3	− 0·4
23	56·0	55·8	56·0	54·0	− 0·9	− 1·0	− 0·9	− 0·1
24	53·0	55·2	56·2	55·0	− 0·1	+ 0·6	− 1·1	+ 0·2
25	54·2	56·9	56·9	53·4	− 1·4	− 1·2	− 0·6	0·0
26	54·3	54·4	54·5	52·0	− 0·5	− 0·4	− 0·5	+ 0·5
27	55·6	57·0	56·0	56·9	− 0·6	− 0·7	− 0·3	0·0
28	55·0	57·1	57·9	54·0	− 1·0	− 0·2	− 0·4	− 0·4
29	57·5	57·4	58·0	55·7	+ 0·5	− 0·2	− 0·9	+ 0·1
30	58·1	60·3	59·0	56·3	+ 0·1	− 0·5	+ 0·3	0·0
31	62·1	63·2	65·8	59·9	− 0·5	+ 0·2	+ 1·0	+ 0·4
Means	55·7	57·4	58·3	55·6	− 0·6	− 0·6	− 0·6	+ 0·1

AUGUST.

Days of the Month.	Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground. 9h	Noon.	15h	21h	Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground. 9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	59·0	61·0	61·0	58·8	− 0·8	− 1·0	0·0	+ 0·5
2	54·0	53·6	54·2	51·0	− 0·7	+ 0·1	+ 0·7	+ 0·8
3	49·8	53·2	53·0	51·4	− 1·0	+ 1·4	− 0·2	+ 1·6
4	57·0	60·8	62·5	56·8	− 0·2	+ 0·5	− 0·3	+ 1·1
5	59·7	62·2	65·2	58·1	− 0·3	− 0·6	− 0·5	+ 2·0
6	61·0	64·0	65·8	58·5	− 1·7	+ 0·4	+ 1·3	+ 1·4
7	62·0	66·7	69·0	59·3	− 0·6	+ 0·7	+ 1·4	+ 1·4
8	63·2	63·5	64·1	57·2	− 0·5	− 0·8	+ 0·4	+ 0·8
9	56·5	66·0	66·5	61·0	− 2·3	+ 0·6	− 0·3	+ 2·4
10	60·2	64·8	68·0	58·4	+ 0·4	+ 1·1	+ 2·2	+ 0·6
11	59·0	66·0	70·1	64·9	− 1·5	− 1·2	+ 1·0	+ 2·1
12	64·0	67·9	68·0	65·8	+ 0·3	+ 0·9	− 0·6	+ 1·5
13	62·0	68·2	66·5	63·8	+ 0·2	+ 2·3	− 0·3	+ 0·7
14	64·0	67·1	69·0	66·0	+ 0·1	+ 0·1	+ 2·1	+ 1·9
15	67·8	69·8	73·0	64·4	− 1·3	− 0·4	− 0·2	+ 2·1
16	66·0	66·9	66·2	62·2	0·0	+ 0·2	− 0·2	+ 0·2
17	57·1	59·0	59·3	54·0	− 1·7	− 0·9	− 0·3	+ 0·1
18	59·5	60·6	60·1	55·8	− 0·5	− 1·2	− 0·3	+ 0·9
19	59·8	62·3	62·2	59·3	+ 0·2	− 0·5	− 0·2	+ 0·5
20	61·2	60·3	60·8	58·8	− 0·1	− 0·2	− 0·2	0·0
21	54·2	55·2	54·8	52·4	− 1·5	+ 0·7	− 2·6	+ 1·3
22	52·1	54·1	54·6	50·1	− 0·8	− 0·5	+ 1·8	+ 2·2
23	57·4	58·0	58·0	60·7	0·0	+ 0·4	− 0·1	0·0
24	60·0	61·0	61·0	57·4	− 0·5	− 0·8	+ 0·1	+ 0·2
25	57·8	58·3	60·2	57·9	− 0·2	− 0·5	− 0·6	+ 0·2
26	53·3	54·4	56·1	55·0	− 0·3	− 0·3	+ 0·3	+ 0·8
27	53·6	57·4	59·1	54·5	+ 0·1	+ 0·5	+ 0·3	+ 0·8
28	54·1	58·0	61·0	56·0	− 0·9	− 0·6	+ 1·2	+ 1·5
29	58·0	59·8	59·2	55·5	+ 1·0	+ 0·1	− 0·4	+ 0·7
30	51·6	53·8	53·0	51·0	+ 0·6	+ 2·9	+ 1·9	+ 1·1
31	49·3	50·1	50·5	47·8	+ 1·0	+ 0·3	+ 1·5	+ 1·9
Means	58·2	60·8	61·7	57·5	− 0·4	+ 0·1	+ 0·3	+ 1·1

READINGS of the WET-BULB THERMOMETER in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS—*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.			
	9h	Noon.	15h	21h	9h	Noon.	15h	21h		9h	Noon.	15h	21h	9h	Noon.	15h	21h
	SEPTEMBER.									NOVEMBER.							
d	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°
1	49·0	50·1	50·2	47·8	− 0·1	+ 0·5	+ 0·1	+ 1·1	1	47·0	47·9	48·8	46·2	0·0	− 0·4	− 0·2	+ 1·3
2	47·2	50·9	52·0	47·9	− 1·4	− 0·8	+ 0·9	+ 2·1	2	45·4	48·0	48·5	47·7	− 1·0	− 0·7	− 0·3	− 0·1
3	52·8	56·1	57·1	53·1	− 0·5	+ 0·9	+ 0·1	+ 0·9	3	51·1	52·1	52·2	49·0	− 0·6	− 0·5	− 0·5	0·0
4	55·1	56·0	56·6	56·9	+ 0·2	+ 0·6	− 0·2	− 0·1	4	47·8	49·0	50·0	49·0	− 0·1	− 0·6	− 0·1	+ 1·2
5	51·0	53·1	54·0	50·3	+ 0·8	+ 1·2	− 0·8	+ 2·4	5	40·8	48·9	46·0	40·2	+ 0·2	− 0·1	− 1·1	+ 1·4
6	59·0	60·5	59·9	52·5	+ 0·1	− 0·2	+ 0·1	+ 0·9	6	40·4	49·0	49·2	40·4	− 0·5	0·0	− 0·5	+ 2·5
7	51·9	52·4	53·9	50·0	+ 0·1	+ 0·3	− 0·3	+ 0·9	7	42·1	44·0	44·0	40·0	− 0·6	− 0·2	− 0·8	+ 0·2
8	48·7	49·2	52·8	49·2	− 0·1	+ 0·4	+ 0·7	+ 0·6	8	36·6	43·2	43·0	38·8	− 0·9	− 0·5	− 0·5	+ 1·6
9	51·7	53·2	53·8	49·8	− 0·1	− 0·5	− 0·2	+ 0·9	9	33·1	42·0	43·0	41·8	+ 0·2	+ 0·7	+ 0·2	0·0
10	51·1	54·9	57·0	56·0	+ 0·1	+ 0·1	+ 0·1	+ 0·2	10	38·8	42·1	41·8	38·1	− 0·4	+ 0·1	+ 0·1	+ 1·1
11	57·8	56·9	57·8	56·0	− 0·2	− 0·3	+ 0·3	+ 0·5	11	36·7	39·3	42·7	42·4	+ 0·2	+ 0·1	− 0·1	+ 0·2
12	56·6	59·4	58·0	55·7	− 0·5	+ 0·4	+ 0·6	+ 0·9	12	46·0	47·7	48·0	47·0	+ 0·1	− 0·2	+ 0·1	+ 0·1
13	52·1	54·2	54·2	51·9	+ 0·1	− 0·1	− 0·3	+ 0·8	13	39·0	40·8	40·5	36·8	+ 0·2	+ 0·1	+ 0·6	+ 1·0
14	50·5	50·9	50·1	47·0	− 0·4	+ 0·7	+ 0·3	+ 0·4	14	35·0	38·2	39·9	36·0	+ 0·4	− 0·4	+ 0·1	− 0·6
15	52·0	54·5	54·1	51·4	− 0·8	− 0·4	+ 0·1	+ 0·5	15	37·0	39·0	39·2	35·7	− 0·2	− 0·5	− 0·3	+ 0·5
16	54·9	55·0	56·8	54·9	− 1·9	− 0·7	− 0·2	− 0·3	16	33·6	36·9	37·8	36·5	− 0·2	− 0·4	− 0·1	+ 0·2
17	57·0	59·8	58·7	55·0	− 1·4	− 1·3	− 0·5	− 0·2	17	34·5	39·5	41·0	39·4	− 0·1	− 0·3	0·0	0·0
18	52·5	54·8	55·2	51·0	− 0·5	0·0	− 0·6	+ 0·2	18	39·4	41·4	39·9	37·0	− 0·9	− 0·5	+ 0·1	+ 0·3
19	51·7	56·0	58·0	54·0	− 1·2	− 0·6	− 0·4	+ 1·2	19	36·1	37·2	37·8	35·9	0·0	0·0	+ 0·2	+ 0·8
20	53·0	55·4	53·6	50·2	− 0·8	− 0·5	− 1·0	0·0	20	34·3	35·6	39·0	38·0	+ 0·4	0·0	+ 0·8	+ 1·4
21	47·8	50·5	52·0	48·0	− 0·8	− 1·3	− 0·8	0·0	21	32·1	37·2	39·3	35·0	+ 0·1	− 0·8	+ 0·2	+ 0·3
22	54·5	59·7	59·9	56·5	− 1·7	− 1·9	− 0·3	− 0·8	22	32·4	35·4	35·9	32·4	− 0·4	− 0·5	+ 0·1	+ 0·1
23	57·1	59·3	61·0	56·9	− 0·2	− 1·1	− 0·8	+ 0·3	23	32·7	34·4	36·5	34·8	+ 0·1	− 0·2	− 0·1	+ 0·8
24	56·7	58·0	57·0	55·6	− 1·9	− 1·2	− 0·8	− 0·4	24	31·0	35·9	37·0	36·9	− 0·6	+ 0·1	+ 0·2	+ 0·2
25	56·7	57·8	58·8	54·5	− 0·5	− 1·0	+ 0·7	+ 0·4	25	38·2	40·0	40·0	30·2	+ 0·1	+ 0·2	+ 0·2	+ 0·8
26	52·3	54·0	54·0	48·0	− 0·5	− 0·2	− 0·8	+ 0·4	26	36·2	38·2	39·0	36·1	− 0·4	− 0·1	+ 0·1	+ 1·1
27	49·0	48·8	49·6	47·0	− 0·5	− 0·2	− 0·9	+ 1·1	27	37·1	39·3	39·0	42·0	0·0	− 0·8	0·0	− 0·2
28	48·6	51·0	52·5	51·6	− 0·6	− 0·8	− 0·7	− 0·1	28	45·9	48·0	47·4	47·2	− 0·1	0·0	− 0·2	− 0·5
29	52·7	54·0	54·0	52·6	− 0·4	− 0·8	− 0·5	+ 0·1	29	50·0	50·2	50·0	44·5	− 0·1	− 0·4	− 0·1	− 0·5
30	51·0	52·6	52·4	50·6	− 0·8	− 0·4	− 0·5	+ 0·6	30	39·1	42·1	41·3	40·2	− 0·3	− 0·5	− 0·1	− 0·2
Means	52·7	54·6	55·2	52·1	− 0·5	− 0·3	− 0·2	+ 0·5	Means	39·0	42·1	42·6	39·8	− 0·2	− 0·2	− 0·1	+ 0·5
	OCTOBER.									DECEMBER.							
d	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°
1	56·8	59·2	58·8	56·9	− 0·7	− 1·3	− 0·4	+ 0·6	1	41·0	42·5	45·0	40·3	0·0	− 0·3	− 0·2	− 0·3
2	54·1	56·0	58·0	57·2	− 0·7	− 0·4	− 0·9	− 0·1	2	39·0	41·3	43·0	51·2	− 0·4	− 0·4	0·0	− 0·1
3	57·4	61·1	62·0	59·7	− 0·5	− 1·5	− 0·6	− 0·2	3	36·5	39·0	39·0	37·2	− 0·3	− 0·5	− 0·3	+ 0·1
4	58·0	59·0	59·1	57·0	− 1·5	− 0·9	− 0·6	0·0	4	37·1	40·0	40·2	35·2	− 0·8	− 0·2	+ 0·1	+ 0·1
5	57·0	58·0	58·1	49·9	− 0·8	− 0·4	− 0·9	+ 0·7	5	31·8	37·6	37·6	37·2	+ 0·8	− 0·6	+ 1·2	0·0
6	45·8	50·0	51·3	48·2	− 0·9	− 0·9	− 1·5	+ 0·4	6	36·2	38·0	37·9	36·1	− 0·4	− 0·8	+ 0·1	+ 0·2
7	52·0	52·0	52·8	55·3	− 2·0	− 0·9	0·0	− 0·5	7	33·9	35·6	35·7	35·0	+ 0·2	0·0	0·0	0·0
8	53·2	56·2	56·8	47·2	− 1·5	0·0	0·0	+ 0·3	8	32·2	35·1	36·0	32·2	+ 0·5	− 0·2	+ 0·7	+ 0·3
9	45·7	51·6	52·0	47·4	− 2·1	+ 0·8	− 0·3	+ 0·2	9	31·3	36·8	39·0	39·0	+ 0·4	− 0·8	+ 0·4	+ 0·1
10	54·5	55·9	55·2	54·8	− 1·2	− 1·1	− 0·4	0·0	10	44·7	46·1	45·8	45·3	− 0·2	− 0·6	− 0·1	− 0·3
11	55·8	56·8	55·1	55·7	− 0·5	− 0·1	− 0·7	− 0·2	11	45·2	44·7	42·9	40·0	− 0·6	− 0·3	− 0·1	0·0
12	51·2	54·8	53·8	53·3	− 2·7	− 0·2	− 0·9	+ 0·1	12	34·2	34·1	35·7	40·8	− 0·5	− 0·1	− 0·1	− 0·1
13	56·0	52·4	54·2	48·5	− 0·8	− 0·2	− 0·4	+ 0·5	13	40·8	40·3	40·0	38·0	− 0·1	− 0·5	− 0·2	− 0·3
14	48·9	52·9	52·1	50·5	− 1·1	− 0·2	− 0·7	− 0·3	14	37·8	37·4	37·4	37·3	− 0·2	− 0·4	− 0·4	− 0·5
15	56·0	56·5	55·9	56·3	− 0·2	− 0·3	− 0·3	− 0·5	15	35·0	35·0	34·8	31·8	− 0·4	− 0·3	− 0·1	0·0
16	58·3	59·3	59·1	58·5	− 0·8	− 0·5	− 0·6	− 0·5	16	32·8	34·9	36·9	37·2	+ 0·2	− 0·1	0·0	− 0·4
17	59·0	59·8	56·2	52·2	− 0·2	− 1·0	− 0·1	+ 0·2	17	38·0	38·9	40·1	39·6	− 0·2	− 0·1	− 0·4	− 0·2
18	56·0	56·1	57·1	53·9	− 0·8	− 0·7	+ 0·1	+ 1·1	18	37·9	37·8	38·4	36·8	0·0	− 0·4	− 0·1	0·0
19	54·0	56·0	57·9	51·7	− 0·5	− 0·6	− 0·7	+ 0·5	19	34·8	39·8	38·8	32·1	+ 1·5	0·0	− 1·0	+ 0·1
20	55·0	56·8	57·0	56·8	− 0·7	− 0·5	− 0·8	− 0·2	20	26·5	31·1	32·2	29·4	0·0	− 0·5	+ 0·5	+ 0·5
21	50·2	51·0	50·1	47·0	− 1·6	− 0·2	+ 0·1	+ 0·2	21	26·1	31·1	30·9	32·5	+ 2·5	− 0·9	+ 0·1	+ 0·1
22	49·0	52·9	52·2	53·8	− 0·4	− 0·7	− 0·7	− 0·3	22	50·2	51·1	51·9	50·2	− 0·6	− 0·3	− 0·1	0·0
23	56·7	56·6	56·0	53·2	− 1·0	− 1·2	− 0·8	− 0·6	23	50·0	50·0	48·9	47·5	+ 0·1	− 0·3	− 0·1	− 0·4
24	46·2	47·0	45·3	41·0	− 0·6	+ 0·2	− 0·5	+ 0·3	24	36·9	38·7	39·1	34·8	+ 0·3	+ 0·1	+ 0·8	+ 4·0
25	39·6	43·0	43·0	37·8	− 1·0	− 0·1	+ 0·5	+ 2·0	25	38·2	40·9	38·3	35·2	+ 0·4	− 0·3	− 0·2	+ 0·4
26	42·8	45·0	44·9	45·1	− 0·3	− 0·1	+ 0·1	− 0·2	26	45·9	49·0	47·8	46·2	− 0·2	− 0·7	− 0·2	− 0·5
27	44·0	44·2	43·2	43·8	− 0·1	− 0·4	− 0·2	0·0	27	48·9	49·8	50·5	50·3	− 0·3	− 0·4	− 0·2	− 0·2
28	43·1	43·0	42·3	39·1	− 0·5	+ 0·2	0·0	+ 0·3	28	49·4	47·8	46·0	45·4	− 0·6	− 0·4	− 0·5	− 0·5
29	38·5	39·9	39·2	33·8	− 0·3	+ 0·3	+ 0·1	+ 3·0	29	38·6	40·0	40·0	36·0	− 0·2	− 0·7	− 0·3	+ 0·6
30	35·3	38·9	39·1	36·1	− 0·1	− 0·2	0·0	+ 1·2	30	32·3	38·1	39·4	39·3	+ 0·8	0·0	− 0·1	− 0·5
31	40·2	43·9	43·9	44·0	− 0·6	− 0·3	+ 0·1	0·0	31	44·2	46·2	43·3	40·1	− 0·5	− 0·7	− 0·4	+ 0·7
Means	50·7	52·4	52·3	49·9	− 0·9	− 0·4	− 0·4	+ 0·3	Means	38·3	40·3	40·4	39·0	0·0	− 0·4	0·0	+ 0·1

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 1909.

(The readings of the maximum and minimum thermometers apply to the twenty-four hours ending at 21h.)
[Until the end of April observations of the maximum and minimum thermometers only were made on Sundays, Good Friday, and Easter Monday.]

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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	47·4	41·0	42·9	45·0	46·5	46·6	+0·2	+0·9	+0·3	−0·1	−0·5	+0·2	42·9	44·6	46·1	45·1	+ 0·3	− 0·2	− 0·1	+ 0·3
2	48·3	45·1	46·2	47·7	48·1	47·2	+0·1	+0·5	0·0	+0·1	0·0	+0·1	45·1	46·1	46·3	46·1	+ 0·1	+ 0·2	− 0·2	+ 0·1
3	47·2	44·9	...	...	...	...	−0·3	+0·7	...	...	...	...	...	...	...	...	...	...	...	...
4	45·7	42·3	43·1	45·2	45·4	42·5	−0·3	+0·2	+0·1	−0·4	−0·7	+0·1	43·1	44·9	44·2	41·1	+ 0·3	0·0	0·0	+ 0·1
5	43·1	33·1	33·2	36·1	36·5	35·7	+0·7	+0·6	+0·1	−0·2	−0·1	+0·1	33·1	34·8	35·1	34·3	+ 0·1	− 0·2	0·0	0·0
6	44·6	35·2	39·9	42·8	43·7	43·5	+0·1	+0·8	+0·2	+0·1	+0·3	0·0	38·4	42·1	42·1	42·4	− 0·2	− 0·1	+ 0·3	− 0·2
7	45·1	37·1	41·1	43·9	43·3	43·2	−0·2	+0·6	0·0	+0·3	+0·3	+0·2	39·1	40·3	39·1	40·8	+ 0·2	0·0	+ 0·2	0·0
8	43·9	36·2	38·0	40·1	41·4	37·8	−0·1	+0·3	+0·5	0·0	0·0	+0·1	35·4	36·9	36·2	35·3	+ 0·2	+ 0·1	+ 0·1	0·0
9	40·1	35·0	36·1	39·8	39·5	39·0	−0·7	+0·4	0·0	0·0	+0·3	+0·2	33·9	35·2	36·0	37·6	+ 0·3	+ 0·2	+ 0·5	+ 0·3
10	47·6	37·6	...	...	...	...	−0·4	+0·5	...	...	...	...	...	...	...	...	...	...	...	...
11	50·0	44·0	47·8	49·5	48·9	44·0	−0·4	+0·4	+0·2	0·0	+0·3	+0·4	46·8	47·8	44·5	41·6	0·0	+ 0·1	+ 0·2	+ 0·4
12	45·8	37·1	41·1	43·9	42·9	37·1	+0·5	+0·6	+0·1	−0·4	0·0	+0·6	38·0	39·0	38·0	34·5	− 0·1	− 0·1	+ 0·1	+ 0·4
13	46·9	34·6	36·2	39·5	41·9	46·9	−0·1	+0·5	−0·2	−0·1	+0·1	+0·2	35·9	39·1	40·3	43·2	0·0	+ 0·2	+ 0·2	− 0·1
14	47·3	40·1	42·0	46·0	45·9	46·9	+0·1	+0·6	+0·2	+0·2	+0·2	+0·3	38·0	40·6	41·6	46·1	+ 0·2	+ 0·1	+ 0·2	+ 0·3
15	50·6	39·3	39·5	43·0	44·8	39·3	+0·2	+0·7	+0·2	+0·4	+1·2	+0·4	36·2	37·4	38·1	37·3	+ 0·3	+ 0·4	+ 0·5	+ 0·3
16	41·6	36·6	36·9	39·0	40·6	37·9	+0·4	+0·2	+0·2	+0·6	+0·5	+0·3	34·1	35·3	36·3	35·1	+ 0·2	+ 0·5	+ 0·4	+ 0·3
17	49·8	35·5	...	...	...	...	+0·1	+0·5	...	...	...	...	...	...	...	...	...	...	...	...
18	49·1	45·3	45·9	47·2	46·7	47·1	+0·1	+0·2	+0·3	0·0	+0·3	0·0	42·8	43·4	43·1	44·1	+ 0·2	− 0·4	+ 0·1	+ 0·2
19	47·6	38·1	41·0	42·8	42·7	38·3	+0·4	+1·3	0·0	−0·1	+0·1	+0·9	39·6	40·1	39·9	35·2	0·0	+ 0·2	+ 0·1	+ 0·6
20	40·8	30·0	34·2	39·3	40·3	34·5	−0·2	+1·0	−0·3	+0·2	0·0	+0·7	33·3	36·9	38·0	34·1	+ 0·6	+ 0·1	+ 0·2	+ 0·4
21	41·3	32·1	33·2	38·0	40·9	38·0	−0·5	+0·1	−0·1	−0·5	+0·1	+0·3	33·1	36·8	38·1	36·2	− 0·1	− 0·1	+ 0·1	+ 0·2
22	38·0	33·1	35·0	36·0	34·0	33·6	0·0	0·0	0·0	0·0	0·0	0·0	34·1	33·2	32·0	32·1	+ 0·2	0·0	+ 0·2	0·0
23	33·6	31·8	33·4	33·0	33·0	32·2	−0·5	0·0	−0·1	−0·1	+0·1	−0·5	31·1	30·2	29·5	29·3	+ 0·2	− 0·1	0·0	− 0·4
24	33·9	26·1	...	...	...	...	0·0	+1·0	...	...	...	...	...	...	...	...	...	...	...	...
25	40·9	26·1	27·8	37·3	40·7	32·5	+0·1	+0·9	+0·1	+0·6	+1·0	0·0	27·7	36·3	37·7	32·0	+ 0·2	+ 0·3	+ 0·8	+ 0·1
26	40·7	29·6	33·0	38·4	40·3	31·4	+0·1	+0·3	−0·4	0·0	+0·8	0·0	32·8	37·0	37·7	31·1	+ 0·4	+ 0·3	+ 0·8	− 0·1
27	32·5	26·1	28·3	29·1	29·4	27·2	+0·6	−0·1	−0·3	−0·4	0·0	−0·2	28·1	29·0	29·2	27·1	− 0·2	− 0·4	+ 0·1	− 0·1
28	29·8	24·1	26·7	28·3	29·3	24·1	−0·4	+0·1	−0·2	−0·3	+0·1	+0·1	26·6	28·2	29·2	24·1	− 0·3	− 0·4	+ 0·1	+ 0·1
29	45·1	20·8	29·7	40·0	44·0	39·7	−0·4	0·0	+0·2	−0·7	−0·2	+0·5	29·4	39·2	42·4	39·0	+ 0·3	− 0·1	+ 0·2	+ 0·4
30	39·7	32·1	37·0	36·8	35·2	32·2	+0·5	+1·0	+0·1	+0·1	−0·2	+0·6	33·1	31·9	30·6	28·7	+ 0·2	+ 0·1	+ 0·5	+ 0·8
31	37·7	30·1	...	...	...	...	−0·3	+0·9	...	...	...	...	...	...	...	...	...	...	...	...
Means	43·1	34·8	37·3	40·3	41·0	38·4	0·0	+0·5	0·0	0·0	+0·2	+0·2	35·8	37·9	38·1	36·7	+ 0·1	0·0	+ 0·2	+ 0·2

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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	43·6	35·2	41·2	43·1	42·2	37·9	−0·3	+0·1	+0·1	0·0	−0·2	+0·3	39·4	40·1	38·3	35·2	− 0·4	+ 0·3	− 0·1	+ 0·2
2	44·8	31·6	34·9	40·0	44·3	44·4	−0·4	+0·6	+0·3	+0·1	−0·1	0·0	33·1	37·5	41·1	41·9	+ 0·3	+ 0·1	+ 0·3	+ 0·1
3	54·2	44·3	50·6	53·0	53·3	52·1	0·0	+0·2	0·0	−0·1	−0·1	−0·3	46·9	48·6	49·1	48·7	+ 0·1	− 0·1	− 0·1	− 0·1
4	55·9	51·1	52·0	53·4	53·9	51·5	−0·2	+0·4	+0·2	−0·2	−0·1	+0·1	48·4	49·3	49·3	47·9	− 0·3	− 0·3	− 0·3	+ 0·1
5	51·7	42·0	46·8	45·8	46·8	42·0	−0·1	+0·9	+0·4	0·0	+0·2	+0·4	44·3	40·9	40·3	39·0	0·0	− 0·2	0·0	+ 0·3
6	44·9	32·6	38·2	42·9	44·4	32·6	−1·0	+0·9	+0·1	+0·1	0·0	+0·9	36·8	39·1	39·1	31·9	+ 0·1	+ 0·2	+ 0·1	+ 0·8
7	44·6	27·1	...	...	...	...	+0·5	+1·0	...	...	...	...	...	...	...	...	...	...	...	...
8	39·6	29·1	32·6	37·6	38·0	32·4	−0·4	+0·4	0·0	0·0	+0·4	+0·2	31·6	34·5	35·0	30·4	+ 0·1	− 0·2	+ 0·3	+ 0·3
9	40·7	31·2	35·7	40·0	38·8	40·0	−0·1	+0·9	+0·2	−0·4	+0·1	+0·3	33·1	36·3	37·5	38·3	+ 0·3	− 0·5	− 0·1	+ 0·1
10	41·1	33·9	34·2	38·0	39·7	36·7	+0·3	+0·1	−0·1	−0·1	+0·1	+0·1	33·6	36·4	36·8	35·9	− 0·1	0·0	+ 0·2	+ 0·2
11	39·8	33·4	37·0	38·7	39·3	33·9	−0·6	+0·2	0·0	+0·1	0·0	+0·3	36·0	37·1	36·1	33·2	+ 0·2	+ 0·1	+ 0·3	− 0·1
12	36·8	30·3	31·3	35·1	35·8	30·3	0·0	0·0	−0·1	+0·3	+0·4	−0·4	28·7	31·5	31·5	28·4	+ 0·6	+ 0·7	+ 0·6	− 0·2
13	37·1	28·6	32·9	35·0	37·0	34·9	−0·2	+0·3	+0·1	−0·1	+0·4	+0·3	30·1	31·6	33·3	33·0	0·0	− 0·1	+ 0·3	+ 0·4
14	40·6	26·1	...	...	...	...	−0·3	+1·1	...	...	...	...	...	...	...	...	...	...	...	...
15	48·6	38·9	43·2	47·7	47·8	39·9	−0·2	+0·7	0·0	0·0	+0·1	+0·2	42·1	42·7	41·5	36·6	− 0·1	+ 0·1	− 0·2	+ 0·3
16	41·0	32·2	34·3	39·9	40·3	39·2	−0·5	0·0	−0·1	+0·3	−0·2	+0·3	32·1	35·0	34·9	34·7	+ 0·1	+ 0·2	0·0	+ 0·1
17	45·9	32·0	33·5	42·9	44·9	32·0	+0·4	+0·9	0·0	+0·3	+0·9	+0·7	32·1	38·3	39·1	30·9	+ 0·1	+ 0·2	+ 0·5	+ 0·7
18	46·3	30·1	39·8	45·9	43·5	33·7	−0·1	+1·8	+1·7	+1·2	+0·5	+0·6	37·1	39·9	37·8	32·0	+ 0·7	+ 0·4	+ 0·2	+ 0·4
19	48·1	28·3	33·8	41·9	48·1	32·1	+0·7	+0·9	+1·1	+1·1	+1·2	+0·7	31·3	36·6	39·0	31·2	+ 0·5	+ 0·3	+ 0·4	− 0·1
20	50·6	28·5	37·4	48·0	50·6	32·8	+0·6	+2·1	+1·9	+2·0	+1·8	+0·2	34·3	40·1	40·3	31·1	+ 1·0	+ 0·5	+ 0·5	− 0·5
21	52·9	29·6	...	...	...	...	+0·8	+1·4	...	...	...	...	...	...	...	...	...	...	...	...
22	46·7	26·1	30·2	40·0	46·6	31·3	−0·2	+0·5	−0·4	+0·6	+0·9	+0·7	30·2	38·1	36·0	30·3	− 0·4	0·0	+ 0·6	+ 1·3
23	41·0	20·0	24·9	31·1	38·0	32·9	−0·1	+0·6	+0·3	−0·5	+0·6	−0·1	24·9	30·2	35·3	31·8	+ 0·3	+ 0·1	+ 0·3	0·0
24	39·4	28·3	29·3	37·0	34·5	31·4	−0·5	0·0	−0·3	+0·1	+0·1	0·0	28·6	33·1	30·3	28·6	− 0·3	− 0·1	+ 0·1	0·0
25	34·8	30·8	34·2	34·1	33·8	30·8	−0·7	+0·2	−0·1	−0·2	+0·2	+0·2	31·7	31·7	31·8	29·0	+ 0·1	+ 0·4	0·0	+ 0·1
26	35·1	30·2	33·1	35·0	34·0	30·2	−0·7	+0·1	0·0	+0·1	+0·3	−0·1	31·2	32·1	32·2	29·2	+ 0·3	− 0·2	+ 0·1	− 0·1
27	34·8	28·9	31·9	33·9	34·0	32·0	−0·3	0·0	−0·4	0·0	+0·1	−0·1	31·1	32·1	32·9	32·0	− 0·1	− 0·2	+ 0·1	+ 0·1
28	34·7	29·5	...	...	...	...	+0·2	+0·1	...	...	...	...	...	...	...	...	...	...	...	...
Means	43·4	31·8	36·4	40·8	42·1	36·1	−0·1	+0·6	+0·2	+0·2	+0·3	+0·2	34·5	37·2	37·4	34·2	+ 0·1	+ 0·1	+ 0·2	+ 0·2

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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	33·5	27·1	29·9	32·1	33·0	30·2	0·0	0·0	−0·2	−0·5	+0·2	−0·4	29·7	30·8	32·1	30·1	0·0	− 0·3	− 0·2	− 0·4
2	36·6	17·0	26·6	34·0	35·8	30·0	−1·7	+0·2	0·0	+0·2	+0·2	+0·2	26·6	31·9	31·9	28·3	0·0	+ 0·1	− 0·1	0·0
3	35·6	27·7	27·9	33·5	31·2	31·0	−2·8	−0·2	0·0	−1·3	−0·2	+0·1	27·6	32·0	30·9	30·5	−0·2	− 0·7	0·0	0·0
4	34·5	23·1	30·6	33·1	33·9	23·3	−0·5	+1·0	−0·3	−0·4	−0·7	+0·9	28·9	30·0	30·2	22·9	−0·4	− 0·5	− 0·4	+ 0·8
5	40·6	14·6	23·7	39·0	39·0	28·1	−1·1	+1·0	+0·3	+1·9	+0·4	+0·3	23·1	32·9	33·0	26·3	0·0	− 0·1	− 0·1	+ 0·5
6	37·9	28·1	34·4	33·3	37·1	37·4	+0·1	+0·6	−0·1	−0·3	−0·5	−0·1	34·0	33·0	36·1	36·3	+0·2	− 0·1	+ 0·2	+ 0·1
7	44·1	33·9	...	...	...	...	+0·1	+0·1	...	...	...	...	...	...	...	...	...	...	...	...
8	48·8	32·0	41·0	47·2	48·8	35·9	−0·4	+1·8	+1·3	+1·2	+0·7	+0·1	39·1	42·2	41·3	34·4	+ 0·6	+ 0·3	+ 0·1	+ 0·3
9	38·6	33·6	34·2	36·5	38·2	34·9	−0·4	+0·2	−0·3	−0·3	+0·2	+0·3	34·0	35·8	36·4	34·1	+ 0·2	− 0·1	+ 0·1	+ 0·2
10	40·8	34·9	37·9	38·0	40·2	36·3	−0·2	+0·8	+0·2	0·0	−0·2	+0·2	36·7	36·5	38·0	35·2	+ 0·1	+ 0·2	+ 0·3	+ 0·3
11	36·6	34·0	34·6	35·0	35·0	34·0	−0·2	+0·8	0·0	+0·3	+0·2	+0·1	34·1	34·2	34·2	33·2	+ 0·2	+ 0·1	+ 0·2	+ 0·2
12	37·6	33·7	33·7	36·2	36·2	37·5	+0·1	+0·1	0·0	−0·1	−0·2	+0·1	33·2	34·3	33·4	35·1	− 0·1	+ 0·1	+ 0·2	+ 0·4
13	41·0	33·1	35·2	38·5	39·5	38·2	−0·9	0·0	−0·4	−0·1	−0·1	+1·1	32·5	34·2	35·3	35·0	− 0·1	+ 0·2	+ 0·2	+ 0·7
14	39·1	32·6	...	...	...	...	+1·7	+0·3	...	...	...	...	...	...	...	...	...	...	...	...
15	35·5	29·3	32·0	35·0	31·9	32·0	−0·2	0·0	0·0	+0·2	−0·5	+0·2	29·8	31·9	31·6	31·2	+ 0·1	+ 0·1	+ 0·1	+ 0·2
16	38·9	28·1	31·8	38·8	38·1	32·9	−0·2	+0·3	−0·2	−0·1	−0·2	−0·2	30·6	34·1	33·8	30·5	+ 0·2	− 0·2	+ 0·5	− 0·1
17	45·5	24·1	35·0	43·5	43·1	37·1	+0·2	+1·0	+0·7	+0·9	−0·4	+0·1	32·1	37·0	36·9	36·0	+ 0·1	+ 0·4	0·0	+ 0·4
18	49·0	36·6	42·1	47·0	43·0	43·2	−0·9	+0·9	−0·5	−0·5	−0·1	+0·1	40·1	42·1	40·9	42·1	− 0·6	− 0·2	+ 0·1	+ 0·3
19	55·5	42·7	46·1	49·4	53·7	45·7	−1·5	+0·1	−0·5	−0·5	0·0	+0·3	45·2	46·7	48·4	44·3	− 0·3	− 0·2	− 0·1	+ 0·3
20	53·7	43·1	47·6	51·1	52·4	46·0	−0·7	+1·0	−0·1	−0·8	−0·3	+0·3	46·4	48·4	49·1	45·1	− 0·2	− 0·7	− 0·1	+ 0·2
21	50·7	39·4	...	...	...	...	−0·3	+0·6	...	...	...	...	...	...	...	...	...	...	...	...
22	51·5	42·4	46·0	50·0	48·0	44·8	−0·6	+0·4	−0·8	−0·4	−0·3	+0·2	44·3	46·6	46·0	43·9	− 0·9	− 0·8	0·0	+ 0·3
23	49·0	42·8	44·5	46·8	47·0	43·3	−1·2	+0·5	−0·2	0·0	0·0	−0·1	43·6	44·2	45·1	42·8	− 0·1	− 0·1	− 0·1	+ 0·3
24	50·1	40·0	46·1	49·1	48·8	49·8	−0·9	+1·0	−0·4	−0·3	−0·1	+0·1	45·1	48·1	48·1	48·6	− 0·1	− 0·1	+ 0·1	0·0
25	52·8	44·0	49·0	51·2	51·2	44·0	−1·2	+0·2	+0·1	−0·4	−0·2	+0·2	44·3	46·3	45·9	40·2	+ 0·5	− 0·4	+ 0·1	+ 0·3
26	47·6	39·1	40·8	45·9	45·0	42·1	−0·7	+0·6	+0·1	0·0	0·0	−0·4	37·1	39·7	39·2	38·2	+ 0·3	+ 0·1	+ 0·3	+ 0·1
27	51·6	32·9	42·0	49·5	50·0	41·0	−0·7	+0·8	+0·6	+0·9	−0·6	+0·4	38·1	41·1	42·1	38·2	+ 0·3	+ 0·9	− 0·4	+ 0·3
28	52·4	39·3	...	...	...	...	−0·8	+0·4	...	...	...	...	...	...	...	...	...	...	...	...
29	60·6	47·1	53·0	58·1	55·9	49·1	−1·5	0·0	−0·1	−1·1	−0·5	+0·3	50·0	52·1	51·6	48·1	− 0·1	− 0·2	− 0·9	+ 0·2
30	50·5	45·9	48·7	47·8	49·0	47·8	−0·4	−0·1	−0·4	−0·1	−0·4	+0·2	46·5	46·1	47·7	44·9	− 0·3	0·0	− 0·1	+ 0·3
31	51·6	41·1	49·9	49·5	49·1	46·8	−1·5	+0·9	+0·1	−0·6	−0·5	+0·2	46·1	46·1	48·0	43·4	− 0·3	− 0·7	− 0·1	+ 0·1
Means	44·9	34·3	38·7	42·6	42·7	38·6	−0·6	+0·5	0·0	−0·1	−0·2	+0·2	37·0	39·2	39·5	37·0	0·0	− 0·1	0·0	+ 0·2

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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	47·1	38·2	41·1	42·9	46·1	38·2	+0·2	+0·1	−0·3	+0·1	−0·1	−0·2	40·0	39·1	39·3	35·0	+ 0·2	+ 0·3	0·0	+ 0·4
2	47·8	29·9	42·8	45·2	45·7	36·9	−1·3	+0·9	+0·5	+0·3	0·0	+0·1	37·2	39·1	39·3	34·1	+ 0·3	+ 0·4	+ 0·1	+ 0·1
3	50·6	31·2	42·1	47·7	50·6	36·3	−0·3	+1·1	−1·2	−0·3	+0·1	+0·4	38·1	41·1	42·1	34·0	− 1·2	− 0·7	+ 0·1	+ 0·4
4	51·6	32·9	...	...	...	...	−1·7	+1·5	...	...	...	...	...	...	...	...	...	...	...	...
5	50·6	34·1	43·9	48·0	47·7	39·7	−0·6	+0·6	+0·3	−0·3	+0·1	+0·1	39·1	40·9	40·6	37·1	+ 0·1	+ 0·3	+ 0·1	+ 0·3
6	56·6	34·6	48·3	55·7	55·9	42·0	−0·6	+0·7	+0·7	+0·3	−0·7	+0·2	43·8	46·0	45·1	38·1	+ 0·3	− 0·1	− 0·2	+ 0·3
7	59·8	34·0	49·1	58·2	59·1	43·2	−1·2	+1·0	+0·7	−0·4	+0·4	+0·4	44·3	49·1	46·0	38·3	+ 0·5	+ 0·3	+ 0·5	+ 0·5
8	63·4	33·9	49·9	61·7	62·0	45·0	−0·6	+0·8	+0·3	+0·2	+0·4	+0·4	43·4	49·3	50·2	37·0	− 0·1	− 0·3	+ 0·4	+ 1·1
9	69·2	31·3	...	...	...	...	+0·2	+1·2	...	...	...	...	...	...	...	...	...	...	...	...
10	62·2	38·6	53·5	61·0	61·0	47·0	−0·8	+0·5	+1·6	+0·2	+0·4	+0·3	47·1	49·2	52·0	43·2	+ 0·6	+ 0·2	+ 0·2	+ 0·8
11	70·5	41·1	...	...	...	...	−0·8	+2·0	...	...	...	...	...	...	...	...	...	...	...	...
12	55·3	42·1	...	...	...	...	+0·4	+0·4	...	...	...	...	...	...	...	...	...	...	...	...
13	55·1	44·1	50·2	53·7	51·8	51·0	−2·1	+0·4	−0·3	−0·2	−0·2	+0·2	47·4	49·9	50·6	48·3	− 0·2	0·0	− 0·2	+ 0·3
14	59·2	47·0	49·0	53·5	58·0	50·3	−1·8	+0·7	+0·4	−0·5	−0·7	+0·7	47·9	47·5	49·5	46·6	+ 0·1	− 0·3	− 0·4	+ 0·8
15	62·5	36·6	54·9	58·2	60·0	48·8	−2·9	+1·4	+0·6	−0·4	−1·5	+1·2	47·1	48·6	50·0	44·9	+ 0·4	+ 0·6	− 1·0	+ 1·0
16	62·8	41·1	54·9	56·2	60·8	51·0	−2·2	+1·1	−0·4	−0·8	−0·3	+0·4	48·0	48·8	53·0	49·4	+ 0·2	− 0·1	+ 0·2	+ 0·6
17	61·9	45·1	53·1	59·0	60·5	52·5	−2·2	+1·0	−0·4	+0·1	−0·8	+0·1	51·3	52·3	53·0	49·8	− 0·2	+ 0·1	0·0	+ 0·6
18	62·8	50·1	...	...	...	...	−2·7	+0·4	...	...	...	...	...	...	...	...	...	...	...	...
19	67·0	38·1	53·8	63·9	66·5	53·0	−1·7	+0·5	−0·8	−1·5	−0·1	−0·2	50·1	54·5	54·8	51·8	− 0·7	− 0·9	+ 0·1	+ 0·1
20	59·5	47·1	53·3	58·3	56·8	49·4	−2·2	+0·6	−0·4	−0·1	+0·1	−0·1	46·2	48·2	46·2	42·2	− 0·1	+ 0·4	+ 0·3	− 0·2
21	58·3	36·1	53·6	57·5	56·4	44·0	−2·5	+1·7	−0·2	+0·5	−0·3	+0·4	46·7	49·2	47·4	43·1	− 0·2	− 0·4	− 0·3	+ 0·4
22	62·5	41·0	55·0	60·0	59·4	50·0	−1·5	+0·9	+0·2	−1·1	−1·1	−0·1	50·2	50·6	50·5	49·3	+ 0·2	− 1·2	− 1·2	0·0
23	60·4	47·6	53·7	57·2	59·9	47·8	−2·6	+0·5	−0·1	−1·0	−1·3	+0·6	48·9	50·3	51·1	47·0	+ 0·1	− 0·9	− 0·8	+ 0·8
24	62·4	47·1	55·9	60·3	56·8	49·2	−1·6	+0·9	−0·1	−1·0	−0·8	+0·3	53·5	54·2	50·2	46·7	0·0	− 0·6	− 0·6	+ 0·4
25	59·4	43·2	...	...	..	...	−1·4	+0·9	...	...	...	...	...	...	...	...	...	...	...	...
26	65·7	42·9	58·5	64·0	65·0	50·0	−2·4	+1·8	0·0	+0·6	−0·7	0·0	50·9	52·6	52·3	48·2	+ 0·1	+ 0·9	+ 0·2	+ 0·2
27	57·6	46·1	54·0	49·0	52·6	50·3	−1·4	+1·1	−0·4	−0·7	−1·0	+0·2	50·2	47·2	49·6	48·3	− 0·3	− 0·4	− 0·6	+ 0·2
28	60·6	42·9	52·8	57·4	58·6	48·8	−1·6	+0·6	−0·1	−0·2	−1·0	+0·1	48·5	48·4	47·4	45·3	− 0·1	+ 0·3	− 0·7	+ 0·3
29	56·9	42·5	50·6	56·9	51·6	42·8	−2·1	+0·4	+0·1	−0·7	−0·9	+0·2	44·5	48·1	46·1	41·8	+ 0·3	− 0·2	− 1·0	+ 0·1
30	52·5	39·1	43·1	46·7	51·7	42·0	−0·6	+0·2	−0·3	−0·4	−0·9	+0·4	39·7	40·1	43·1	39·1	0·0	− 0·3	− 0·1	+ 0·4
Means	59·1	40·0	50·7	55·5	56·4	46·2	−1·4	+0·9	0·0	−0·3	−0·5	+0·3	46·0	47·7	47·9	43·3	0·0	− 0·1	− 0·2	+ 0·4

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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	49·1	35·4	40·9	45·4	48·3	39·0	−1·0	+0·3	−0·5	−0·7	−1·0	+0·2	37·0	38·1	40·0	37·2	0·0	− 0·2	− 0·2	+ 0·4
2	53·4	35·2	45·3	49·9	50·1	43·3	−0·9	+0·7	−0·9	−0·7	0·0	−0·1	40·1	42·5	43·0	40·7	− 0·5	− 0·3	0·0	+ 0·5
3	56·9	37·0	53·6	53·2	56·2	44·7	−3·6	+1·8	−0·3	−0·9	−0·2	+0·4	48·1	45·9	46·5	41·9	+ 0·4	− 0·8	− 1·1	+ 0·4
4	61·7	36·4	58·0	61·7	58·3	48·0	−2·3	+1·2	−1·0	−1·2	−0·3	−0·2	47·3	48·8	46·3	43·3	− 1·5	− 1·2	+ 0·2	+ 0·2
5	60·6	42·7	55·5	58·9	58·9	51·1	−0·4	+0·8	+0·4	+0·1	0·0	−0·1	49·4	45·7	47·6	47·9	+ 0·1	− 0·1	− 0·1	+ 0·1
6	62·7	49·2	59·0	62·0	60·1	49·5	−1·3	+0·8	−0·3	−0·1	0·0	−0·1	52·1	54·2	49·5	44·9	− 0·7	+ 0·1	− 0·3	+ 0·1
7	60·9	45·1	55·8	59·0	58·8	49·0	−0·2	+0·2	+0·7	+0·1	−0·3	+0·2	47·6	49·0	46·3	42·9	− 0·2	− 0·3	− 0·6	+ 0·1
8	60·6	44·1	55·9	59·9	58·8	47·5	−1·6	+0·4	−0·2	−0·3	+0·2	+0·1	45·1	47·1	46·2	41·0	− 0·7	− 0·4	+ 0·4	+ 0·2
9	58·8	37·3	57·3	56·8	53·1	46·3	−0·5	+0·2	+0·5	0·0	+0·2	−0·1	46·8	49·1	46·6	43·1	+ 0·6	+ 0·1	0·0	+ 0·2
10	56·9	44·1	50·0	55·9	54·9	46·1	−1·2	+0·2	0·0	+0·1	−0·1	+0·1	44·7	48·0	48·1	42·2	− 0·1	− 0·7	0·0	+ 0·3
11	69·4	35·1	55·0	64·0	68·1	53·0	−1·6	+1·3	+0·6	−0·4	−0·1	+0·4	48·2	52·9	55·2	49·2	+ 0·3	− 0·6	0·0	+ 0·2
12	71·6	45·6	63·7	67·8	69·2	46·8	−2·3	+0·8	−1·1	−1·6	−0·7	+0·1	54·0	53·8	54·9	44·8	− 1·1	− 0·7	− 0·8	0·0
13	53·3	37·2	48·8	50·3	51·8	45·7	−1·1	+0·1	−0·8	−0·2	0·0	+0·2	42·1	42·1	42·8	41·6	− 0·8	+ 0·3	+ 0·2	+ 0·3
14	49·2	36·4	41·8	44·1	47·6	43·0	−2·0	−0·1	−0·6	−0·8	−0·3	+0·1	39·7	40·3	44·0	41·2	− 0·3	− 0·6	0·0	+ 0·2
15	51·6	37·5	45·2	48·4	49·6	40·7	−1·4	+1·3	0·0	0·0	+0·1	+0·1	41·3	41·6	43·2	37·6	+ 0·2	+ 0·3	+ 0·2	+ 0·3
16	54·2	34·1	51·2	51·5	54·1	46·1	−1·8	+1·0	−0·6	−1·0	−1·0	0·0	44·1	44·0	45·5	41·9	− 0·7	− 0·8	− 0·5	+ 0·3
17	52·5	43·2	46·0	45·4	49·8	46·0	−1·0	+0·1	−0·1	−0·1	0·0	+0·4	44·3	43·1	46·0	44·0	0·0	− 0·4	+ 0·2	+ 0·9
18	60·6	37·0	55·0	57·2	55·0	48·0	−1·9	+1·8	−0·2	+0·1	−1·2	+0·6	50·0	49·1	51·1	46·6	+ 1·1	+ 0·2	− 1·0	+ 0·6
19	66·9	40·1	57·2	63·5	66·1	51·6	−2·3	+1·2	−0·9	−0·7	−1·7	+0·6	49·5	53·2	54·9	46·5	− 0·6	− 0·6	− 1·1	+ 0·7
20	73·1	38·1	65·1	71·8	70·0	55·2	−1·4	+1·5	−0·6	−0·6	−0·6	+0·5	55·9	57·2	57·1	51·1	− 0·6	− 1·1	+ 0·3	+ 0·6
21	79·6	46·1	69·0	78·5	76·7	63·7	−2·2	+0·9	+0·1	+1·0	−0·9	+1·1	59·7	62·7	62·8	57·2	− 0·5	+ 0·6	− 0·1	+ 0·6
22	81·6	52·1	68·5	79·0	80·6	65·0	−2·4	+1·9	−0·5	−0·9	0·0	+0·6	60·1	63·7	64·3	60·1	+ 0·1	− 0·2	+ 0·5	+ 0·5
23	77·9	54·3	71·9	77·0	72·5	62·0	−3·3	+1·4	−0·7	−1·6	−1·5	+0·4	61·0	64·3	62·2	56·9	− 0·3	− 0·8	− 0·6	+ 0·7
24	73·1	47·3	64·0	71·0	72·0	56·9	−1·5	+1·1	−0·6	−0·5	−1·1	+0·1	54·2	58·0	59·1	50·0	− 0·4	+ 0·4	− 0·5	+ 0·7
25	59·4	51·3	53·1	55·8	58·8	53·2	−2·4	−0·1	−0·5	−0·1	−0·5	+0·2	53·1	55·3	56·1	51·2	− 0·2	− 0·4	− 0·7	+ 0·1
26	59·2	46·8	52·1	52·6	57·0	50·5	−2·2	+0·7	−0·6	−1·0	−1·6	−0·1	48·1	51·9	53·6	48·1	− 0·1	− 0·4	− 1·2	+ 0·3
27	59·6	49·1	51·9	58·7	57·3	51·0	−2·4	0·0	−0·7	−0·9	−1·3	+0·2	51·0	52·1	51·5	49·2	− 0·5	− 0·7	− 0·6	+ 0·1
28	68·0	46·9	58·5	63·8	66·2	54·7	−2·9	+0·6	−0·3	−1·8	−1·8	+0·2	51·9	54·3	55·7	50·1	− 0·1	− 1·4	− 1·1	+ 0·2
29	65·6	49·0	60·8	61·3	63·4	57·8	−2·4	+0·2	−1·2	−0·7	−0·6	+1·0	54·7	54·0	54·2	53·0	− 0·7	+ 0·2	+ 0·3	+ 0·9
30	71·2	46·8	61·3	67·0	71·2	60·4	−2·5	+0·7	−0·7	−1·9	−1·3	−0·1	55·0	58·2	60·1	57·2	− 0·1	− 0·6	− 0·7	+ 0·3
31	74·4	50·1	65·5	71·2	71·3	59·7	−1·6	+1·0	−0·7	−1·8	−1·1	+0·9	59·9	61·1	61·1	56·0	− 0·3	− 1·5	− 0·6	+ 0·9
Means	63·0	42·9	56·0	60·1	60·8	50·8	−1·8	+0·8	−0·4	−0·6	−0·6	+0·3	49·5	51·0	51·5	47·1	− 0·3	− 0·4	− 0·3	+ 0·4

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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	64·9	50·8	64·3	63·4	61·0	53·2	−0·6	+1·1	−0·5	−0·2	−0·2	−0·2	59·2	59·1	57·2	52·9	− 0·1	+ 0·3	+ 0·3	+ 0·2
2	54·2	49·0	49·6	50·0	51·7	49·0	+0·3	−0·1	−0·1	+0·2	−0·2	−0·2	49·1	49·4	49·3	47·2	+ 0·1	− 0·1	− 0·2	+ 0·3
3	53·1	47·1	51·2	53·0	51·2	48·5	−0·9	+0·2	−0·2	−0·1	−0·2	+0·4	47·1	47·9	46·8	45·3	0·0	0·0	+ 0·2	+ 0·2
4	50·5	45·4	46·0	48·0	50·0	49·8	−0·3	+0·2	0·0	−0·1	−0·3	+0·1	45·4	47·6	49·7	49·4	− 0·1	0·0	− 0·1	0·0
5	56·6	47·2	53·7	54·3	55·3	49·8	−0·5	0·0	−0·9	−0·2	+0·2	+0·2	49·7	51·0	52·1	48·6	− 0·7	+ 0·2	+ 0·2	0·0
6	50·5	43·6	45·0	48·2	50·0	47·8	−0·5	0·0	−0·8	−0·4	−0·1	+0·2	44·1	46·6	47·1	45·9	− 0·5	− 0·2	+ 0·1	+ 0·3
7	60·3	47·1	54·5	58·1	58·7	47·2	−1·7	+0·3	+0·7	+0·2	−0·1	+0·6	48·9	51·0	52·0	46·2	+ 0·1	+ 0·1	+ 0·2	+ 0·3
8	66·0	42·1	57·2	62·1	65·3	55·3	−2·0	+1·6	−0·6	−0·4	−0·3	0·0	51·7	54·5	56·1	51·3	− 0·2	+ 0·1	+ 0·4	+ 0·3
9	63·6	50·3	55·8	62·5	62·1	53·1	−0·7	+0·2	−0·8	−0·2	−0·2	+0·3	51·9	56·1	56·2	51·1	− 0·4	+ 0·1	+ 0·3	+ 0·3
10	54·8	44·0	51·9	51·2	49·3	44·0	+0·7	+0·7	+0·2	−0·4	−0·3	+0·6	50·4	49·1	48·9	43·9	0·0	− 0·1	+ 0·1	+ 0·6
11	55·2	39·7	48·4	52·2	50·2	45·5	−1·4	+1·4	−0·3	−0·6	−0·8	+0·1	45·1	47·1	47·3	44·2	+ 0·1	0·0	− 0·2	+ 0·2
12	52·4	42·1	50·1	50·5	50·0	50·0	−1·6	+0·5	−0·5	−0·9	−0·6	+0·2	47·9	49·2	49·5	47·4	− 0·1	− 0·6	− 0·6	− 0·3
13	64·4	47·1	51·4	59·0	62·9	54·2	−1·1	+0·2	−0·2	−0·8	+0·1	+0·5	48·3	53·1	54·9	52·0	− 0·5	− 0·6	+ 0·3	+ 0·8
14	66·5	46·1	59·0	66·0	65·2	54·5	−0·5	+1·0	−0·4	+0·7	0·0	+0·1	53·2	57·4	58·1	52·9	− 0·4	+ 0·6	+ 0·8	+ 0·3
15	58·4	47·9	51·0	56·0	55·1	54·0	−0·9	+2·0	−0·3	0·0	−0·3	+0·4	48·1	51·3	52·1	52·8	− 0·4	+ 0·4	+ 0·3	+ 0·4
16	64·1	49·6	54·5	59·5	62·8	56·0	−1·9	+0·3	−0·1	−0·8	0·0	−0·1	51·5	53·9	55·9	53·6	− 0·2	− 0·3	+ 1·1	+ 0·4
17	69·1	49·4	51·4	60·1	69·1	59·8	−1·1	+0·2	−0·2	−0·3	+0·4	+0·3	49·4	54·7	60·9	56·9	0·0	− 1·0	+ 1·0	+ 0·8
18	67·2	49·2	56·0	60·3	65·6	59·0	−1·7	+1·0	−0·5	−0·3	−0·4	+2·1	53·1	56·1	57·3	53·0	+ 0·1	+ 0·2	+ 0·2	0·0
19	71·2	51·3	61·0	67·0	68·8	59·2	−3·1	+1·2	−0·6	−0·6	−0·8	+0·3	57·1	59·9	60·6	58·1	+ 0·1	0·0	− 0·6	+ 0·3
20	66·6	56·6	59·0	63·6	65·2	56·6	−2·6	+0·5	+0·1	−0·7	−1·2	+0·1	56·8	59·4	59·4	54·3	+ 0·3	− 0·4	− 0·6	+ 0·3
21	69·7	54·6	62·0	69·2	67·2	59·2	−3·3	+0·5	−1·0	+0·7	−1·3	+0·1	57·1	60·4	57·9	56·0	− 0·7	+ 1·4	− 0·8	+ 0·4
22	63·4	52·2	55·9	60·3	59·5	52·3	−2·4	+0·1	−0·5	−1·4	−0·6	−0·2	53·2	54·1	51·2	49·1	− 0·3	− 0·7	− 0·6	+ 0·3
23	62·8	49·1	56·9	59·8	60·0	51·6	−2·8	+0·5	−0·5	−0·7	−0·9	+0·3	51·8	52·2	52·3	49·8	0·0	− 0·3	− 0·5	+ 0·4
24	61·7	50·2	54·8	52·8	55·7	51·8	−3·4	+0·1	−1·0	−0·7	+0·1	+0·1	52·8	50·9	53·2	50·1	− 0·9	− 0·2	+ 0·1	+ 0·2
25	54·7	51·2	52·0	53·2	52·9	51·7	−1·2	0·0	0·0	−0·4	0·0	0·0	50·4	52·1	52·0	50·4	− 0·3	− 0·4	+ 0·2	− 0·1
26	60·8	48·6	50·1	56·0	60·0	51·0	−2·2	+0·3	−0·2	−0·2	−0·6	+0·1	48·1	51·1	53·1	50·2	0·0	0·0	− 0·6	+ 0·1
27	59·1	49·2	52·7	52·9	56·1	52·1	−1·9	+0·1	−0·9	−0·3	−1·2	+0·3	50·7	50·6	53·2	50·5	− 0·5	− 0·2	− 1·1	+ 0·3
28	64·9	46·0	59·5	62·0	64·5	54·3	−2·2	+1·4	−0·3	−0·7	−0·5	+0·5	54·4	55·0	56·1	52·1	− 0·4	− 0·1	− 0·6	+ 0·4
29	63·7	51·1	55·3	56·9	59·3	55·8	−1·4	+0·8	−0·4	+0·3	−0·4	+0·2	53·2	53·3	53·9	53·1	− 0·3	− 0·2	− 0·1	+ 0·3
30	59·6	50·1	54·0	56·5	57·0	52·2	−1·4	+1·0	−0·4	−0·3	−0·6	+0·4	51·2	52·7	52·1	48·1	− 0·1	− 0·3	− 0·5	+ 0·5
Means	61·0	48·3	54·1	57·5	58·7	52·6	−1·5	+0·6	−0·4	−0·3	−0·4	+0·3	51 0	52·9	53·5	50·5	− 0·2	− 0·1	0·0	+ 0·3

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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	63·7	46·1	53·0	57·0	60·0	54·2	−1·3	+0·5	−0·8	−0·1	−0·6	+0·4	50·3	52·3	54·7	52·1	− 0·5	0·0	+ 0·1	+ 0·3
2	70·7	46·5	56·1	66·3	68·0	57·8	−2·2	+0·3	−1·0	+0·7	+0·1	+1·2	52·1	58·1	59·6	56·0	− 0·7	+ 0·5	+ 0·2	+ 0·8
3	73·0	51·9	66·0	70·9	73·0	61·1	−2·6	+1·6	−0·6	−0·6	−1·4	+0·3	58·2	60·0	62·3	58·3	− 0·3	+ 0·1	− 0·4	+ 0·3
4	69·3	59·1	62·3	68·2	66·8	59·2	−1·7	+0·5	−1·1	−1·1	−0·3	+0·3	61·5	60·3	59·8	54·1	− 0·8	− 0·5	+ 0·1	+ 0·3
5	69·5	47·1	63·0	65·0	66·3	59·0	−3·2	+1·0	−0·6	−0·6	−1·2	+0·3	56·6	57·0	57·8	53·6	− 0·7	− 0·5	− 1·3	+ 0·1
6	62·8	53·4	61·2	60·2	56·2	53·4	−3·1	+0·1	−1·2	−1·4	−0·4	−0·1	56·4	56·0	55·1	53·1	− 0·8	− 0·8	0·0	+ 0·2
7	63·7	52·1	54·5	62·1	57·0	55·3	−1·5	+0·2	−0·3	−1·3	+0·1	−1·2	52·5	55·2	52·1	53·4	− 0·3	− 0·6	+ 0·3	− 0·1
8	65·9	52·2	59·3	62·5	63·2	59·2	−1·9	+0·1	−0·4	−0·4	−0·4	0·0	54·2	56·0	57·3	54·1	− 0·5	+ 0·2	0·0	+ 0·3
9	72·0	50·1	61·2	67·3	71·0	60·0	−2·0	+0·5	−1·4	−1·6	−1·5	+0·2	55·3	58·6	60·4	57·4	− 0·5	− 1·8	− 1·5	0·0
10	61·6	54·1	57·3	57·0	57·9	54·6	−1·1	+0·5	−0·2	−0·4	+0·3	+0·3	53·4	52·7	53·7	50·7	− 0·4	− 0·2	− 0·1	+ 0·1
11	59·8	50·1	58·5	54·8	53·8	52·0	−1·2	+0·3	−0·7	−0·6	0·0	+0·4	52·4	51·3	49·3	49·9	− 0·6	− 0·5	− 0·5	+ 0·1
12	61·6	51·1	52·0	55·2	60·0	53·2	−1·4	+0·2	−0·1	−0·4	−0·1	+0·1	49·9	51·2	54·1	51·5	+ 0·1	− 0·1	0·0	0·0
13	69·8	51·1	61·2	64·8	68·3	61·0	−1·8	+1·5	−1·1	−0·5	−0·9	+0·3	56·1	59·5	62·4	59·6	− 0·8	− 0·2	− 0·6	+ 0·1
14	71·7	58·3	61·3	66·3	69·3	63·8	−1·3	+0·2	−0·6	−0·9	−1·1	+0·9	58·8	61·1	60·8	57·4	− 0·3	− 0·5	− 1·2	− 0·1
15	70·8	55·1	65·0	66·8	69·0	61·0	−2·5	+0·5	+0·3	−1·6	−0·7	+0·4	59·4	59·5	60·0	57·7	+ 0·1	− 1·4	− 1·1	0·0
16	65·4	54·1	56·4	59·8	65·0	62·0	−1·1	+0·1	−0·4	−0·3	−0·6	+0·2	55·9	59·0	62·3	60·1	− 0·1	− 0·3	− 0·6	0·0
17	74·8	61·1	64·3	67·3	73·3	65·0	−1·7	+0·2	−0·3	−0·6	−0·7	0·0	60·1	61·8	65·0	61·4	− 0·7	− 0·7	− 0·8	− 0·2
18	75·4	59·1	63·7	71·2	73·2	67·4	−2·3	+0·2	−0·3	−0·8	−0·8	0·0	59·3	64·1	63·1	62·2	− 0·5	0·0	− 0·7	− 0·1
19	71·7	58·1	64·0	68·1	70·0	59·0	−3·2	+0·8	−0·6	−0·7	−0·6	+0·2	54·7	58·1	59·1	53·2	− 0·3	− 0·2	− 0·5	− 0·1
20	74·6	49·6	62·1	69·2	74·1	62·6	−1·9	+0·8	−0·7	−0·8	−0·5	+0·6	54·3	57·3	59·4	57·1	− 0·8	− 0·8	− 1·5	+ 0·2
21	68·8	56·9	61·3	64·6	65·8	61·7	−1·5	+0·4	−0·8	−0·9	−0·9	+0·3	57·9	59·9	61·1	57·8	− 0·7	− 0·6	− 0·7	0·0
22	68·6	56·1	63·1	66·0	67·0	59·9	−2·8	+0·7	−0·6	−0·6	−0·3	+0·3	57·8	59·1	60·0	56·4	− 0·4	− 0·4	− 0·3	− 0·2
23	68·8	54·1	63·1	67·0	65·2	57·4	−3·2	+0·2	−1·2	−0·2	−1·1	−0·2	55·9	56·0	56·1	54·1	− 1·0	− 0·8	− 0·8	0·0
24	64·4	51·9	59·1	56·8	61·2	57·8	−1·6	+0·7	−0·5	−0·5	−1·0	+0·2	53·0	54·3	56·6	54·6	− 0·1	− 0·3	− 0·7	− 0·2
25	62·6	52·8	61·8	62·3	58·8	56·4	−2·2	+0·7	−0·9	−1·1	−0·3	+0·4	54·5	57·4	57·1	53·5	− 1·1	− 0·7	− 0·4	+ 0·1
26	66·7	51·9	60·7	59·6	63·9	55·8	−2·3	+0·6	−0·8	−0·8	−0·3	+0·4	54·3	54·1	54·4	51·7	− 0·5	− 0·7	− 0·6	+ 0·2
27	62·9	48·4	59·8	61·0	57·8	57·1	−2·1	+1·1	−0·7	−1·2	−0·7	−0·4	55·6	56·2	55·6	56·7	− 0·6	− 1·5	− 0·7	− 0·2
28	68·9	55·9	58·9	63·6	68·6	60·2	−1·4	+0·2	−0·7	−1·2	−1·0	+0·6	55·2	56·3	58·1	54·7	− 0·8	− 1·0	− 0·2	+ 0·3
29	69·6	54·6	61·0	63·0	69·0	60·1	−1·6	+0·5	−0·2	+0·2	−0·7	+0·1	56·7	57·3	58·5	55·8	− 0·3	− 0·3	− 0·4	+ 0·2
30	68·4	57·1	58·3	62·8	60·5	60·8	−2·6	+0·3	−0·1	−0·5	−0·5	+0·8	58·1	60·4	59·1	56·8	+ 0·1	− 0·4	+ 0·4	+ 0·5
31	73·8	57·2	67·9	68·0	72·8	62·7	−2·2	+0·2	−0·9	0·0	−0·6	+0·2	61·6	63·1	64·3	59·8	− 1·0	+ 0·1	− 0·5	+ 0·3
Means	68·1	53·5	60·6	63·7	65·4	59·1	−2·0	+0·5	−0·6	−0·7	−0·6	+0·2	55·9	57·5	58·4	55·6	− 0·5	− 0·5	− 0·5	+ 0·1

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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	67·6	57·9	62·3	65·5	61·5	59·0	−2·9	+0·4	−1·3	−0·5	−0·1	+0·6	58·4	61·1	61·1	58·9	− 1·4	− 0·9	+ 0·1	+ 0·6
2	60·8	53·4	57·9	57·8	55·0	53·4	−1·9	+0·1	−0·3	0·0	+0·3	−0·1	54·2	53·2	54·1	50·4	− 0·5	− 0·3	+ 0·6	+ 0·2
3	62·6	47·3	55·5	60·0	60·8	52·4	−2·7	+0·4	−0·5	−0·8	−1·1	+0·7	49·2	51·3	52·4	50·2	− 1·6	− 0·5	− 0·8	+ 0·4
4	73·0	49·4	62·6	68·2	72·9	60·1	−2·3	+1·1	−0·3	+0·6	−0·8	+0·5	56·9	60·8	61·7	55·9	− 0·3	+ 0·5	− 1·1	+ 0·2
5	76·1	51·1	67·3	70·0	76·1	58·1	−1·0	+1·2	+0·3	−0·6	−0·6	+0·5	60·3	62·3	65·1	56·2	+ 0·3	− 0·5	− 0·6	+ 0·1
6	76·6	51·1	69·0	75·0	76·0	59·7	−1·2	+1·0	−0·2	+0·2	−0·5	−0·1	61·9	63·1	64·1	57·1	− 0·8	− 0·5	− 0·4	0·0
7	78·9	52·6	70·2	76·2	78·2	61·2	−1·0	+1·0	−0·4	0·0	+0·3	+0·6	61·5	66·0	67·3	58·1	− 1·1	0·0	− 0·3	+ 0·2
8	76·9	53·1	70·3	76·4	76·0	62·9	−0·3	+1·1	+0·7	−0·2	−0·6	+0·2	63·5	63·9	62·5	56·4	− 0·2	− 0·4	− 1·2	0·0
9	78·8	53·1	58·8	75·0	77·5	60·0	−1·4	+0·5	−2·9	+0·2	+0·4	+0·9	56·3	65·8	67·1	59·1	− 2·5	+ 0·4	+ 0·3	+ 0·5
10	78·7	53·1	68·0	75·1	78·1	58·8	−1·0	+1·0	−0·6	−0·7	−0·5	+0·1	59·3	63·1	65·2	57·8	− 0·5	− 0·6	− 0·6	0·0
11	79·7	53·4	64·3	75·1	77·3	65·8	−1·2	+1·2	0·0	−0·5	−0·3	+1·1	60·3	66·3	69·1	63·1	− 0·2	− 0·9	0·0	+ 0·3
12	85·6	55·2	71·8	80·2	85·0	70·1	−0·6	+0·9	+0·1	−0·5	−0·1	+0·7	63·3	66·4	67·9	64·2	− 0·4	− 0·6	− 0·7	− 0·1
13	77·3	60·1	70·8	76·2	76·1	67·7	−2·7	+0·9	−0·8	−0·5	−0·8	+0·1	61·1	65·9	65·9	62·9	− 0·7	0·0	− 0·9	− 0·2
14	78·7	57·6	68·5	73·7	76·3	65·9	−2·4	+1·1	−0·4	−1·3	−1·2	+0·5	63·6	66·0	67·5	64·1	− 0·3	− 1·0	+ 0·6	0·0
15	84·6	58·8	75·2	78·5	84·2	64·4	−1·1	+1·1	−0·6	−0·2	−1·1	+1·1	68·5	69·8	72·4	62·7	− 0·6	− 0·4	− 0·8	+ 0·4
16	76·7	60·4	71·3	74·1	67·6	64·3	−2·3	+1·3	−0·4	−0·4	+0·4	0·0	65·7	66·1	66·1	62·1	− 0·3	− 0·6	− 0·3	+ 0·1
17	68·7	53·9	64·9	68·0	67·2	54·1	−3·0	+1·3	+0·3	−0·7	−0·4	+0·1	58·5	58·9	58·9	54·0	− 0·3	− 1·0	− 0·7	+ 0·1
18	69·0	54·1	64·2	63·4	67·7	59·2	−1·3	+0·1	−0·5	−1·9	−0·7	+0·3	59·4	60·5	59·8	55·1	− 0·6	− 1·3	− 0·6	+ 0·2
19	71·8	56·6	64·3	70·0	69·8	60·6	−2·2	+0·5	−0·4	−0·5	−0·6	+0·3	59·2	62·2	62·0	59·1	− 0·4	− 0·6	− 0·4	+ 0·3
20	64·6	57·9	63·1	62·3	61·9	60·0	−1·5	+0·8	−0·5	−0·3	−0·4	+0·3	61·1	60·1	60·8	58·9	− 0·2	− 0·4	− 0·2	+ 0·1
21	66·8	54·4	58·7	64·2	65·2	55·7	−1·4	+0·3	−0·9	−0·1	−1·7	+0·9	55·0	54·2	55·8	51·4	− 0·7	− 0·3	− 1·6	+ 0·3
22	63·9	47·2	58·0	61·0	60·4	49·8	−2·2	+0·5	−0·5	−1·1	−0·3	+1·1	52·2	53·2	52·4	48·4	− 0·7	− 1·4	− 0·4	+ 0·5
23	65·4	46·4	62·2	62·3	60·0	61·8	−1·7	+1·2	−0·5	−1·1	−0·3	+0·1	56·8	56·5	57·6	60·5	− 0·6	− 1·1	− 0·5	− 0·2
24	68·8	57·5	64·0	67·5	62·7	57·5	−2·7	+0·1	−0·2	−1·0	+0·1	−0·1	60·2	61·0	60·9	57·1	− 0·3	− 0·8	0·0	− 0·1
25	66·2	56·1	59·6	60·2	65·0	60·0	−3·0	+0·5	−0·3	−0·5	−0·4	+0·3	57·8	58·3	59·9	57·5	− 0·2	− 0·5	− 0·9	− 0·2
26	60·5	53·3	55·2	56·8	59·2	55·1	−1·1	+0·2	−0·3	−0·1	−0·2	+0·3	53·1	54·4	56·0	54·3	− 0·5	− 0·3	+ 0·2	+ 0·1
27	65·6	48·5	59·2	63·0	65·0	58·3	−1·5	+1·0	−0·2	−0·6	0·0	−0·1	53·5	56·9	59·0	53·7	0·0	0·0	+ 0·2	0·0
28	70·9	48·9	59·3	66·0	70·1	55·8	−1·2	+0·9	+0·5	−0·7	−0·4	+0·7	54·9	57·4	59·2	54·4	− 0·1	− 1·2	− 0·6	− 0·1
29	69·4	50·1	61·3	66·8	67·8	58·0	−2·3	+1·1	−0·1	−0·6	−0·8	+0·2	56·6	59·3	58·9	54·9	− 0·4	− 0·4	− 0·7	+ 0·1
30	62·6	53·3	56·2	58·7	60·9	53·6	−1·7	+0·2	−0·5	−0·4	−0·5	+0·4	50·6	50·9	51·1	50·2	− 0·4	0·0	0·0	+ 0·3
31	59·0	47·3	54·0	56·0	57·1	47·7	−1·0	+0·6	−0·4	−0·2	−0·2	+0·7	48·1	49·5	49·2	46·2	− 0·2	− 0·3	+ 0·2	+ 0·3
Means	71·2	53·3	63·5	67·8	69·0	59·1	−1·7	+0·8	−0·4	−0·5	−0·4	+0·4	58·1	60·1	61·0	56·6	− 0·5	− 0·5	− 0·4	+ 0·1

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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	57·4	43·2	53·5	56·3	51·6	49·1	−1·6	+0·2	−0·9	−0·7	−0·4	+0·1	48·3	49·0	49·9	46·9	− 0·8	− 0·6	− 0·2	+ 0·2
2	63·6	38·0	48·9	60·0	61·0	47·4	−1·2	+0·9	−0·7	−1·5	+0·4	+0·7	48·1	50·2	51·6	46·1	− 0·5	− 1·5	+ 0·5	+ 0·3
3	67·4	45·3	58·0	65·9	64·3	56·9	−2·5	+1·2	−0·6	+0·3	−0·7	+0·2	53·1	55·1	56·3	52·3	− 0·2	− 0·1	− 0·7	+ 0·1
4	60·4	54·6	58·1	58·9	60·0	57·3	−1·6	+0·5	−0·3	−0·4	−0·3	−0·1	54·8	55·1	56·5	57·1	− 0·1	− 0·3	− 0·3	+ 0·1
5	62·6	50·1	56·0	60·0	62·5	50·1	−1·7	+1·0	+0·3	−0·9	−1·1	+1·0	50·3	51·2	54·1	48·4	+ 0·1	− 0·7	− 0·7	+ 0·5
6	69·8	49·1	61·5	62·2	68·5	55·0	−1·2	+1·2	−0·1	−0·5	−0·6	+0·5	59·0	60·3	59·1	51·6	+ 0·1	− 0·4	− 0·7	0·0
7	60·9	50·5	57·7	58·5	57·7	52·6	−2·3	+0·6	−0·7	−0·4	−1·3	0·0	51·1	51·6	53·4	49·2	− 0·7	− 0·5	− 0·8	+ 0·1
8	54·4	42·1	52·6	49·9	53·1	50·1	−1·6	+1·5	0·0	+0·2	−0·5	+0·2	48·5	48·7	52·0	48·4	− 0·3	− 0·1	− 0·1	− 0·2
9	60·5	48·3	54·0	57·9	59·8	51·0	−1·3	+0·2	−0·4	−0·7	−0·4	+0·3	51·3	53·1	53·8	49·1	− 0·5	− 0·6	− 0·2	+ 0·2
10	59·6	46·1	51·9	58·1	59·2	57·2	−0·4	+0·7	+0·1	−0·5	−0·2	−0·2	51·1	54·4	56·6	55·7	+ 0·1	− 0·4	− 0·3	− 0·1
11	65·6	56·3	59·0	62·4	62·8	56·4	+0·2	+0·3	−0·6	−0·5	−0·1	+0·3	57·3	56·4	57·2	55·6	− 0·7	− 0·8	− 0·3	+ 0·1
12	65·6	52·1	60·9	63·3	61·0	57·9	−0·8	+0·5	0·0	−0·6	−0·6	+0·1	57·0	58·7	57·1	54·8	− 0·1	− 0·3	− 0·3	0·0
13	58·8	52·2	52·3	55·0	56·3	53·2	+0·8	+0·1	−0·3	−0·2	−0·3	−0·3	52·1	54·1	54·2	51·2	+ 0·1	− 0·2	− 0·3	+ 0·1
14	55·9	50·4	54·0	55·5	54·9	50·4	−0·6	+0·2	−0·6	−0·2	+0·1	+0·2	50·4	50·3	50·0	47·0	− 0·5	+ 0·1	+ 0·2	+ 0·4
15	62·3	45·1	54·4	59·0	59·8	53·3	−1·1	+0·8	−0·2	−1·1	+0·2	−0·1	52·3	54·3	54·3	51·1	− 0·5	− 0·6	+ 0·3	+ 0·2
16	62·4	51·6	57·0	58·4	60·8	55·7	−1·2	+0·3	−1·4	−0·3	+0·2	+0·1	55·5	55·1	56·9	55·1	− 1·3	− 0·6	− 0·1	− 0·1
17	67·7	53·6	58·6	67·3	62·0	57·0	−1·3	+0·5	−0·4	+0·2	+0·2	+0·3	58·2	61·0	59·1	55·2	− 0·2	− 0·1	− 0·1	0·0
18	63·1	52·1	54·4	60·0	61·8	52·1	−1·0	+1·0	+0·1	−0·6	−0·3	−0·6	53·0	54·7	55·6	50·5	0·0	− 0·1	− 0·2	− 0·3
19	64·6	46·1	55·0	61·2	64·8	55·7	−1·0	+1·0	−0·5	−0·7	−0·1	+1·3	52·6	56·5	58·1	53·7	− 0·3	− 0·1	− 0·3	+ 0·9
20	63·5	47·2	55·7	59·0	59·2	52·1	−0·7	+1·4	−0·3	−0·3	−0·4	0·0	53·7	56·0	54·4	50·2	− 0·1	+ 0·1	− 0·2	0·0
21	60·7	41·9	50·7	56·1	59·0	50·9	−2·0	+1·3	−0·7	−0·1	−0·1	+0·3	48·1	51·3	52·2	48·2	− 0·5	− 0·5	− 0·6	+ 0·2
22	66·9	47·6	59·2	66·5	65·0	57·8	−1·1	+1·4	−0·4	−0·2	+0·3	+0·2	55·9	61·1	60·1	57·1	− 0·3	− 0·5	− 0·1	− 0·2
23	64·0	57·1	57·5	60·8	62·3	57·5	−0·7	+0·5	+0·1	−0·6	−0·3	+0·5	57·1	59·9	61·5	56·9	− 0·2	− 0·5	− 0·3	+ 0·3
24	67·5	53·3	62·8	67·0	63·0	57·1	−1·1	+1·0	+0·1	+0·2	−0·6	−0·8	58·4	59·1	57·0	56·1	− 0·2	− 0·1	− 0·8	+ 0·1
25	62·6	54·5	58·5	62·5	60·0	55·1	−1·6	+0·8	−0·4	−0·1	+0·2	+0·5	56·9	58·8	58·1	54·3	− 0·3	0·0	0·0	+ 0·2
26	61·4	50·0	54·0	57·1	55·8	50·0	−1·4	+0·4	−0·4	−0·5	−0·3	+0·2	52·6	54·0	54·6	47·6	− 0·2	− 0·2	− 0·2	0·0
27	57·4	46·0	51·7	54·6	55·3	47·0	−0·8	+1·0	−0·3	+0·1	−0·1	+0·5	49·1	49·1	50·6	46·2	− 0·4	+ 0·1	+ 0·1	+ 0·3
28	53·6	44·1	50·3	51·9	53·6	51·9	−0·3	+1·0	−0·2	−0·2	−0·4	+0·1	49·2	51·2	53·1	51·5	0·0	− 0·6	− 0·1	− 0·2
29	55·8	51·9	53·2	55·4	55·0	53·1	−1·2	+0·6	−0·4	−0·7	+0·2	+0·3	52·9	54·3	54·1	52·5	− 0·2	− 0·5	− 0·4	0·0
30	55·6	48·3	52·0	54·4	54·8	51·0	−1·2	+0·2	+0·1	−0·7	−0·3	+0·9	51·3	52·4	52·6	50·4	− 0·5	− 0·6	− 0·3	+ 0·4
Means	61·7	49·0	55·4	59·2	59·5	53·4	−1·1	+0·7	−0·3	−0·4	−0·3	+0·2	53·0	54·6	55·1	51·7	− 0·3	− 0·4	− 0·3	+ 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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	64·1	49·4	58·0	64·1	61·8	57·0	−1·9	+1·2	−0·5	−0·5	+0·2	+0·5	57·1	60·4	59·2	56·7	− 0·4	− 0·1	0·0	+ 0·4
2	64·2	52·5	54·7	58·3	64·0	58·3	−1·6	+1·1	−0·3	−0·4	+0·1	+0·1	54·4	56·1	59·1	57·2	− 0·4	− 0·3	+ 0·2	− 0·1
3	64·9	57·8	58·4	62·3	64·3	62·0	−1·3	+0·6	−0·2	−1·3	−0·5	+0·3	57·9	62·0	62·1	60·1	0·0	− 0·6	− 0·5	+ 0·2
4	66·6	57·5	63·0	64·6	62·7	57·5	−1·4	+0·2	−0·6	−0·7	0·0	+0·1	59·1	59·4	59·6	57·1	− 0·4	− 0·5	− 0·1	+ 0·1
5	65·5	53·2	58·7	61·2	64·1	53·2	−0·5	+0·7	−0·5	−0·2	−0·5	+0·7	57·3	58·3	58·8	50·0	− 0·5	− 0·1	− 0·2	+ 0·8
6	60·9	43·0	51·7	59·7	60·9	49·9	−1·1	+0·8	+1·0	+1·1	+0·2	+0·4	47·2	51·8	52·6	48·1	+ 0·5	+ 0·9	− 0·2	+ 0·3
7	61·0	44·0	58·5	59·8	58·1	56·3	−1·0	+1·8	+0·2	−0·3	−0·4	0·0	53·8	52·7	52·9	56·0	− 0·2	− 0·2	+ 0·1	+ 0·2
8	63·8	51·7	58·0	62·2	62·5	51·7	−1·2	+0·5	−0·5	+0·5	+0·1	+0·3	54·2	56·9	57·1	47·5	− 0·5	+ 0·7	+ 0·3	+ 0·6
9	63·3	40·6	53·0	60·0	59·0	49·4	+0·4	+1·4	+1·4	+0·7	0·0	+0·2	48·6	51·5	52·1	47·3	+ 0·8	+ 0·7	− 0·2	+ 0·1
10	63·6	49·1	58·1	61·0	59·2	55·8	−0·6	+0·3	−0·6	−0·6	−0·3	+0·2	55·1	56·4	55·3	55·0	− 0·6	− 0·6	− 0·3	+ 0·2
11	65·6	55·3	58·2	62·3	63·0	57·0	−0·3	+0·2	−0·5	−0·4	−0·1	+0·3	56·1	56·2	55·6	56·1	− 0·2	− 0·7	− 0·2	+ 0·2
12	63·5	47·7	58·9	61·2	60·2	55·2	−0·4	+1·5	+1·4	−0·2	−0·3	+0·2	54·1	55·1	54·3	53·4	+ 0·2	+ 0·1	− 0·4	+ 0·2
13	61·5	50·3	60·3	54·9	59·2	50·3	−0·8	+0·6	−0·3	0·0	−0·2	+0·6	56·6	52·4	54·4	48·6	− 0·2	− 0·2	− 0·2	+ 0·6
14	61·7	40·9	54·8	60·0	60·2	53·2	−0·4	+1·2	+1·0	−0·3	−0·3	+0·1	50·7	53·2	52·3	50·9	+ 0·7	+ 0·1	− 0·5	+ 0·1
15	60·6	53·2	57·6	58·0	60·1	58·7	−0·2	+0·6	−0·3	−0·3	−0·4	+0·1	56·1	56·6	56·1	57·0	− 0·1	− 0·2	− 0·1	+ 0·2
16	62·7	58·1	60·0	60·0	60·9	59·8	−1·3	+0·4	+0·1	−0·3	+0·2	+0·2	58·9	59·3	59·4	59·1	− 0·2	− 0·5	− 0·3	+ 0·1
17	62·6	53·2	60·0	60·7	60·6	53·2	−0·4	+0·5	−0·1	−0·8	0·0	+0·5	59·1	60·1	56·1	52·1	− 0·1	− 0·7	− 0·2	+ 0·1
18	60·6	52·9	58·2	59·0	60·0	54·0	−1·2	+0·8	−0·3	−0·1	−0·4	+0·9	56·6	56·2	57·1	53·6	− 0·2	− 0·6	+ 0·1	+ 0·8
19	63·7	52·0	55·4	59·7	62·0	52·9	−0·3	+1·7	0·0	0·0	+0·1	+0·4	54·3	56·2	58·2	51·4	− 0·2	− 0·4	− 0·4	+ 0·2
20	59·2	52·6	57·9	58·2	59·0	57·8	−0·8	+0·5	+0·1	−0·4	−0·1	+0·1	55·3	57·1	57·6	57·1	− 0·4	− 0·2	− 0·2	+ 0·1
21	61·0	49·3	55·2	57·1	55·2	49·4	−1·0	+0·7	+0·7	0·0	0·0	+0·5	52·1	51·2	50·1	47·2	+ 0·3	0·0	+ 0·1	+ 0·4
22	59·7	46·1	52·0	57·9	57·2	56·0	−1·1	+0·7	+0·3	0·0	−0·1	+0·1	49·5	53·2	52·9	54·0	+ 0·1	− 0·4	0·0	− 0·1
23	62·5	55·1	60·9	62·0	58·9	56·2	−0·7	+0·1	+0·3	−0·3	+0·2	−0·3	57·4	57·2	56·8	53·6	− 0·3	− 0·6	0·0	− 0·2
24	56·5	43·1	50·5	52·8	53·0	43·4	0·0	+0·8	−0·1	−0·1	−0·1	+0·3	47·1	46·9	46·0	41·0	+ 0·3	+ 0·1	+ 0·2	+ 0·3
25	50·7	37·0	43·3	48·4	50·0	37·0	−0·7	+0·7	−0·3	−0·4	+0·3	+0·6	40·1	42·8	42·9	36·1	− 0·5	− 0·3	+ 0·4	+ 0·3
26	46·2	32·4	44·0	46·1	45·4	45·9	−0·8	+1·3	0·0	−0·4	−0·2	0·0	43·1	45·1	45·0	45·2	0·0	0·0	+ 0·2	− 0·1
27	47·5	44·1	45·0	45·5	44·1	45·3	0·0	+0·3	0·0	−0·1	0·0	−0·3	44·1	44·4	43·3	44·0	0·0	− 0·2	− 0·1	+ 0·2
28	47·0	40·0	45·9	47·0	45·3	40·0	0·0	+0·4	+0·2	+0·2	−0·3	+0·4	43·5	43·1	42·6	39·1	− 0·1	+ 0·3	+ 0·3	+ 0·3
29	43·6	32·3	39·8	41·8	43·5	32·3	−0·4	+0·9	−0·2	−0·1	0·0	+0·9	38·9	39·6	39·3	31·5	+ 0·1	0·0	+ 0·2	+ 0·7
30	42·3	29·3	36·1	41·1	42·0	35·2	−0·7	+1·1	−0·5	−0·3	+0·2	−0·2	35·1	39·1	39·4	35·0	− 0·3	0·0	+ 0·3	+ 0·1
31	46·2	35·2	42·6	45·2	45·5	44·9	−0·2	+0·3	−0·1	−0·4	−0·1	+0·3	40·8	44·1	44·1	44·1	0·0	− 0·1	+ 0·3	+ 0·1
Means	58·8	47·1	53·8	56·5	56·8	51·3	−0·7	+0·8	0·0	−0·2	−0·1	+0·3	51·4	52·7	52·7	49·8	− 0·1	− 0·1	0·0	+ 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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	51·5	44·6	47·9	49·3	50·8	45·5	−0·2	+0·3	+0·2	−0·2	+0·2	+0·6	47·1	48·2	49·1	45·3	+ 0·1	− 0·1	+ 0·1	+ 0·4
2	54·8	45·0	49·0	53·8	53·3	48·7	−0·3	+0·4	+0·9	−0·1	0·0	+0·1	47·1	48·6	49·0	48·1	+ 0·7	− 0·1	+ 0·2	+ 0·3
3	53·7	48·6	51·8	53·0	53·2	50·8	−0·5	+0·3	0·0	−0·4	−0·2	+0·2	51·4	52·3	52·5	49·1	− 0·3	− 0·3	− 0·2	+ 0·1
4	51·9	46·1	48·3	51·1	51·9	49·0	−0·2	+0·7	−0·2	−0·5	−0·1	+0·3	47·8	49·2	50·1	48·8	− 0·1	− 0·4	0·0	+ 1·0
5	56·5	37·1	40·6	49·7	55·2	40·1	+1·9	−0·1	0·0	−1·6	+2·1	−0·1	40·5	48·7	48·3	39·1	− 0·1	− 0·3	+ 1·2	+ 0·3
6	59·8	35·3	43·8	58·0	56·8	38·4	+3·1	+1·1	+2·2	+3·2	+2·6	+0·5	42·6	51·1	51·0	38·3	+ 1·7	+ 2·1	+ 1·3	+ 0·4
7	46·9	35·1	43·1	45·9	46·9	41·0	−0·1	+0·3	+0·1	0·0	+0·3	+0·4	42·7	44·1	45·0	40·1	0·0	− 0·1	+ 0·2	+ 0·3
8	48·7	35·2	38·1	47·4	47·1	38·9	−0·2	+0·1	−0·5	−0·1	+0·4	+1·2	37·3	43·9	44·0	38·1	− 0·2	+ 0·2	+ 0·5	+ 0·9
9	49·1	29·3	34·0	47·2	47·6	45·0	+0·6	+0·2	+0·8	+0·8	+0·2	+0·4	33·6	42·1	43·5	42·3	+ 0·7	+ 0·8	+ 0·7	+ 0·5
10	46·8	38·9	41·5	46·2	44·8	38·9	−0·1	+1·2	+0·4	+0·1	+0·3	+1·2	39·4	42·3	42·1	38·1	+ 0·2	+ 0·3	+ 0·4	+ 1·1
11	46·3	35·2	39·8	44·9	45·9	44·6	+0·1	+1·1	+0·3	+0·3	+0·3	+0·3	36·9	39·7	43·1	42·7	+ 0·4	+ 0·5	+ 0·3	+ 0·5
12	53·6	43·9	49·3	52·2	52·1	50·9	−0·2	+0·8	−0·1	−0·4	−0·2	+0·3	46·2	48·1	48·2	47·2	+ 0·3	+ 0·2	+ 0·3	+ 0·3
13	51·2	38·5	43·0	45·3	44·5	38·5	+0·2	+0·7	+0·4	−0·3	+0·1	+0·7	39·2	41·0	40·6	36·6	+ 0·4	+ 0·3	+ 0·7	+ 0·8
14	41·2	31·1	35·0	39·0	40·8	37·0	−0·8	+1·0	0·0	−0·4	+0·4	−0·1	34·7	38·3	40·0	36·6	+ 0·1	− 0·3	+ 0·2	0·0
15	41·6	35·9	38·7	41·5	41·2	38·6	−0·4	+0·1	+0·1	−0·1	−0·1	0·0	37·2	39·4	39·7	35·7	0·0	− 0·1	+ 0·2	+ 0·5
16	40·3	33·3	35·2	38·1	39·8	37·4	+0·1	+0·2	0·0	−0·4	+0·2	+0·2	34·0	37·2	38·1	36·7	+ 0·2	− 0·1	+ 0·2	+ 0·4
17	47·6	34·8	37·1	44·2	45·5	41·0	−0·4	+0·6	+0·1	−0·2	−0·1	−0·4	35·0	40·1	41·1	39·3	+ 0·4	+ 0·3	+ 0·1	− 0·1
18	46·6	38·5	42·0	46·2	43·0	38·9	−0·4	+0·3	+0·2	+0·3	−0·1	+0·3	40·6	42·1	40·0	36·9	+ 0·3	+ 0·2	+ 0·2	+ 0·2
19	43·2	36·0	39·8	42·0	41·2	36·9	−0·3	+0·4	+0·2	+0·2	−0·1	+0·3	36·3	37·2	37·5	35·4	+ 0·2	0·0	− 0·1	+ 0·3
20	42·0	33·5	35·4	38·0	41·8	38·8	+0·5	+1·3	−0·2	+1·4	+0·3	+1·2	34·1	36·1	38·4	37·3	+ 0·2	+ 0·5	+ 0·2	+ 0·7
21	43·2	32·1	33·4	41·6	43·0	36·3	−0·3	+1·0	+0·2	0·0	+0·3	0·0	32·2	38·1	39·3	35·0	+ 0·2	+ 0·1	+ 0·2	+ 0·3
22	39·8	32·1	34·0	38·3	37·8	33·1	−0·2	+0·4	−0·1	−0·2	+0·2	+0·2	33·0	36·0	36·1	32·5	+ 0·2	+ 0·1	+ 0·3	+ 0·2
23	38·8	31·9	33·2	35·6	38·3	36·0	−0·1	+0·4	0·0	−0·2	+0·1	+0·8	32·7	34·4	37·0	34·6	+ 0·1	− 0·2	+ 0·4	+ 0·6
24	40·0	31·1	32·9	38·5	39·5	38·1	0·0	+0·4	+0·6	+0·1	+0·1	+0·4	31·7	36·1	37·1	37·1	+ 0·1	+ 0·3	+ 0·3	+ 0·4
25	42·9	27·6	39·8	42·0	42·0	29·4	−0·3	0·0	+0·4	+0·1	−0·1	0·0	38·3	39·9	39·9	29·3	+ 0·2	+ 0·1	+ 0·1	− 0·1
26	42·8	29·3	37·0	40·9	42·8	37·0	−0·1	0·0	−0·1	−0·2	+0·1	+0·6	36·4	38·5	39·2	35·4	− 0·2	+ 0·2	+ 0·3	+ 0·4
27	45·6	37·0	39·6	45·0	42·1	43·9	+0·8	+0·7	+0·2	+1·1	0·0	+0·3	37·2	40·4	39·1	42·4	+ 0·1	+ 0·3	+ 0·1	+ 0·2
28	52·5	43·4	47·1	50·9	51·0	50·0	0·0	+0·4	−0·3	+0·2	0·0	+0·2	46·1	48·1	47·5	47·6	+ 0·1	+ 0·1	− 0·1	− 0·1
29	52·6	46·1	51·2	51·2	51·0	46·1	+0·1	+0·2	−0·2	−0·1	−0·1	+0·2	50·1	50·4	50·1	45·1	0·0	− 0·2	0·0	+ 0·1
30	48·6	40·5	42·7	47·9	46·2	43·4	+0·4	+0·4	+0·4	+1·1	+0·4	+0·3	39·9	43·3	41·7	40·5	+ 0·5	+ 0·7	+ 0·3	+ 0·1
Means	47·3	36·9	40·8	45·5	45·9	41·1	+0·1	+0·5	+0·2	+0·1	+0·3	+0·4	39·4	42·5	42·9	39·7	+ 0·2	+ 0·2	+ 0·3	+ 0·4

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 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.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	47·2	39·2	42·7	43·6	46·2	45·0	+0·2	+0·5	+0·2	0·0	−0·4	+0·4	41·1	42·7	45·2	40·8	+ 0·1	− 0·1	0·0	+ 0·2
2	52·6	41·1	41·4	44·7	44·0	52·4	−0·1	+0·5	−0·1	+0·1	0·0	−0·2	39·3	41·7	43·1	51·3	− 0·1	0·0	+ 0·1	0·0
3	52·8	40·0	41·2	43·1	42·9	40·0	−0·2	+0·7	+0·2	+0·1	+0·3	+0·4	37·0	39·4	39·3	37·4	+ 0·2	− 0·1	0·0	+ 0·3
4	45·0	35·6	38·5	42·4	43·1	36·5	+0·5	+0·3	−0·1	−0·2	+0·1	+0·1	38·1	40·2	40·3	35·3	+ 0·2	0·0	+ 0·2	+ 0·2
5	45·5	31·1	33·2	43·2	40·3	38·2	+2·2	+1·2	+1·5	+1·7	+1·3	−0·1	32·2	39·4	37·4	37·3	+ 1·2	+ 1·2	+ 1·0	+ 0·1
6	42·3	34·3	36·9	42·0	40·5	37·0	+0·4	+1·0	+0·1	+1·4	+0·9	+0·3	36·4	39·6	38·4	36·1	− 0·2	+ 0·8	+ 0·6	+ 0·2
7	37·6	30·3	33·9	36·0	37·1	36·1	+0·9	+1·1	+0·1	+0·1	−0·1	+0·2	33·8	35·6	35·9	35·1	+ 0·1	0·0	+ 0·2	+ 0·1
8	40·6	32·6	33·3	39·0	39·2	33·0	+0·4	+0·6	+0·6	+0·4	+1·0	+0·4	32·1	35·3	36·0	32·3	+ 0·4	0·0	+ 0·7	+ 0·4
9	44·4	29·9	32·9	42·9	42·0	41·1	+1·4	+1·1	+1·4	+2·5	+0·9	+0·4	32·1	39·3	39·1	39·2	+ 1·2	+ 1·7	+ 0·5	+ 0·3
10	47·5	41·1	45·9	47·2	47·0	46·2	−0·4	+1·0	+0·2	−0·3	+0·3	−0·1	45·1	46·3	46·1	45·7	+ 0·2	− 0·4	+ 0·2	+ 0·1
11	47·0	41·0	46·0	46·0	44·0	41·0	+0·1	0·0	+0·1	−0·1	−0·1	−0·1	45·6	45·1	43·1	40·1	− 0·2	+ 0·1	+ 0·1	+ 0·1
12	41·4	35·1	35·4	35·9	37·1	41·2	0·0	+0·1	−0·1	0·0	−0·2	−0·2	34·8	34·3	36·1	41·1	+ 0·1	+ 0·1	+ 0·3	+ 0·2
13	42·4	39·7	42·0	42·4	42·0	39·8	−0·2	+0·1	+0·1	0·0	+0·1	+0·2	41·1	40·9	40·4	38·2	+ 0·2	+ 0·1	+ 0·2	− 0·1
14	40·5	36·1	39·3	39·5	39·4	39·1	+0·2	+0·1	−0·3	−0·1	−0·2	−0·2	38·1	37·8	38·0	37·9	+ 0·1	0·0	+ 0·2	+ 0·1
15	39·4	32·8	37·7	36·9	37·2	32·9	+0·1	0·0	+0·1	+0·3	−0·3	+0·1	35·5	35·3	35·1	31·8	+ 0·1	0·0	+ 0·2	0·0
16	38·5	32·9	34·2	36·2	38·1	38·2	−0·5	+0·3	+0·1	−0·2	+0·1	0·0	33·1	35·1	37·1	37·8	+ 0·5	+ 0·1	+ 0·2	+ 0·2
17	41·0	38·1	38·8	39·5	41·0	40·1	−0·1	+0·3	+0·2	0·0	+0·1	+0·2	38·1	39·1	40·4	40·0	− 0·1	+ 0·1	− 0·1	+ 0·2
18	41·2	38·2	40·0	40·1	40·0	38·2	+0·1	+0·1	+0·1	−0·4	−0·9	+0·1	38·1	38·1	38·5	37·0	+ 0·2	− 0·1	0·0	+ 0·2
19	43·6	29·1	34·7	42·0	42·0	35·0	+0·6	+1·5	+1·1	0·0	+0·2	+0·2	34·1	39·6	39·6	32·1	+ 0·8	− 0·2	− 0·2	+ 0·1
20	37·1	27·1	29·0	35·8	35·8	30·9	+0·4	+0·6	+0·2	+0·5	+0·5	+0·7	26·9	32·0	32·1	29·3	+ 0·4	+ 0·4	+ 0·4	+ 0·4
21	38·4	23·5	24·8	38·4	33·4	35·2	+2·1	+1·4	+0·6	+3·4	+0·2	+0·3	24·4	34·2	31·1	32·5	+ 0·8	+ 2·2	+ 0·3	+ 0·1
22	53·5	33·9	51·3	52·0	53·1	52·0	+0·3	+0·5	+0·1	0·0	+0·1	+0·4	50·9	51·4	52·1	50·5	+ 0·1	0·0	+ 0·1	+ 0·3
23	52·6	49·0	51·9	51·3	52·0	49·0	+0·4	+0·1	+0·3	−0·3	+0·1	−0·1	50·1	50·1	49·1	48·1	+ 0·2	− 0·2	+ 0·1	+ 0·2
24	49·6	32·1	37·2	40·8	42·1	32·8	+0·5	+1·2	+0·4	+0·5	+1·1	+1·9	36·9	39·1	39·2	32·3	+ 0·3	+ 0·5	+ 0·9	+ 1·5
25	44·8	30·6	38·7	44·6	43·2	37·3	+0·2	+1·1	+0·1	+0·7	+0·2	+0·7	38·0	41·6	38·7	35·4	+ 0·2	+ 0·4	+ 0·2	+ 0·6
26	52·9	36·7	47·1	51·1	51·2	48·1	−0·3	+0·6	−0·2	0·0	+0·2	+0·1	46·1	49·3	48·1	46·5	0·0	− 0·4	+ 0·1	− 0·2
27	52·5	47·5	50·0	51·7	51·4	51·1	−0·3	+0·2	0·0	0·0	+0·2	+0·1	49·1	50·2	50·6	50·5	− 0·1	0·0	− 0·1	0·0
28	53·5	48·7	53·0	51·4	51·0	49·4	0·0	+0·5	+0·2	−0·1	+0·2	+0·1	50·1	48·1	46·5	46·1	+ 0·1	− 0·1	0·0	+ 0·2
29	49·4	36·7	42·0	43·8	43·2	36·7	+0·1	+0·4	+0·1	0·0	−0·2	+0·3	38·9	40·5	40·6	35·7	+ 0·1	− 0·2	+ 0·3	+ 0·3
30	43·2	29·1	32·0	40·4	42·2	42·0	+0·2	+0·9	+0·4	+1·8	+0·5	+0·4	31·7	39·1	40·0	39·9	+ 0·2	+ 1·0	+ 0·5	+ 0·1
31	51·4	41·7	45·7	50·2	48·0	41·8	−0·4	+1·0	+0·1	+0·5	+0·2	+0·8	44·5	47·3	43·9	40·0	− 0·2	+ 0·4	+ 0·2	+ 0·6
Means	45·5	36·0	39·7	43·0	42·9	40·6	+0·3	+0·6	+0·3	+0·4	+0·2	+0·3	38·5	40·9	40·7	39·1	+ 0·2	+ 0·2	+ 0·2	+ 0·2

(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.

1909.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	53·10	52·53	51·75	50·78	49·90	49·57	49·78	50·39	51·20	52·13	52·72	52·90
2	53·12	52·49	51·75	50·75	49·90	49·55	49·80	50·41	51·24	52·15	52·75	52·90
3	53·10	52·50	51·70	50·72	49·87	49·55	49·78	50·45	51·28	52·18	52·77	52·92
4	53·06	52·48	51·65	50·70	49·85	49·55	49·83	50·49	51·30	52·20	52·78	52·93
5	53·02	52·44	51·60	50·67	49·83	49·55	49·85	50·51	51·34	52·22	52·78	52·94
6	53·01	52·40	51·60	50·64	49·82	49·54	49·86	50·52	51·36	52·24	52·80	52·93
7	53·01	52·37	51·57	50·62	49·80	49·53	49·89	50·53	51·36	52·26	52·82	52·92
8	52·98	52·33	51·55	50·58	49·78	49·55	49·90	50·55	51·40	52·30	52·83	52·91
9	52·96	52·32	51·50	50·55	49·76	49·58	49·93	50·60	51·45	52·31	52·83	52·90
10	52·96	52·30	51·47	50·52	49·75	49·57	49·94	50·62	51·46	52·35	52·85	52·93
11	52·96	52·25	51·45	50·50	49·74	49·59	49·94	50·65	51·51	52·37	52·86	52·93
12	52·93	52·25	51·41	50·48	49·72	49·59	49·96	50·69	51·56	52·40	52·88	52·89
13	52·90	52·24	51·38	50·40	49·70	49·57	49·99	50·71	51·57	52·42	52·88	52·91
14	52·90	52·23	51·35	50·39	49·68	49·59	50·00	50·75	51·60	52·44	52·87	52·90
15	52·87	52·17	51·33	50·36	49·66	49·60	50·02	50·77	51·64	52·46	52·90	52·88
16	52·85	52·13	51·29	50·32	49·65	49·61	50·05	50·80	51·67	52·48	52·90	52·85
17	52·85	52·10	51·27	50·30	49·64	49·61	50·06	50·81	51·72	52·50	52·94	52·85
18	52·85	52·08	51·25	50·26	49·64	49·62	50·10	50·83	51·74	52·53	52·94	52·85
19	52·82	52·05	51·23	50·23	49·63	49·65	50·10	50·86	51·77	52·55	52·94	52·81
20	52·77	52·02	51·20	50·21	49·63	49·65	50·14	50·87	51·81	52·57	52·94	52·77
21	52·75	52·00	51·16	50·18	49·63	49·65	50·15	50·92	51·84	52·60	52·93	52·75
22	52·75	51·96	51·15	50·15	49·62	49·65	50·16	50·94	51·87	52·61	52·92	52·80
23	52·72	51·92	51·11	50·12	49·61	49·67	50·19	50·97	51·90	52·64	52·92	52·78
24	52·69	51·90	51·09	50·10	49·60	49·64	50·20	51·00	51·94	52·61	52·94	52·73
25	52·65	51·87	51·05	50·07	49·56	49·69	50·23	51·07	51·95	52·62	52·95	52·73
26	52·64	51·84	51·01	50·04	49·57	49·70	50·25	51·05	51·97	52·63	52·95	52·73
27	52·60	51·80	50·97	50·01	49·57	49·72	50·28	51·09	52·00	52·64	52·95	52·73
28	52·58	51·77	50·95	49·98	49·56	49·74	50·30	51·12	52·02	52·66	52·98	52·70
29	52·56		50·93	49·96	49·56	49·75	50·33	51·13	52·05	52·66	52·95	52·65
30	52·54		50·85	49·92	49·59	49·77	50·34	51·15	52·08	52·67	52·93	52·62
31	52·51		50·78		49·58		50·37	51·18		52·69		52·62
Means	52·84	52·17	51·30	50·35	49·69	49·62	50·06	50·79	51·65	52·45	52·88	52·83.

The mean of the twelve monthly values is 51°·39.

(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.

1909.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	51·97	49·68	47·69	45·91	46·81	48·98	51·18	53·38	55·50	55·89	55·38	53·00
2	51·96	49·60	47·61	45·90	46·92	49·04	51·29	53·42	55·59	55·87	55·35	52·90
3	51·86	49·54	47·52	45·90	46·99	49·10	51·39	53·55	55·69	55·87	55·31	52·80
4	51·80	49·46	47·46	45·91	47·07	49·17	51·42	53·62	55·69	55·82	55·23	52·68
5	51·62	49·35	47·39	45·94	47·14	49·30	51·50	53·70	55·73	55·80	55·18	52·59
6	51·57	49·26	47·31	45·96	47·21	49·36	51·59	53·81	55·78	55·78	55·15	52·47
7	51·49	49·16	47·28	45·98	47·28	49·50	51·64	53·90	55·80	55·78	55·11	52·37
8	51·38	49·11	47·20	46·00	47·35	49·60	51·70	53·92	55·80	55·80	54·99	52·26
9	51·28	49·05	47·09	46·02	47·40	49·70	51·80	53·95	55·85	55·75	54·93	52·15
10	51·22	48·98	47·02	46·03	47·49	49·78	51·81	54·02	55·88	55·80	54·87	52·14

(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.*

1909.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
11	51·19	48·88	46·96	46·09	47·56	49·85	51·87	54·08	55·94	55·77	54·78	52·03
12	51·09	48·80	46·86	46·11	47·61	49·91	51·92	54·19	56·00	55·76	54·78	51·90
13	50·96	48·71	46·80	46·07	47·67	49·99	52·03	54·22	55·91	55·70	54·67	51·82
14	50·92	48·68	46·72	46·11	47·70	50·08	52·09	54·29	55·91	55·69	54·55	51·72
15	50·85	48·60	46·68	46·11	47·80	50·13	52·18	54·37	55·96	55·69	54·53	51·67
16	50·76	48·52	46·61	46·18	47·81	50·20	52·22	54·42	55·99	55·70	54·41	51·52
17	50·70	48·45	46·56	46·18	47·90	50·29	52·30	54·44	55·99	55·70	54·40	51·47
18	50·66	48·41	46·50	46·18	47·99	50·35	52·41	54·49	55·97	55·71	54·31	51·38
19	50·59	48·35	46·45	46·23	48·08	50·42	52·45	54·59	55·95	55·69	54·21	51·25
20	50·48	48·28	46·39	46·26	48·17	50·47	52·52	54·66	56·00	55·64	54·11	51·11
21	50·38	48·21	46·33	46·29	48·23	50·52	52·55	54·73	55·93	55·68	54·01	51·01
22	50·36	48·16	46·30	46·32	48·30	50·55	52·64	54·80	56·00	55·61	53·90	51·03
23	50·30	48·08	46·24	46·38	48·35	50·61	52·70	54·92	55·99	55·61	53·80	50·96
24	50·20	48·03	46·20	46·42	48·40	50·66	52·75	55·04	56·01	55·52	53·71	50·80
25	50·08	47·95	46·17	46·48	48·40	50·74	52·82	55·11	55·97	55·49	53·63	50·74
26	50·02	47·89	46·10	46·52	48·50	50·80	52·90	55·16	55·90	55·48	53·56	50·69
27	49·95	47·83	46·04	46·59	48·55	50·87	52·97	55·27	55·89	55·45	53·45	50·61
28	49·93	47·73	46·00	46·62	48·63	50·98	53·07	55·32	55·86	55·43	53·40	50·48
29	49·85		46·00	46·70	48·70	51·04	53·15	55·40	55·87	55·40	53·26	50·38
30	49·76		45·95	46·75	48·82	51·11	53·22	55·44	55·86	55·39	53·18	50·28
31	49·68		45·95		48·90		53·31	55·48		55·39		50·22
Means	50·80	48·67	46·69	46·20	47·86	50·10	52·24	54·44	55·87	55·67	54·41	51·56

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

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

1909.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	49·36	46·25	44·10	44·58	48·60	52·44	54·97	57·89	59·78	57·80	55·40	49·90
2	49·11	46·09	44·03	44·75	48·70	52·56	55·03	57·89	59·72	57·70	55·13	49·82
3	48·90	45·97	43·91	44·90	48·83	52·75	55·10	58·00	59·73	57·63	54·95	49·76
4	48·72	45·85	43·81	45·01	48·90	52·91	55·10	58·09	59·59	57·58	54·70	49·70
5	48·55	45·77	43·78	45·10	48·90	53·08	55·20	58·10	59·48	57·55	54·53	49·61
6	48·55	45·78	43·73	45·17	48·98	53·10	55·29	58·20	59·40	57·51	54·42	49·56
7	48·52	45·84	43·68	45·20	49·04	53·21	55·45	58·20	59·28	57·55	54·36	49·46
8	48·47	45·91	...	45·23	49·12	53·30	55·60	58·29	59·12	57·59	54·22	49·36
9	48·41	46·00	...	45·28	49·26	53·20	55·78	58·30	59·10	57·50	54·09	49·20
10	48·37	45·99	...	45·32	49·40	53·20	55·80	58·44	59·00	57·51	53·94	49·10
11	48·32	45·89	...	45·41	49·55	53·21	55·87	58·58	58·94	57·44	53·74	48·92
12	48·20	45·81	...	45·50	49·70	53·28	55·96	58·73	58·90	57·34	53·59	48·70
13	48·10	45·70	...	45·58	49·80	53·33	56·09	58·90	58·68	57·24	53·34	48·60
14	48·10	45·61	...	45·77	49·91	53·35	56·12	59·05	58·59	57·19	53·10	48·54
15	48·03	45·52	...	45·93	50·09	53·31	56·18	59·24	58·56	57·17	53·00	48·50

(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.*

1909.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
16	47·96	45·40	...	46·10	50·16	53·36	56·18	59·39	58·51	57·13	52·81	48·41
17	47·93	45·30	...	46·27	50·25	53·40	56·30	59·50	58·47	57·02	52·69	48·38
18	47·90	45·20	...	46·40	50·35	53·49	56·49	59·67	58·36	57·07	52·50	48·28
19	47·79	45·12	...	46·60	50·41	53·60	56·58	59·87	58·27	57·01	52·28	48·15
20	47·70	45·05	...	46·79	50·45	53·73	56·70	59·94	58·29	57·01	52·06	48·05
21	47·64	44·96	...	47·00	50·50	53·86	56·80	60·01	58·30	57·01	51·81	47·96
22	47·65	44·90	...	47·20	50·59	53·99	57·00	60·08	58·21	57·00	51·61	47·90
23	47·59	44·80	...	47·40	50·72	54·19	57·18	60·12	58·12	57·01	51·40	47·73
24	47·45	44·70	...	47·59	50·85	54·31	57·28	60·19	58·10	56·82	51·21	47·52
25	47·30	44·60	...	47·73	50·92	54·50	57·40	60·11	58·02	56·79	51·00	47·43
26	47·20	44·48	...	47·90	51·32	54·65	57·54	60·01	57·94	56·70	50·79	47·40
27	47·02	44·38	...	48·08	51·58	54·78	57·64	60·02	57·91	56·60	50·52	47·38
28	46·90	44·26	...	48·20	51·80	54·94	57·70	60·00	57·89	56·39	50·39	47·30
29	46·70		44·20	48·35	51·98	54·93	57·76	59·98	57·88	55·94	50·20	47·30
30	46·52		44·30	48·49	52·19	54·93	57·78	59·89	57·81	55·80	50·05	47·30
31	46·37		44·42		52·31		57·86	59·80		55·65		47·40
Means	47·91	45·40	...	46·29	50·17	53·63	56·38	59·18	58·67	57·07	52·79	48·47

At temperatures below 43°·60 the spirit of this thermometer passes beyond range of the scale, and descends into the capillary tube. The readings were out of range for some days after March 7, no further readings being taken until March 29.

(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.

1909.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	43·27	40·66	38·91	43·60	48·65	54·48	55·79	59·50	60·41	56·78	51·10	45·80
2	43·31	40·68	38·90	43·70	48·43	54·85	55·82	59·62	59·98	56·72	51·10	45·80
3	43·71	40·79	38·71	43·45	48·20	54·86	55·97	59·69	59·56	56·90	51·10	45·80
4	44·20	41·25	38·70	43·22	48·21	54·43	56·30	59·60	59·10	57·05	51·28	45·80
5	44·45	41·98	38·59	43·14	48·37	54·05	56·91	59·52	59·12	57·30	51·40	45·60
6	44·60	42·60	38·49	43·06	48·67	53·70	57·30	59·80	59·08	57·40	51·40	45·23
7	44·43	42·68	38·23	43·08	49·00	53·60	57·50	60·01	59·00	57·15	51·16	44·87
8	44·30	42·42	38·20	43·21	49·32	53·50	57·50	60·31	58·85	56·80	50·77	44·53
9	44·15	42·09	38·30	43·42	49·55	53·59	57·50	60·60	58·55	56·70	50·34	44·05
10	43·90	41·69	38·50	43·68	49·76	53·80	57·41	60·91	58·30	56·49	49·86	43·78
11	43·85	41·57	38·71	44·10	49·92	53·94	57·50	61·25	58·03	56·29	49·49	43·79
12	44·10	41·40	38·80	44·30	50·11	53·68	57·40	61·55	58·11	56·36	49·20	44·08
13	44·18	41·13	38·88	44·80	50·48	53·42	57·30	61·90	58·03	56·31	49·06	44·21
14	44·09	40·83	38·90	45·11	50·60	53·37	57·25	62·21	58·00	56·32	48·98	44·32
15	44·00	40·51	38·99	45·50	50·50	53·52	57·60	62·59	57·87	56·12	48·71	44·21
16	44·03	40·55	38·87	45·72	50·15	53·85	57·90	62·94	57·71	56·08	48·30	44·02
17	43·90	40·61	38·74	46·08	49·99	54·15	58·20	63·08	57·66	56·20	47·91	43·80
18	43·67	40·55	38·67	46·40	50·00	54·50	58·50	62·99	57·68	56·50	47·56	43·71
19	43·81	40·50	38·82	46·89	49·94	54·92	58·90	62·88	57·78	56·50	47·31	43·60
20	44·00	40·35	39·36	47·25	50·15	55·36	59·30	62·64	57·85	56·49	47·10	43·51

(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.*

1909.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
21	43·70	40·18	40·00	47·50	50·60	55·80	59·50	62·40	57·61	56·48	46·80	43·08
22	43·40	40·06	40·51	47·71	51·20	56·08	59·70	62·10	57·51	56·40	46·41	42·65
23	43·21	39·89	41·10	47·80	52·00	56·40	59·90	61·80	57·29	56·11	46·00	42·50
24	42·80	39·68	41·49	48·02	52·90	56·40	59·92	61·51	57·51	55·90	45·59	43·01
25	42·40	39·48	41·84	48·28	53·35	56·40	59·86	61·40	57·64	55·69	45·27	43·38
26	42·06	39·35	42·15	48·50	53·61	56·20	59·69	61·31	57·58	55·10	45·08	43·29
27	41·70	39·22	42·30	48·61	53·60	55·92	59·50	61·20	57·59	54·22	44·89	43·29
28	41·51	39·13	42·18	48·80	53·45	55·79	59·34	61·01	57·31	53·58	44·98	43·60
29	41·10		42·42	48·88	53·45	55·62	59·28	60·90	57·00	52·70	45·10	44·15
30	40·85		42·85	48·80	53·80	55·71	59·33	60·76	56·80	52·22	45·61	44·40
31	40·80		43·35		54·04		59·44	60·61		51·75		44·20
Means	43·34	40·78	39·82	45·75	50·71	54·73	58·17	61·24	58·15	55·89	48·30	44·13

The mean of the twelve monthly values is 50°·08.

(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.

1909.

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

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

1909.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
26	38·0	36·1	43·8	52·0	55·3	55·0	61·0	60·8	59·0	49·2	40·2	44·0
27	35·0	35·9	42·1	53·2	56·0	56·1	60·6	61·0	55·9	50·0	41·2	46·7
28	35·0	35·5	45·1	51·0	56·0	57·3	61·0	61·0	55·0	49·0	45·0	49·0
29	35·0		48·8	51·0	58·0	57·6	61·7	62·0	56·0	46·8	49·0	45·0
30	36·0		48·8	48·2	58·2	57·2	62·1	60·4	55·2	44·2	45·1	41·0
31	38·3		47·0		60·8		63·3	59·1		45·2		45·0
Means	40·6	38·6	40·1	48·9	54·0	56·8	61·4	63·6	57·3	54·8	44·4	42·3

The mean of the twelve monthly values is 50°·23.

(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.

1909.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	44·3	42·1	36·4	42·5	46·0	64·2	57·7	66·5	56·0	61·0	49·0	44·0
2	46·1	38·0	33·0	45·0	50·1	51·8	64·0	59·0	55·1	59·5	50·0	44·0
3	47·1	51·4	32·0	45·3	54·1	52·9	70·3	61·0	63·7	61·2	52·0	42·0
4	45·1	52·5	33·3	47·5	59·3	48·8	66·5	68·0	60·0	62·0	50·0	42·0
5	36·5	45·3	32·0	46·8	57·4	55·5	66·0	67·9	59·5	61·0	46·0	36·0
6	41·0	40·4	34·3	52·4	61·8	49·5	62·0	73·0	63·5	54·0	47·0	37·8
7	41·5	36·9	37·3	54·3	58·1	58·0	61·0	74·0	57·5	57·0	45·2	35·9
8	39·0	36·2	43·0	56·9	58·0	62·0	63·8	73·0	54·0	60·0	43·3	35·2
9	37·5	38·0	36·0	60·6	59·8	62·6	66·2	71·0	57·0	55·0	40·9	35·0
10	44·5	37·8	37·5	57·1	55·9	52·0	57·0	72·0	56·5	61·2	43·9	47·1
11	48·0	38·0	35·2	64·1	62·0	52·9	58·0	72·0	60·5	61·3	40·4	46·2
12	42·1	35·0	35·3	53·0	65·1	53·0	55·8	76·0	62·2	58·5	50·1	37·0
13	39·5	35·1	38·0	54·0	53·6	57·0	65·5	75·5	55·7	57·4	43·9	42·0
14	43·5	35·4	35·0	53·1	46·0	63·5	66·0	74·4	54·8	56·2	39·0	39·8
15	40·1	45·1	34·8	57·9	50·9	55·0	67·4	77·4	57·2	58·6	40·1	37·9
16	37·9	37·8	36·0	55·1	52·5	60·0	60·5	74·7	58·7	60·6	38·5	37·0
17	43·4	38·9	38·6	59·0	48·0	59·9	66·5	67·8	63·8	60·0	42·1	40·0
18	47·7	40·5	45·9	59·2	59·5	61·1	69·5	65·2	59·4	58·3	44·3	40·9
19	43·0	38·9	48·8	61·0	62·0	67·2	69·5	68·3	57·1	58·2	42·0	40·0
20	38·0	40·0	50·8	57·0	70·0	63·4	68·2	64·6	59·0	58·0	37·0	35·6
21	37·0	44·5	46·7	56·0	74·0	68·0	65·8	61·0	54·0	55·2	38·0	34·3
22	37·0	37·0	49·9	58·1	74·0	58·5	66·5	62·0	57·4	55·6	36·1	52·0
23	33·1	29·5	45·9	57·2	73·8	62·0	67·0	64·1	61·0	60·9	35·0	51·0
24	33·0	36·0	49·5	60·0	70·0	56·0	63·0	67·5	63·0	52·0	35·4	38·8
25	33·0	34·4	50·2	56·0	55·0	54·0	61·8	64·0	61·2	46·8	40·0	40·9
26	36·0	34·9	45·1	62·0	53·0	55·2	62·4	58·0	57·0	46·5	39·0	49·0
27	30·0	34·0	45·1	54·1	59·5	54·7	62·9	64·0	54·0	45·5	42·0	50·8
28	29·3	32·8	48·4	57·0	61·0	62·4	62·5	63·8	52·0	46·1	49·8	51·0
29	36·0		57·0	54·5	63·0	58·5	63·6	66·0	54·0	41·9	52·0	43·0
30	34·5		48·8	47·0	67·8	56·8	63·4	60·1	52·0	40·3	44·2	37·0
31	35·5		50·0		70·5		68·4	57·0		44·0		48·0
Means	39·4	38·8	41·6	54·8	59·7	57·9	64·2	67·4	57·9	55·3	43·2	41·7

The mean of the twelve monthly values is 51°·83.

ABSTRACT of the CHANGES of the DIRECTION of the WIND, as derived from the Records of OSLER'S ANEMOMETER in the Year 1909.

(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.	
From	To	From	To	Direct.	Retrograde.
				°	°
January.					
d h	d h				
1. 8½	1. 9¼	W.	W.S.W.		22½
1. 10	1. 11	W.S.W.	W.	22½	
1. 13½	1. 14	W.	W.S.W.		22½
1. 15¼	1. 15¾	W.S.W.	W.	22½	
1. 19¾	1. 20¼	W.	W.S.W.		22½
1. 22¾	1. 23½	W.S.W.	W.	22½	
3. 10	3. 10½	W.	W.N.W.	22½	
3. 11¾	3. 12	W.N.W.	W.		22½
3. 18	3. 18¼	W.	W.S.W.		22½
4. 2½	4. 3	W.S.W.	S.W.	337½	
4. 6¾	4. 7	S.W.	S.S.E.		67½
4. 10	4. 12½	S.S.E.	S.W.	67½	
4. 17¼	4. 17½	S.W.	S.		45
5. 1¾	5. 2	S.	S.S.E.		22½
5. 8¼	5. 8½	S.S.E.	S.	22½	
5. 11	5. 13½	S.	S.W.	45	
5. 18	5. 20	S.W.	W.	45	
6. 0	6. 1	W.	W.S.W.		22½
6. 11	6. 12½	W.S.W.	W.N.W.	45	
6. 15	6. 15¾	W.N.W.	W.		22½
7. 0¼	7. 0¾	W.	N.W.	45	
7. 1	7. 2½	N.W.	W.S.W.		67½
7. 5	7. 6	W.S.W.	W.	22½	
7. 11¼	7. 11½	W.	W.N.W.	22½	
7. 14	7. 15½	W.N.W.	W.		22½
7. 22	7. 22¾	W.	W.N.W.	22½	
7. 23¼	7. 23½	W.N.W.	N.N.W.	45	
8. 2	8. 2½	N.N.W.	N.W.		22½
8. 11	8. 11½	N.W.	N.N.W.	22½	
8. 14	8. 16½	N.N.W.	N.N.E.	45	
9. 3¼	9. 4	N.N.E.	N.		22½
9. 13¾	9. 14¾	N.	N.W.		45
9. 18¾	9. 19	N.W.	W.N.W.		22½
9. 20¾	9. 23	W.N.W.	W.S.W.		45
10. 3¾	10. 4	W.S.W.	W.	22½	
10. 5	10. 5½	W.	W.S.W.		22½
10. 11¼	10. 13	W.S.W.	W.	22½	
10. 14½	10. 15½	W.	W.S.W.		22½
10. 18½	10. 19	W.S.W.	S.W.		22½
10. 22¼	11. 1	S.W.	W.	45	
11. 7¼	11. 9	W.	W.S.W.		22½
11. 10¼	11. 10½	W.S.W.	W.	22½	
11. 12	11. 12¾	W.	W.N.W.	22½	
11. 15½	11. 16	W.N.W.	W.		22½
12. 0¾	12. 2½	W.	W.N.W.	22½	
12. 9¼	12. 9¾	W.N.W.	N.W.	22½	
12. 17½	12. 17¾	N.W.	W.N.W.		22½
12. 20	12. 20¼	W.N.W.	W.		22½
13. 0¼	13. 0½	W.	W.S.W.		22½
13. 1¾	13. 2¼	W.S.W.	S.W.		22½
13. 5¼	13. 5½	S.W.	S.S.E.		67½
13. 6¾	13. 7¾	S.S.E.	E.		67½
13. 8¼	13. 8¾	E.	S.E.	45	
13. 11½	13. 13	S.E.	W.	135	
13. 15¼	13. 16¼	W.	W.S.W.		22½
13. 18½	13. 21¼	W.S.W.	W.N.W.	45	
13. 23¼	13. 23¾	W.N.W.	W.		22½
14. 1¼	14. 2	W.	W.N.W.	22½	
14. 5¼	14. 5½	W.N.W.	W.		22½
14. 10	14. 10½	W.	W.N.W.	22½	
14. 12¾	14. 13½	W.N.W.	W.		22½
14. 15¾	14. 16¼	W.	W.S.W.		22½
14. 18½	14. 19½	W.S.W.	S.W.		22½
14. 21½	14. 22	S.W.	W.S.W.	22½	
15. 3¼	15. 3½	W.S.W.	W.	22½	
15. 5¼	15. 5¾	W.	N.W.	45	
15. 7¾	15. 8¼	N.W.	W.N.W.		22½
15. 12¼	15. 12½	W.N.W.	W.		22½
15. 14¾	15. 17	W.	S.W.	45	
15. 22½	15. 23¼	S.W.	W.S.W.	22½	
16. 4¾	16. 5¼	W.S.W.	W.	22½	
17. 4	17. 4¾	W.	W.S.W.		22½
17. 7¾	17. 8½	W.S.W.	S.W.		22½
17. 11¾	17. 12¾	S.W.	W.S.W.	22½	
17. 23	17. 23¼	W.S.W.	S.W.		22½
19. 5½	19. 5¾	S.W.	N.	135	
19. 9¼	19. 9¾	N.	N.N.E.	22½	
19. 11¾	19. 12½	N.N.E.	N.		22½
19. 14	19. 14½	N.	N.N.E.	22½	
19. 17¼	19. 17¾	N.N.E.	N.		22½
19. 19¾	19. 20½	N.	N.N.W.		22½
19. 22	19. 22¼	N.N.W.	W.N.W.		45
20. 1½	20. 1¾	W.N.W.	W.		22½
20. 7¼	20. 7½	W.	N.N.W.	67½	
20. 8¼	20. 10¼	N.N.W.	N.N.E.	45	
20. 11¼	20. 11½	N.N.E.	N.E.	22½	
20. 19	20. 20	N.E.	E.N.E.	22½	
20. 21½	20. 21¾	E.N.E.	N.E.		22½
21. 4½	21. 4¾	N.E.	N.N.E.		22½
21. 9¾	21. 11¼	N.N.E.	E.N.E.	45	
21. 14¼	21. 14½	E.N.E.	N.E.		22½
21. 17	21. 18	N.E.	E.N.E.	22½	
21. 21	21. 22½	E.N.E.	N.E.		22½
22. 10¼	22. 11½	N.E.	E.	45	
22. 18¼	22. 18½	E.	E.N.E.		22½
23. 5	23. 6¼	E.N.E.	N.E.		22½
23. 7¾	23. 9½	N.E.	E.	45	
23. 10	23. 10¼	E.	E.N.E.		22½
23. 14¼	23. 14½	E.N.E.	E.	22½	
23. 16	23. 16¼	E.	E.N.E.		22½
23. 20¼	23. 21¼	E.N.E.	N.E.		22½
24. 0½	24. 2	N.E.	E.	45	
24. 3	24. 4½	E.	S.S.E.	67½	
24. 6	24. 6½	S.S.E.	S.E.		22½
24. 8	24. 8½	S.E.	S.S.E.	22½	
24. 10	24. 10¼	S.S.E.	S.E.		22½
24. 12¾	24. 13¼	S.E.	E.		45
24. 14¼	24. 14½	E.	E.S.E.	22½	
24. 18¼	24. 20¼	E.S.E.	E.N.E.		45
25. 23½	25. 23¾	E.N.E.	N.E.		22½
26. 4½	26. 5	N.E.	E.N.E.	22½	
26. 9½	26. 10	E.N.E.	N.E.		22½
26. 13¼	26. 14¾	N.E.	E.	45	
26. 16½	26. 17½	E.	E.N.E.		22½
26. 22¾	27. 1	E.N.E.	N.E.		22½
27. 10¾	27. 11½	N.E.	S.W.	180	
27. 17½	27. 17¾	S.W.	E.S.E.		112½
27. 19¾	27. 20½	E.S.E.	E.N.E.		45
27. 21¼	27. 21½	E.N.E.	S.E.	67½	
27. 23½	27. 23¾	S.E.	S.	45	
28. 5½	28. 5¾	S.	S.S.E.		22½
28. 13½	28. 14	S.S.E.	E.		67½
28. 15½	28. 16½	E.	S.E.	45	
29. 5¼	29. 5½	S.E.	S.S.E.	22½	
29. 7¾	29. 9	S.S.E.	S.W.	67½	
29. 12¼	29. 14½	S.W.	W.	45	
29. 16¾	29. 17½	W.	W.N.W.	22½	
29. 19	29. 20	W.N.W.	W.		22½
30. 4	30. 5½	W.	N.N.W.	67½	
30. 6¾	30. 7	N.N.W.	N.N.E.	45	
30. 15½	30. 16	N.N.E.	N.		22½
30. 18¾	30. 22	N.	N.W.		45
31. 0½	31. 0¾	N.W.	W.N.W.		22½
31. 8½	31. 10½	W.N.W.	N.N.W.	45	
31. 15¾	31. 16	N.N.W.	N.W.		22½
31. 20½	31. 21¼	N.W.	W.N.W.		22½
31. 23	31. 23½	W.N.W.	W.		22½
			Sums	2880	2160
February.					
1. 5¼	1. 12	W.	N.N.E.	112½	
1. 21	1. 21½	N.N.E.	N.		22½
2. 0	2. 1	N.	W.		90
2. 2	2. 2½	W.	W.S.W.		22½

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

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
Feb.—*cont.*				°	°
d h	d h				
2. 6½	2. 7½	W.S.W.	W.	22½	
2. 17	2. 18	W.	W.S.W.		22½
2. 19¾	2. 20½	W.S.W.	W.	22½	
4. 8½	4. 9½	W.	W.N.W.	22½	
4. 21¼	4. 21½	W.N.W.	W.		22½
5. 0¼	5. 0¾	W.	W.S.W.		22½
5. 4	5. 5	W.S.W.	W.	22½	
5. 8	5. 8¾	W.	N.N.W.	67½	
5. 22¾	5. 23¾	N.N.W.	W.	67½	
6. 1	6. 1½	W.	W.N.W.	22½	
6. 8	6. 8¼	W.N.W.	W.		22½
6. 9½	6. 10¾	W.	N.	90	
6. 15¾	6. 16	N.	N.N.E.	22½	
6. 20¾	6. 22¾	N.N.E.	W.S.W.	225	
7. 6½	7. 6¾	W.S.W.	E.		157½
7. 8	7. 8¼	E.	N.E.	45	
7. 9¾	7. 11	N.E.	S.S.E.	112½	
7. 14½	7. 15	S.S.E.	S.	22½	
7. 16½	7. 18	S.	S.S.E.		22½
8. 1½	8. 2½	S.S.E.	S.E.		22½
8. 12	8. 12¼	S.E.	S.S.E.	22½	
8. 14	8. 14½	S.S.E.	S.E.		22½
8. 22	8. 22¼	S.E.	S.	45	
9. 0	9. 0¼	S.	S.S.W.	22½	
9. 7¼	9. 9¼	S.S.W.	S.W.	22½	
9. 17½	9. 18½	S.W.	W.S.W.	22½	
9. 22½	9. 23	W.S.W.	W.	22½	
10. 10½	10. 11	W.	W.N.W.	22½	
10. 14	10. 15	W.N.W.	N.	67½	
10. 16	10. 16¾	N.	N.W.		45
10. 17½	10. 17¾	N.W.	N.N.E.	67½	
10. 21½	10. 21¾	N.N.E.	N.E.	22½	
11. 6¼	11. 7½	N.E.	E.N.E.	22½	
11. 17¼	11. 17½	E.N.E.	N.E.		22½
11. 21	11. 21½	N.E.	E.N.E.	22½	
12. 22	12. 22½	E.N.E.	N.E.		22½
13. 8¼	13. 8½	N.E.	E.N.E.	22½	
13. 17½	13. 18	E.N.E.	N.E.		22½
13. 22¼	13. 23	N.E.	N.N.E.		22½
14. 3¼	14. 5	N.N.E.	W.S.W.	135	
14. 6	14. 6¼	W.S.W.	W.	22½	
14. 7½	14. 8¼	W.	N.N.W.	67½	
14. 11	14. 11½	N.N.W.	W.		67½
14. 11½	14. 13	W.	N.	90	
14. 16	14. 16¾	N.	N.N.W.		22½
14. 21	14. 22¼	N.N.W.	N.W.		22½
14. 23¾	15. 1¼	N.W.	S.W.		90
15. 2	15. 2¼	S.W.	W.S.W.	22½	
15. 8¼	15. 10	W.S.W.	N.N.W.	90	
15. 13½	15. 13¾	N.N.W.	N.	22½	
15. 16¾	15. 17	N.	N.N.W.		22½
16. 17½	16. 17¾	N.N.W.	N.W.		22½
17. 0¼	17. 0½	N.W.	S.W.		90
17. 5½	17. 5¾	S.W.	W.S.W.	22½	
17. 8¼	17. 8½	W.S.W.	S.W.		22½
18. 0¼	18. 0½	S.W.	S.	45	
18. 6	18. 6¼	S.	S.S.E.	22½	
18. 13¼	18. 13½	S.S.E.	S.E.	22½	
18. 18½	18. 19¼	S.E.	E.S.E.	22½	
Feb.—*cont.*					
d h	d h				
19. 2½	19. 4	E.S.E.	E.	22½	
19. 6½	19. 8	E.	E.S.E.	22½	
19. 13	19. 13¼	E.S.E.	S.E.	22½	
19. 15	19. 15½	S.E.	E.S.E.	22½	
19. 21¼	19. 21½	E.S.E.	E.	22½	
20. 0¼	20. 0¾	E.	S.E.	45	
20. 3½	20. 4½	S.E.	S.S.E.	22½	
20. 6¾	20. 7½	S.S.E.	S.E.	22½	
21. 9¼	21. 11	S.E.	S.S.E.	22½	
21. 15	21. 15½	S.S.E.	S.E.	22½	
21. 20	21. 20½	S.E.	E.N.E.	67½	
21. 21¾	21. 22	E.N.E.	E.S.E.	45	
22. 0	22. 1	E.S.E.	E.	22½	
22. 2½	22. 2¾	E.	E.N.E.	22½	
22. 6	22. 6¾	E.N.E.	E.	22½	
22. 9½	22. 10	E.	E.N.E.	22½	
22. 13	22. 13¼	E.N.E.	E.	22½	
22. 17	22. 18	E.	E.S.E.	22½	
23. 2¾	23. 3½	E.S.E.	S.W.	112½	
23. 11	23. 12½	S.W.	N.N.W.	112½	
23. 14½	23. 15	N.N.W.	E.	112½	
23. 20	23. 20¼	E.	E.N.E.	22½	
23. 21¾	23. 22	E.N.E.	E.	22½	
24. 5	24. 8	E.	N.N.E.	67½	
24. 10	24. 11½	N.N.E.	E.	67½	
24. 14	24. 14½	E.	E.N.E.	22½	
24. 20¾	24. 21	E.N.E.	N.E.	22½	
25. 1½	25. 2	N.E.	N.	45	
25. 6¾	25. 7½	N.	N.N.E.	22½	
25. 11¾	25. 12	N.N.E.	N.E.	22½	
25. 15	25. 15¼	N.E.	E.N.E.	22½	
25. 16¾	25. 17	E.N.E.	N.E.	22½	
26. 3½	26. 4¼	N.E.	N.N.E.	22½	
26. 11	26. 11¼	N.N.E.	N.	22½	
26. 14¾	26. 15¾	N.	N.E.	45	
26. 20½	26. 21½	N.E.	N.N.E.	22½	
27. 8½	27. 9	N.N.E.	N.	22½	
27. 21½	27. 22½	N.	N.E.	45	
28. 6¼	28. 7½	N.E.	E.N.E.	22½	
28. 8½	28. 10½	E.N.E.	S.E.	67½	
28. 12½	28. 12¾	S.E.	E.		
28. 14¼	28. 14¾	E.	N.E.	45	
28. 20½	28. 21	N.E.	E.	45	
28. 23¼	28. 23½	E.	S.E.	45	
			Sums	2520	1935
March.					
1. 1	1. 1¼	S.E.	E	45	
1. 8½	1. 8¾	E.	N.N.E.	67½	
1. 11¾	1. 12	N.N.E.	N.E.	22½	
1. 15¼	1. 15¾	N.E.	E.N.E.	22½	
1. 16½	1. 17	E.N.E.	N.E.	22½	
1. 23½	2. 0¼	N.E.	N.N.E.	22½	
Mar.—*cont.*					
d h	d h				
2. 4	2. 4½	N.N.E.	S.W.		157½
2. 9	2. 10¼	S.W.	W.S.W.	22½	
2. 12½	2. 12¾	W.S.W.	S.W.		22½
2. 15¾	2. 16	S.W.	S.S.W.		22½
2. 18¼	2. 19	S.S.W.	S.		22½
2. 20½	2. 23¼	S.	S.E.		45
3. 0¾	3. 1	S.E.	S.S.E.	22½	
3. 2½	3. 2¾	S.S.E.	W.	112½	
3. 5¾	3. 7¼	W.	S.W.		45
3. 11½	3. 11¾	S.W.	S.E.		90
3. 12½	3. 12¾	S.E.	E.N.E.		67½
3. 14	3. 14¼	E.N.E.	E.	22½	
3. 15½	3. 18	E.	N.E.		45
3. 20	3. 23½	N.E.	N.		45
4. 18¼	4. 19¼	N.	S.E.		225
4. 20	4. 20¾	S.E.	S.W.	90	
5. 15¼	5. 20¼	S.W.	S.E.		90
6. 7½	6. 8	S.E.	E.S.E.		22½
6. 10	6. 10½	E.S.E.	S.E.	22½	
7. 5	7. 5½	S.E.	W.	135	
7. 7¼	7. 8	W.	W.S.W.		22½
7. 13¾	7. 16¼	W.S.W.	S.S.W.		45
7. 20½	7. 21	S.S.W.	S.		22½
8. 2	8. 4	S.	S.E.		45
8. 18	8. 18¼	S.E.	E.S.E.		22½
8. 19¾	8. 20¼	E.S.E.	E.		22½
8. 23½	9. 0	E.	E.N.E.		22½
9. 3¾	9. 4	E.N.E.	N.E.		22½
9. 8	9. 9	N.E.	E.N.E.	22½	
9. 11	9. 11½	E.N.E.	E.	22½	
9. 15	9. 15½	E.	E.N.E.		22½
9. 18	9. 18¼	E.N.E.	E.	22½	
9. 19½	9. 20¼	E.	N.E.		45
9. 21¼	9. 21¾	N.E.	E.N.E.	22½	
10. 1½	10. 2½	E.N.E.	E.	22½	
10. 5	10. 5½	E.	E.N.E.		22½
10. 12¾	10. 13½	E.N.E.	N.E.		22½
11. 21	11. 21½	N.E.	N.N.E.		22½
11. 23½	12. 0¼	N.N.E.	N.		22½
12. 14½	12. 15	N.	N.N.E.	22½	
12. 15¾	12. 16	N.N.E.	N.		22½
12. 17¾	12. 20	N.	N.W.		45
12. 21¼	12. 23	N.W.	N.N.W.	22½	
13. 9¼	13. 10¼	N.N.W.	N.	22½	
13. 16¼	13. 16½	N.	N.N.W.		22½
13. 19½	13. 23	N.N.W.	S.W.		112½
14. 2	14. 3	S.W.	W.S.W.	22½	
14. 4¾	14. 6	W.S.W.	N.	112½	
14. 8½	14. 8¾	N.	N.N.W.		22½
14. 12¾	14. 13	N.N.W.	N.	22½	
14. 23½	15. 0½	N.	N.N.W.		22½
15. 9	15. 10	N.N.W.	N.	22½	
16. 3¼	16. 3½	N.	N.N.W.		22½
16. 9	16. 9¼	N.N.W.	N.	22½	
16. 15¼	16. 16½	N.	W.S.W.	247½	
16. 18¾	16. 19	W.S.W.	S.	292½	
16. 20½	16. 23	S.	S.S.W.	382½	
17. 8½	17. 9	S.S.W.	S.W.	22½	
17. 14¾	17. 15¼	S.W.	S.S.W.		22½

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

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
Mar.—*cont.*				°	°
d h	d h				
17. 18	17. 20	S.S.W.	S.		22½
18. 2	18. 2½	S.	S.S.E.		22½
18. 6¼	18. 6¾	S.S.E.	S.E.		22½
18. 8¾	18. 9¼	S.E.	S.S.E.	22½	
18. 11¼	18. 11½	S.S.E.	S.	22½	
18. 12¾	18. 13¾	S.	S.S.E.		22½
18. 21¾	18. 22¼	S.S.E.	S.E.		22½
19. 0	19. 1½	S.E.	S.S.W.	67½	
19. 3½	19. 4½	S.S.W.	S.		22½
19. 7½	19. 8½	S.	S.S.W.	22½	
19. 15¾	19. 16¼	S.S.W.	S.		22½
19. 17½	19. 17¾	S.	S.W.	45	
19. 18¼	19. 18½	S.W.	S.		45
20. 19¼	20. 20	S.	S.W.	45	
20. 22	20. 22¾	S.W.	W.S.W.	22½	
21. 0	21. 0¼	W.S.W.	S.W.		22½
21. 6¼	21. 7¼	S.W.	S.S.W.		22½
21. 10½	21. 10¾	S.S.W.	S.		22½
21. 13¼	21. 15¾	S.	S.E.	45	
21. 19	21. 19½	S.E.	W.S.W.	112½	
21. 23	22. 0½	W.S.W.	W.	22½	
22. 4	22. 5¼	W.	W.S.W.		22½
22. 7¼	22. 7½	W.S.W.	S.W.		22½
22. 11¾	22. 12	S.W.	S.S.E.		67½
22. 13	22. 13¾	S.S.E.	S.S.W.	45	
22. 15½	22. 16	S.S.W.	S.E.		67½
22. 16¾	22. 17½	S.E.	S.S.W.	67½	
22. 19¼	22. 19½	S.S.W.	S.		22½
22. 21½	22. 22	S.	S.S.E.		22½
23. 4¼	23. 5½	S.S.E.	N.E.		112½
23. 7	23. 7¾	N.E.	E.N.E.	22½	
23. 13½	23. 13¾	E.N.E.	E.	22½	
23. 18¼	23. 22	E.	S.E.	45	
23. 23½	23. 23¾	S.E.	S.S.E.	22½	
24. 1¾	24. 3¾	S.S.E.	S.S.W.	45	
24. 17¼	24. 18½	S.S.W.	S.W.	22½	
25. 2¾	25. 3½	S.W.	W.S.W.	22½	
25. 5	25. 6¼	W.S.W.	S.W.		22½
25. 7¼	25. 8½	S.W.	W.S.W.	22½	
25. 14½	25. 16¼	W.S.W.	W.N.W.	45	
25. 17¾	25. 18	W.N.W.	N.N.W.	45	
25. 18½	25. 19½	N.N.W.	N.W.		22½
26. 7	26. 9	N.W.	N.N.W.	22½	
26. 17¼	26. 17½	N.N.W.	N.W.		22½
27. 0¾	27. 4	N.W.	S.W.		90
27. 9	27. 11¼	S.W.	N.W.	90	
27. 11¼	27. 11¾	N.W.	W.S.W.		67½
27. 15	27. 15¼	W.S.W.	S.W.		22½
27. 17	27. 17½	S.W.	S.S.W.		22½
27. 20½	27. 21½	S.S.W.	S.		22½
28. 0	28. 3	S.	S.E.	45	
28. 6¼	28. 6¾	S.E.	S.S.E.	22½	
28. 8¼	28. 8¾	S.S.E.	S.	22½	
28. 11¼	28. 11½	S.	S.S.W.	22½	
28. 16	28. 17	S.S.W.	S.		22½
28. 20	28. 21	S.	S.S.W.	22½	
29. 0	29. 2¾	S.S.W.	S.S.E.	45	
29. 7¼	29. 8	S.S.E.	S.	22½	
29. 10	29. 10¼	S.	S.S.W.	22½	
Mar.—*cont.*				°	°
d h	d h				
29. 10¾	29. 11½	S.S.W.	S.		22½
29. 22½	29. 23½	S.	S.S.E.		22½
30. 8¼	30. 11	S.S.E.	W.	112½	
30. 12½	30. 14	W.	S.W.		45
30. 14	30. 14½	S.W.	W.S.W.	22½	
30. 22¾	30. 23	W.S.W.	S.W.		22½
31. 5	31. 6¼	S.W.	S.		45
31. 14	31. 14½	S.	S.S.E.		22½
31. 17¾	31. 20	S.S.E.	W.S.W.	90	
			Sums	3082½	2970
April.					
1. 3	1. 4¼	W.S.W.	N.N.W.	90	
1. 7½	1. 8	N.N.W.	N.	22½	
1. 13	1. 13¼	N.	N.N.E.	22½	
1. 16¼	1. 16¾	N.N.E.	N.E.	22½	
2. 3¼	2. 3¾	N.E.	N.		45
2. 5¾	2. 6¾	N.	N.E.	45	
2. 14½	2. 15½	N.E.	E.	45	
2. 17	2. 19¼	E.	S.E.	45	
3. 3¼	3. 3½	S.E.	E.S.E.		22½
3. 6¾	3. 8¾	E.S.E.	S.S.E.	45	
3. 10½	3. 11¼	S.S.E.	S.E.		22½
3. 17½	3. 18¼	S.E.	E.S.E.		22½
3. 23	4. 1	E.S.E.	S.E.	22½	
4. 9	4. 10½	S.E.	S.S.E.	22½	
4. 11¾	4. 12	S.S.E.	S.E.		22½
4. 14	4. 14¼	S.E.	E.	45	
5. 10½	5. 11	E.	E.N.E.		22½
5. 14¾	5. 15	E.N.E.	E.	22½	
5. 18¼	5. 18¾	E.	E.N.E.		22½
6. 1	6. 2	E.N.E.	N.E.		22½
6. 4	6. 4¾	N.E.	E.N.E.	22½	
6. 10	6. 10½	E.N.E.	E.	22½	
6. 19	6. 19¾	E.	E.N.E.		22½
6. 20½	6. 20¾	E.N.E.	E.	22½	
6. 22	7. 1¼	E.	N.E.		45
7. 7¾	7. 8¾	N.E.	E.N.E.	22½	
7. 11¾	7. 12	E.N.E.	E.	22½	
7. 14	7. 14¼	E.	E.S.E.	22½	
7. 19¼	7. 19½	E.S.E.	E.		22½
8. 0¼	8. 0½	E.	N.E.		45
8. 7¼	8. 7½	N.E.	E.N.E.	22½	
8. 8¾	8. 9	E.N.E.	N.E.		22½
8. 11	8. 11¼	N.E.	E.	45	
8. 13	8. 13¾	E.	E.N.E.		22½
8. 14¾	8. 15	E.N.E.	E.	22½	
9. 9½	9. 10	E.	E.S.E.	22½	
9. 12	9. 12½	E.S.E.	N.N.W.	225	
9. 13¾	9. 19	N.N.W.	S.	202½	
9. 21	9. 22¾	S.	W.S.W.	67½	
10. 1½	10. 1¾	W.S.W.	N.N.W.	90	
10. 4¼	10. 4½	N.N.W.	N.E.	67½	
Apr.—*cont.*				°	°
d h	d h				
10. 7	10. 7¼	N.E.	S.E.	90	
10. 9¼	10. 9½	S.E.	N.E.		90
10. 10	10. 11¾	N.E.	E.	45	
10. 14	10. 14¼	E.	E.N.E.		22½
10. 15¼	10. 15½	E.N.E.	E.	22½	
10. 19	10. 21½	E.	S.W.	135	
11. 7¾	11. 8¾	S.W.	W.S.W.	22½	
11. 15	11. 16	W.S.W.	W.N.W.	45	
11. 18¼	11. 18½	W.N.W.	W.		22½
12. 1	12. 1¼	W.	W.N.W.	22½	
12. 4	12. 5	W.N.W.	W.		22½
12. 9½	12. 11	W.	W.S.W.		22½
12. 12¾	12. 13½	W.S.W.	S.W.		22½
12. 16	12. 17	S.W.	W.S.W.	22½	
13. 1¼	13. 2½	W.S.W.	S.W.		22½
13. 2¾	13. 4½	S.W.	W.S.W.	22½	
13. 11¾	13. 12	W.S.W.	S.W.		22½
13. 14¾	13. 15½	S.W.	W.S.W.	22½	
13. 18½	13. 19½	W.S.W.	S.W.		22½
14. 2	14. 3½	S.W.	W.S.W.	22½	
14. 7½	14. 9	W.S.W.	N.W.	67½	
14. 10	14. 11½	N.W.	W.S.W.		67½
14. 13¼	14. 13½	W.S.W.	W.N.W.	45	
14. 16½	14. 17¼	W.N.W.	W.S.W.		45
14. 18¼	14. 18¾	W.S.W.	W.N.W.	45	
14. 20¼	14. 20½	W.N.W.	W.S.W.		45
14. 21¼	14. 21¾	W.S.W.	W.	22½	
14. 23	14. 23½	W.	W.S.W.		22½
15. 1¾	15. 2	W.S.W.	S.W.		22½
15. 10½	15. 11	S.W.	W.S.W.	22½	
15. 12¼	15. 12½	W.S.W.	S.W.		22½
15. 17	15. 18	S.W.	S.S.W.		22½
16. 3	16. 4	S.S.W.	S.		22½
16. 7¼	16. 7½	S.	S.S.E.		22½
16. 8	16. 8½	S.S.E.	S.S.W.	45	
16. 12¾	16. 13	S.S.W.	S.W.	22½	
16. 16	16. 16½	S.W.	W.	45	
16. 17	16. 19	W.	S.W.		45
16. 22¼	16. 22¾	S.W.	W.S.W.	22½	
17. 1	17. 1¼	W.S.W.	S.W.		22½
17. 6	17. 6½	S.W.	S.S.W.		22½
17. 7	17. 9½	S.S.W.	S.W.	22½	
17. 16¾	17. 17½	S.W.	S.S.W.		22½
18. 1	18. 2	S.S.W.	S.W.	22½	
18. 14½	18. 14¾	S.W.	S.S.W.		22½
18. 19¾	18. 21½	S.S.W.	S.W.	22½	
19. 4¼	19. 4½	S.W.	S.		45
19. 7½	19. 7¾	S.	N.		180
19. 8½	19. 9½	N.	S.E.	135	
19. 12¾	19. 13	S.E.	S.S.E.	22½	
19. 16½	19. 18	S.S.E.	E.		67½
19. 19¼	19. 20	E.	E.S.E.	22½	
19. 23½	20. 0½	E.S.E.	W.	157½	
20. 4¼	20. 5¼	W.	W.S.W.		22½
20. 7	20. 7½	W.S.W.	W.	22½	
20. 19	20. 20	W.	W.S.W.		22½
20. 22	20. 23	W.S.W.	S.W.		22½
21. 5½	21. 6	S.W.	E.N.E.		157½
21. 7¾	21. 9¼	E.N.E.	E.S.E.	45	

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

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
April—*cont.*				°	°
d h	d h				
21. 10¼	21. 11	E.S.E.	E.		22½
22. 3	22. 4	E.	N.N.W.	247½	
22. 4½	22. 5½	N.N.W.	S.W.	247½	
22. 9½	22. 9¾	S.W.	S.S.W.		22½
22. 15¾	22. 16	S.S.W.	S.		22½
22. 20	22. 22	S.	S.S.W.	22½	
23. 7	23. 9	S.S.W.	S.W.	22½	
23. 20	23. 22	S.W.	S.		45
24. 8	24. 9¾	S.	S.W.	45	
25. 18½	25. 19½	S.W.	S.		45
25. 23	25. 23¼	S.	S.S.W.	22½	
26. 0¼	26. 0½	S.S.W.	S.		22½
26. 7½	26. 9¾	S.	S.W.	45	
26. 15¼	26. 15½	S.W.	S.S.W.		22½
26. 17	26. 17¼	S.S.W.	S.W.	22½	
26. 19	26. 19¾	S.W.	S.S.E.		67½
26. 20¾	26. 21¼	S.S.E.	S.E.		22½
26. 23¼	27. 0¼	S.E.	S.S.E.	22½	
27. 1½	27. 3	S.S.E.	S.S.W.	45	
27. 9	27. 9½	S.S.W.	S.W.	22½	
27. 12	27. 12½	S.W.	S.S.W.		22½
27. 14	27. 14¾	S.S.W.	S.W.	22½	
27. 16¾	27. 17	S.W.	W.S.W.	22½	
27. 21¾	27. 22	W.S.W.	W.	22½	
27. 23	27. 23¾	W.	W.S.W.		22½
28. 2	28. 2½	W.S.W.	S.W.		22½
28. 9¼	28. 10	S.W.	W.S.W.	22½	
28. 18¼	28. 18½	W.S.W.	S.W.		22½
28. 19¼	28. 20¼	S.W.	W.	45	
28. 20¾	28. 23	W.	S.W.		45
29. 5¾	29. 7¾	S.W.	W.S.W.	22½	
29. 11¼	29. 11½	W.S.W.	S.W.		22½
29. 16	29. 17½	S.W.	S.		45
29. 18¼	29. 21	S.	W.S.W.	67½	
29. 21½	29. 22½	W.S.W.	N.N.W.	90	
30. 4	30. 5	N.N.W.	N.W.		22½
30. 7	30. 7¾	N.W.	N.N.W.	22½	
30. 9	30. 9¼	N.N.W.	W.		67½
30. 9¾	30. 10	W.	N.N.W.	67½	
30. 11½	30. 12	N.N.W.	W.		67½
30. 12½	30. 12¾	W.	N.N.W.	67½	
30. 13¼	30. 14¼	N.N.W.	W.N.W.		45
30. 15¾	30. 16	W.N.W.	W.S.W.		45
30. 17½	30. 18	W.S.W.	N.N.W.	90	
30. 18¼	30. 20	N.N.W.	S.W.		112½
30. 20¼	30. 22	S.W.	N.W.	90	
30. 22½	30. 22¾	N.W.	W.		45
			Sums	4005	2542½
May.					
1. 1¾	1. 2	W.	N.N.W.	67½	
1. 2¼	1. 2½	N.N.W.	W.		67½
1. 5	1. 7	W.	N.N.W.	67½	
1. 16½	1. 17	N.N.W.	N.W.		22½
1. 17¾	1. 18	N.W.	N.N.W.	22½	
1. 20¾	1. 21½	N.N.W.	N.W.		22½
2. 1¾	2. 2½	N.W.	W.N.W.		22½
2. 4	2. 4¾	W.N.W.	W.S.W.		45
2. 5¼	2. 6½	W.S.W.	N.N.W.	90	
2. 11½	2. 12	N.N.W.	N.	22½	
2. 16¼	2. 18¼	N.	E.	90	
2. 19½	2. 20	E.	S.E.	45	
2. 23	3. 0½	S.E.	S.S.E.	22½	
3. 2¾	3. 4	S.S.E.	S.	22½	
3. 7	3. 8½	S.	S.W.	45	
3. 9	3. 9¼	S.W.	S.		45
3. 12	3. 12¼	S.	S.E.		45
3. 18½	3. 19	S.E.	E.S.E.		22½
4. 7	4. 9	E.S.E.	S.E.	22½	
4. 11¾	4. 12½	S.E.	E.		45
5. 2½	5. 3	E.	E.N.E.		22½
5. 8½	5. 9½	E.N.E.	E.	22½	
5. 11	5. 11¼	E.	E.N.E.		22½
6. 1¼	6. 1½	E.N.E.	E.	22½	
6. 15	6. 17	E.	E.N.E.		22½
7. 6¾	7. 8½	E.N.E.	E.	22½	
7. 15½	7. 16½	E.	E.N.E.		22½
8. 7	8. 8½	E.N.E.	E.	22½	
8. 14	8. 14½	E.	E.N.E.		22½
8. 19¼	8. 19½	E.N.E.	E.	22½	
9. 1½	9. 1¾	E.	N.E.		45
9. 3	9. 3¼	N.E.	N.N.E.		22½
9. 5½	9. 5¾	N.N.E.	N.N.W.		45
9. 8½	9. 8¾	N.N.W.	N.	22½	
9. 17¾	9. 18	N.	N.N.E.	22½	
10. 0¼	10. 0½	N.N.E.	N.E.	22½	
10. 2	10. 2½	N.E.	N.N.E.		22½
10. 7¾	10. 8	N.N.E.	N.E.	22½	
10. 8¾	10. 9	N.E.	N.		45
10. 17	10. 17¼	N.	N.N.E.	22½	
10. 21	10. 22	N.N.E.	N.E.	22½	
11. 0½	11. 0¾	N.E.	S.	135	
11. 4	11. 4¼	S.	S.W.	45	
11. 15¾	11. 16¼	S.W.	S.S.W.		22½
11. 21½	11. 22¼	S.S.W.	S.W.	22½	
12. 8¼	12. 8½	S.W.	W.S.W.	22½	
12. 10	12. 10½	W.S.W.	W.	22½	
12. 13¼	12. 13½	W.	W.N.W.	22½	
12. 14¼	12. 14½	W.N.W.	W.S.W.		45
12. 15	12. 17	W.S.W.	N.N.W.	90	
12. 20¼	12. 21	N.N.W.	N.	22½	
13. 12	13. 12¼	N.	N.N.E.	22½	
13. 15¼	13. 15½	N.N.E.	N.E.	22½	
13. 20¼	13. 21	N.E.	E.	45	
13. 23	13. 23¼	E.	N.E.		45
14. 2	14. 3½	N.E.	E.	45	
14. 5	14. 6	E.	S.	90	
14. 7	14. 8¼	S.	S.E.		45
14. 11	14. 11½	S.E.	S.W.	90	
14. 14½	14. 14¾	S.W.	S.S.W.		22½
14. 20½	14. 22¼	S.S.W.	W.S.W.	45	
14. 23	14. 23¾	W.S.W.	N.N.W.	90	
May—*cont.*					
15. 3½	15. 4¼	N.N.W.	N.		22½
15. 8	15. 8¼	N.	N.N.E.		22½
15. 10	15. 10¼	N.N.E.	N.E.		22½
15. 12½	15. 13	N.E.	E.	45	
15. 15	15. 15½	E.	N.E.		45
15. 16	15. 17½	N.E.	E.	45	
16. 3	16. 3¾	E.	N.E.		45
16. 7	16. 9¼	N.E.	E.	45	
16. 10	16. 10¼	E.	E.N.E.		22½
16. 18½	16. 20¼	E.N.E.	N.N.E.		45
17. 0½	17. 0¾	N.N.E.	N.		22½
17. 5	17. 5½	N.	N.N.W.		22½
17. 9	17. 10	N.N.W.	N.W.		22½
17. 12	17. 12½	N.W.	W.		45
17. 13½	17. 14½	W.	N.W.	45	
17. 17¾	17. 19½	N.W.	N.E.	90	
17. 21	17. 21¼	N.E.	S.E.	90	
18. 0	18. 0¾	S.E.	S.W.	90	
18. 6¼	18. 8	S.W.	W.S.W.	22½	
18. 10	18. 10¼	W.S.W.	S.W.		22½
18. 22½	19. 0½	S.W.	W.S.W.	22½	
19. 4¾	19. 5	W.S.W.	S.		67½
19. 8	19. 9	S.	W.S.W.	67½	
19. 11¾	19. 12½	W.S.W.	S.S.W.		45
20. 0½	20. 2	S.S.W.	E.		112½
20. 2¾	20. 3¼	E.	S.E.	45	
20. 5¼	20. 5½	S.E.	N.E.		90
20. 7¾	20. 8	N.E.	E.	45	
20. 9	20. 9¼	E.	S.E.	45	
20. 13¾	20. 14	S.E.	E.		45
21. 7	21. 7½	E.	E.N.E.		22½
21. 8½	21. 9½	E.N.E.	E.	22½	
21. 15½	21. 17¼	E.	S.S.W.	112½	
21. 18½	21. 19	S.S.W.	S.W.	22½	
22. 6	22. 8	S.W.	W.S.W.	22½	
22. 9¾	22. 11½	W.S.W.	S.W.		22½
23. 6	23. 6½	S.W.	W.S.W.	22½	
23. 8¾	23. 9	W.S.W.	S.W.		22½
23. 16¾	23. 17¾	S.W.	W.N.W.	67½	
23. 20½	23. 21	W.N.W.	W.		22½
24. 0½	24. 1	W.	N.W.	45	
24. 4½	24. 5¼	N.W.	S.W.		90
24. 7½	24. 7¾	S.W.	N.N.W.	112½	
24. 9	24. 9¼	N.N.W.	N.E.	67½	
24. 10¾	24. 11	N.E.	S.E.		270
24. 18¼	24. 19	S.E.	E.S.E.		22½
24. 22½	24. 23	E.S.E.	E.		22½
25. 4¾	25. 5¼	E.	E.S.E.	22½	
25. 11¼	25. 12½	E.S.E.	S.W.	112½	
25. 15	25. 15½	S.W.	S.S.W.		22½
25. 18	25. 18¼	S.S.W.	S.W.	22½	
26. 0½	26. 4	S.W.	S.		45
26. 8½	26. 9½	S.	S.S.E.		22½
26. 11½	26. 12½	S.S.E.	S.S.W.	45	
26. 15	26. 15½	S.S.W.	S.W.	22½	
26. 18½	26. 19½	S.W.	S.S.W.		22½
27. 12¼	27. 12½	S.S.W.	S.W.	22½	
27. 13¼	27. 13½	S.W.	S.S.W.		22½
27. 17	27. 17¼	S.S.W.	S.W.	22½	

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

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
May—*cont.*					
d h	d h				
28. 1¼	28. 2	S.W.	W.S.W.	22½	
28. 12¼	28. 13½	W.S.W.	S.W.		22½
29. 0	29. 1	S.W.	S.S.W.		22½
29. 4¾	29. 7½	S.S.W.	W.S.W.	45	
29. 11¼	29. 11½	W.S.W.	W.	22½	
29. 13½	29. 13¾	W.	N.W.	45	
29. 15	29. 15¼	N.W.	W.		45
29. 16½	29. 16¾	W.	W.S.W.		22½
29. 23½	30. 0½	W.S.W.	S.W.		22½
30. 18¼	30. 18¾	S.W.	S.S.W.		22½
			Sums	3262½	2250
June.					
1. 4¾	1. 5¼	S.S.W.	N.N.E.		180
1. 7	1. 7¼	N.N.E.	N.N.W.		45
1. 9¼	1. 9¾	N.N.W.	N.	22½	
1. 14	1. 14½	N.	N.N.E.	22½	
1. 19	1. 19¼	N.N.E.	N.		22½
1. 20¾	1. 21½	N.	N.N.E.	22½	
2. 13¼	2. 13½	N.N.E.	N.E.	22½	
4. 5	4. 6	N.E.	N.N.E.		22½
4. 19½	4. 22½	N.N.E.	N.E.	22½	
5. 1	5. 1½	N.E.	N.N.E.		22½
5. 3¾	5. 4	N.N.E.	N.		22½
5. 9½	5. 9¾	N.	N.N.E.	22½	
5. 10¾	5. 11	N.N.E.	N.		22½
5. 14¾	5. 15¾	N.	N.E.	45	
5. 17½	5. 17¾	N.E.	E.	45	
5. 20½	5. 21½	E.	S.E.	45	
6. 1½	6. 2	S.E.	E.		45
6. 5¼	6. 7	E.	N.E.		45
6. 7¾	6. 8	N.E.	E.N.E.	22½	
7. 5	7. 6½	E.N.E.	N.E.		22½
7. 8	7. 8½	N.E.	E.N.E.	22½	
7. 9½	7. 9¾	E.N.E.	N.E.		22½
7. 15½	7. 15¾	N.E.	N.N.E.		22½
7. 16¾	7. 20½	N.N.E.	S.E.	112½	
7. 22½	7. 23¾	S.E.	S.	45	
8. 0¼	8. 1	S.	S.W.	45	
8. 5¼	8. 8¼	S.W.	N.W.	90	
8. 17¼	8. 17½	N.W.	N.N.W.	22½	
8. 23	8. 23¾	N.N.W.	N.W.		22½
9. 4¼	9. 4¾	N.W.	N.N.W.	22½	
9. 10½	9. 10¾	N.N.W.	N.	22½	
9. 15	9. 15¾	N.	E.S.E.	112½	
9. 17¼	9. 17¾	E.S.E.	S.E.	22½	
9. 22¼	9. 23¼	S.E.	S.W.		270
9. 23½	9. 23¾	S.W.	N.N.W.	112½	
10. 8¾	10. 10¾	N.N.W.	E.N.E.	90	
10. 15½	10. 16	E.N.E.	N.N.E.		45
10. 19¾	10. 20	N.N.E.	E.	67½	
10. 21½	11. 2	E.	N.N.W.	112½	
11. 6	11. 6½	N.N.W.	N.	22½	
June—*cont.*					
11. 9	11. 9½	N.	N.N.W.	22½	
11. 13½	11. 14¼	N.N.W.	N.E.	67½	
11. 16	11. 16¼	N.E.	N.N.E.	22½	
11. 19¾	11. 20	N.N.E.	N.N.W.	45	
11. 20½	11. 20¾	N.N.W.	N.	22½	
11. 22¼	11. 22½	N.	N.N.E.	22½	
12. 0	12. 0¼	N.N.E.	N.	22½	
12. 12½	12. 13	N.	N.E.	45	
12. 13¼	12. 14	N.E.	N.	45	
12. 15½	12. 15¾	N.	S.S.E.	157½	
12. 16½	12. 17	S.S.E.	N.	157½	
13. 1½	13. 2	N.	N.N.W.	22½	
13. 10¼	13. 11½	N.N.W.	N.	22½	
13. 14½	13. 14¾	N.	N.N.W.	22½	
13. 19¼	13. 19½	N.N.W.	N.E.	67½	
13. 22½	13. 22¾	N.E.	S.W.	180	
13. 23½	14. 0½	S.W.	E.	225	
14. 12	14. 13½	E.	N.E.	45	
14. 17	14. 17¼	N.E.	E.N.E.	22½	
14. 18¼	14. 19	E.N.E.	E.	22½	
15. 4¾	15. 5	E.	N.E.	45	
15. 19	15. 19½	N.E.	N.	45	
15. 20½	15. 20¾	N.	S.E.	135	
15. 21½	15. 23¼	S.E.	N.E.	112½	
16. 2½	16. 3	N.E.	N.	22½	
16. 5¼	16. 5½	N.	N.N.W.	22½	
16. 8¾	16. 9½	N.N.W.	N.	22½	
16. 16¼	16. 16½	N.	N.N.W.	22½	
16. 18¼	16. 20¼	N.N.W.	N.N.E.	45	
16. 22½	16. 22¾	N.N.E.	N.	22½	
17. 1¼	17. 1½	N.	N.N.E.	22½	
17. 2½	17. 2¾	N.N.E.	N.	22½	
17. 10¼	17. 10½	N.	N.N.E.	22½	
17. 12	17. 12½	N.N.E.	E.N.E.	45	
17. 17¼	17. 17½	E.N.E.	N.N.E.	45	
17. 21¼	17. 22½	N.N.E.	N.N.W.	45	
18. 11¾	18. 12	N.N.W.	N.	22½	
18. 15	18. 15½	N.	N.N.W.	22½	
18. 22¼	18. 22½	N.N.W.	S.W.	112½	
19. 12¼	19. 13¼	S.W.	W.S.W.	22½	
19. 15¼	19. 15¾	W.S.W.	S.W.	22½	
20. 6½	20. 8¼	S.W.	W.S.W.	22½	
20. 9¼	20. 9¾	W.S.W.	S.W.	22½	
20. 13¼	20. 14½	S.W.	S.S.W.	22½	
20. 16¼	20. 17¼	S.S.W.	S.W.	22½	
20. 19½	20. 20½	S.W.	S.S.W.	22½	
21. 15¼	21. 15¾	S.S.W.	S.W.	22½	
21. 18½	21. 20	S.W.	S.	45	
21. 22¾	21. 23½	S.	S.S.E.	22½	
22. 0	22. 1	S.S.E.	S.	22½	
22. 5¼	22. 7½	S.	S.W.	45	
22. 13	22. 13½	S.W.	S.S.W.	22½	
22. 14½	22. 15½	S.S.W.	S.W.	22½	
22. 20	22. 20½	S.W.	S.S.W.	22½	
23. 0¼	23. 0¾	S.S.W.	S.	22½	
23. 5½	23. 7	S.	S.S.W.	22½	
23. 11	23. 12	S.S.W.	S.	22½	
23. 19	23. 20¾	S.	S.E.	45	
24. 1¼	24. 2½	S.E.	E.S.E.	22½	
June—*cont.*					
24. 4¼	24. 4½	E.S.E.	S.S.E.	45	
24. 5¾	24. 6¾	S.S.E.	E.N.E.		90
24. 6¾	24. 8¾	E.N.E.	N.W.	247½	
24. 9¼	24. 9½	N.W.	S.W.		90
24. 14½	24. 15½	S.W.	W.N.W.	67½	
24. 15¾	24. 16½	W.N.W.	S.W.		67½
24. 16½	24. 17¼	S.W.	N.W.	90	
24. 18¼	24. 18¾	N.W.	W.		45
24. 21	24. 21½	W.	W.S.W.		22½
24. 23	24. 23¼	W.S.W.	W.N.W.	45	
25. 0½	25. 1	W.N.W.	W.		22½
25. 5½	25. 7	W.	W.S.W.		22½
25. 11¾	25. 12	W.S.W.	W.N.W.	45	
25. 13¼	25. 13½	W.N.W.	W.		22½
25. 16½	25. 18	W.	N.N.W.	67½	
25. 23½	26. 2¼	N.N.W.	N.W.		22½
26. 9½	26. 10½	N.W.	N.N.W.	22½	
26. 16½	26. 16¾	N.N.W.	W.S.W.		90
26. 21	26. 22	W.S.W.	S.W.		22½
27. 3¼	27. 4¼	S.W.	W.S.W.	22½	
27. 6¾	27. 7	W.S.W.	N.N.W.	90	
27. 8¼	27. 9	N.N.W.	N.E.	67½	
27. 10¼	27. 11¼	N.E.	S.W.	180	
27. 13½	27. 13¾	S.W.	W.S.W.	22½	
27. 16¼	27. 16½	W.S.W.	N.	112½	
27. 17¼	27. 18	N.	S.E.	135	
27. 19¾	27. 19¾	S.E.	S.W.	90	
27. 20	27. 21	S.W.	S.S.W.		22½
28. 3½	28. 5	S.S.W.	S.W.	22½	
29. 7	29. 9½	S.W.	N.E.	180	
29. 14½	29. 14¾	N.E.	E.N.E.	22½	
29. 15¾	29. 16½	E.N.E.	N.E.		22½
29. 20	29. 20½	N.E.	N.		45
29. 22¾	29. 23	N.	N.N.E.	22½	
30. 0¼	30. 0½	N.N.E.	N.		22½
30. 4	30. 5½	N.	N.W.		45
30. 7½	30. 8	N.W.	N.N.W.	22½	
30. 13	30. 13½	N.N.W.	N.	22½	
30. 20¾	30. 21½	N.	N.N.W.		22½
			Sums	4117½	2902½
July.					
1. 3½	1. 4	N.N.W.	N.W.		22½
1. 6¼	1. 6½	N.W.	N.N.W.	22½	
1. 17	1. 17½	N.N.W.	N.	22½	
1. 19½	1. 19¾	N.	N.N.E.	22½	
1. 21½	1. 21¾	N.N.E.	N.E.	22½	
1. 23¼	1. 23¾	N.E.	N.N.E.		22½
2. 1½	2. 1¾	N.N.E.	N.		22½
2. 2¾	2. 3	N.	N.N.E.	22½	
2. 4¼	2. 4¾	N.N.E.	N.N.W.		45
2. 6½	2. 6¾	N.N.W.	N.	22½	
2. 11¼	2. 11½	N.	N.E.	45	

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

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
July—*cont.*					
d h	d h				
2. 15½	2. 16½	N.E.	S.E.	90	
2. 20¾	2. 22¼	S.E.	S.	45	
3. 0	3. 3	S.	S.S.W.	22½	
3. 5	3. 7	S.S.W.	S.W.	22½	
4. 6	4. 7	S.W.	W.S.W.	22½	
4. 10¼	4. 11	W.S.W.	N.	112½	
5. 1¾	5. 2	N.	W.S.W.		112½
5. 4	5. 5	W.S.W.	S.S.W.		45
5. 5¾	5. 6	S.S.W.	W.S.W.	45	
5. 8½	5. 9	W.S.W.	S.W.	22½	
5. 20	5. 21½	S.W.	S.S.W.		22½
6. 5½	6. 6½	S.S.W.	S.W.	22½	
6. 10½	6. 11¼	S.W.	W.S.W.	22½	
6. 12¾	6. 14¼	W.S.W.	S.W.		22½
6. 19¼	6. 20½	S.W.	W.	45	
6. 21½	6. 22	W.	N.W.	45	
6. 22¾	6. 23	N.W.	W.		45
7. 1¼	7. 1¾	W.	W.N.W.	22½	
7. 6½	7. 7½	W.N.W.	N.W.	22½	
7. 9½	7. 11½	N.W.	N.N.W.	22½	
7. 15½	7. 16	N.N.W.	W.N.W.		45
7. 16	7. 16½	W.N.W.	N.	67½	
7. 17¼	7. 17½	N.	W.		90
7. 18	7. 18½	W.	N.W.	45	
7. 21	7. 21½	N.W.	W.N.W.		22½
7. 23½	7. 23¾	W.N.W.	N.N.W.	45	
8. 18½	8. 20¼	N.N.W.	N.W.		22½
9. 0¾	9. 2	N.W.	W.		45
9. 4	9. 6	W.	N.W.	45	
9. 8½	9. 11¾	N.W.	W.S.W.		67½
9. 18¼	9. 19	W.S.W.	S.W.		22½
10. 2¼	10. 3	S.W.	W.N.W.	67½	
10. 4	10. 4¼	W.N.W.	W.		22½
10. 7¼	10. 7½	W.	N.W.	45	
10. 11¾	10. 12	N.W.	W.N.W.		22½
10. 14	10. 15	W.N.W.	N.E.	112½	
10. 16½	10. 17½	N.E.	N.N.W.		67½
10. 22	11. 4½	N.N.W.	W.S.W.		90
11. 7	11. 7¾	W.S.W.	N.N.W.	90	
12. 7	12. 11	N.N.W.	N.	22½	
12. 18¼	12. 18½	N.	S.S.E.	157½	
12. 20½	12. 21¼	S.S.E.	S.	22½	
12. 23½	13. 0¼	S.	S.W.	45	
13. 5	13. 5½	S.W.	W.S.W.	22½	
13. 11	13. 12	W.S.W.	S.W.		22½
13. 22	14. 1	S.W.	W.S.W.	22½	
14. 15¾	14. 16	W.S.W.	W.	22½	
15. 0	15. 1¼	W.	W.S.W.		22½
15. 11¾	15. 12	W.S.W.	S.W.		22½
15. 15½	15. 17	S.W.	W.	45	
15. 18	15. 19½	W.	S.W.		45
16. 11¼	16. 13¼	S.W.	W.S.W.	22½	
16. 16	16. 17	W.S.W.	W.	22½	
17. 4	17. 5½	W.	W.S.W.		22½
17. 8¼	17. 8½	W.S.W.	W.	22½	
17. 11	17. 11¾	W.	W.N.W.	22½	
17. 14¼	17. 15½	W.N.W.	W.S.W.		45
17. 18¼	17. 18½	W.S.W.	W.	22½	
17. 23	18. 1	W.	W.S.W.		22½
July—*cont.*					
18. 11¾	18. 12	W.S.W.	W.	22½	
18. 18¼	18. 18½	W.	W.S.W.		22½
18. 19¾	18. 20	W.S.W.	W.	22½	
19. 0¼	19. 0½	W.	N.W.	45	
19. 2	19. 2½	N.W.	N.	45	
19. 11½	19. 12½	N.	N.W.		45
19. 17¼	19. 17½	N.W.	N.N.W.	22½	
19. 19	19. 19¼	N.N.W.	N.	22½	
19. 22	19. 23	N.	N.N.W.		22½
20. 2	20. 3	N.N.W.	S.W.		112½
20. 5	20. 7	S.W.	W.	45	
20. 12	20. 12¼	W.	W.S.W.		22½
20. 21¼	20. 22	W.S.W.	S.W.		22½
21. 0½	21. 1	S.W.	W.S.W.	22½	
21. 2	21. 2½	W.S.W.	S.W.		22½
21. 20	21. 21½	S.W.	W.S.W.	22½	
21. 23½	22. 1	W.S.W.	S.W.		22½
23. 0¼	23. 0½	S.W.	W.S.W.	22½	
23. 1½	23. 3¾	W.S.W.	S.W.		22½
24. 21½	24. 22½	S.W.	S.S.W.		22½
25. 3¾	25. 4½	S.S.W.	S.		22½
25. 6½	25. 8½	S.	S.S.W.	22½	
25. 14	25. 16½	S.S.W.	S.W.	22½	
25. 21¼	25. 22	S.W.	W.S.W.	22½	
25. 23¼	26. 0¼	W.S.W.	S.W.		22½
26. 7	26. 7¾	S.W.	W.S.W.	22½	
26. 14½	26. 15¼	W.S.W.	S.W.		22½
26. 16½	26. 17	S.W.	W.S.W.	22½	
26. 19	26. 19½	W.S.W.	S.W.		22½
27. 4½	27. 5½	S.W.	S.S.W.		22½
27. 14¼	27. 16¼	S.S.W.	S.S.E.	45	
27. 20	27. 20½	S.S.E.	S.	22½	
27. 22	28. 0¾	S.	S.W.	45	
28. 2¼	28. 6	S.W.	N.	135	
28. 11½	28. 11¾	N.	N.N.W.		22½
28. 13	28. 13½	N.N.W.	N.W.		22½
28. 19	28. 20¼	N.W.	W.S.W.		67½
29. 1	29. 2	W.S.W.	S.W.		22½
29. 5½	29. 6½	S.W.	W.S.W.	22½	
29. 19¼	29. 20½	W.S.W.	S.W.		22½
29. 22	30. 0½	S.W.	W.S.W.	22½	
30. 7	30. 9	W.S.W.	S.W.		22½
30. 11½	30. 12	S.W.	W.S.W.	22½	
30. 13¼	30. 13½	W.S.W.	N.W.	67½	
30. 15½	30. 16½	N.W.	W.N.W.		22½
30. 20	30. 22½	W.N.W.	S.W.		67½
31. 14¼	31. 16	S.W.	W.	45	
31. 17¼	31. 17½	W.	W.S.W.		22½
			Sums	2520	1890
August.					
1. 2½	1. 3	W.S.W.	N.E.	157½	
1. 6¾	1. 8	N.E.	S.E.	90	
Aug.—*cont.*					
d h	d h				
1. 13	1. 13¼	S.E.	S.W.	90	
1. 17¾	1. 18¼	S.W.	W.N.W.	67½	
1. 19½	1. 19¾	W.N.W.	S.W.		67½
1. 23	2. 1½	S.W.	N.	135	
2. 2	2. 2½	N.	N.N.W.		22½
2. 4½	2. 4¾	N.N.W.	N.W.		22½
2. 7½	2. 8	N.W.	N.N.W.	22½	
2. 10	2. 10½	N.N.W.	N.	22½	
3. 12	3. 12½	N.	N.N.W.		22½
3. 19¼	3. 19½	N.N.W.	S.W.	247½	
3. 20½	3. 22	S.W.	S.S.W.		22½
4. 0½	4. 2½	S.S.W.	S.W.	22½	
5. 10	5. 11	S.W.	N.N.E.	157½	
5. 13	5. 13¼	N.N.E.	E.N.E.	45	
5. 14½	5. 14¾	E.N.E.	E.S.E.	45	
6. 0¾	6. 2½	E.S.E.	E.		22½
6. 6¾	6. 7	E.	N.E.		45
6. 11½	6. 12	N.E.	E.N.E.	22½	
6. 14¼	6. 14¾	E.N.E.	E.S.E.	45	
6. 21¼	6. 22	E.S.E.	E.		22½
6. 23¼	6. 23½	E.	N.E.		45
7. 0¾	7. 1	N.E.	E.	45	
7. 3½	7. 3¾	E.	N.E.		45
7. 8½	7. 9½	N.E.	E.N.E.	22½	
7. 12¼	7. 12½	E.N.E.	E.	22½	
7. 13½	7. 13¾	E.	E.S.E.	22½	
8. 4¼	8. 4½	E.S.E.	N.E.		67½
8. 8¼	8. 8½	N.E.	E.N.E.	22½	
8. 12¾	8. 13	E.N.E.	E.	22½	
8. 21¾	8. 22	E.	E.N.E.		22½
9. 2½	9. 3	E.N.E.	N.E.		22½
9. 18¼	9. 19	N.E.	E.S.E.	67½	
9. 21¼	9. 21½	E.S.E.	N.E.		67½
10. 2	10. 2¾	N.E.	N.N.W.		67½
10. 4½	10. 5	N.N.W.	N.E.	67½	
10. 15	10. 15½	N.E.	E.S.E.	67½	
10. 17	10. 17¼	E.S.E.	S.E.	22½	
10. 19¼	10. 19½	S.E.	E.S.E.		22½
11. 3	11. 3½	E.S.E.	S.S.W.	90	
11. 5	11. 5¼	S.S.W.	S.S.E.		45
11. 6½	11. 7¼	S.S.E.	S.W.	67½	
11. 12½	11. 12¾	S.W.	W.S.W.	22½	
11. 13¾	11. 14	W.S.W.	N.N.W.	90	
11. 14¾	11. 15¼	N.N.W.	N.W.		22½
11. 16¾	11. 17	N.W.	N.N.W.	22½	
11. 22	11. 23	N.N.W.	N.W.		22½
12. 1	12. 1¼	N.W.	N.N.W.	22½	
12. 4	12. 5¼	N.N.W.	S.S.W.		135
12. 7	12. 10½	S.S.W.	W.S.W.	45	
12. 17¾	12. 18	W.S.W.	S.W.		22½
13. 6	13. 8¾	S.W.	W.	45	
13. 10½	13. 12¼	W.	N.N.W.	67½	
13. 13½	13. 14¼	N.N.W.	N.W.		22½
13. 17¼	13. 18¾	N.W.	N.	45	
13. 22¼	14. 0	N.	N.W.		45
14. 4¾	14. 5½	N.W.	S.W.		90
14. 7	14. 9¼	S.W.	W.	45	
14. 13	14. 13¼	W.	W.N.W.	22½	
14. 15	14. 15½	W.N.W.	N.W.	22½	

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.
Aug.—*cont.*				°	°	Aug.—*cont.*				°	°	Sept.—*cont.*				°	°
d h	d h					d h	d h					d h	d h				
14. 17½	14. 17¾	N.W.	N.	45		27. 7	27. 7½	W.	W.S.W.		22½	7. 15¼	7. 16½	W.	N.N.W.	67½	
14. 18¾	14. 19	N.	N.W.		45	27. 11½	27. 12	W.S.W.	W.	22½		8. 4½	8. 4¾	N.N.W.	W.S.W.		90
14. 20½	14. 21¼	N.W.	S.W.		90	27. 15½	27. 17¾	W.	N.	90		8. 7	8. 8	W.S.W.	N.	112½	
14. 23¼	14. 23½	S.W.	E.S.E.		112½	28. 3	28. 3¼	N.	W.S.W.		112½	8. 15	8. 15½	N.	N.N.E.	22½	
15. 1	15. 2¼	E.S.E.	S.S.E.	45		28. 15¼	28. 15½	W.S.W.	W.	22½		8. 19½	8. 19¾	N.N.E.	N.		22½
15. 5¼	15. 5½	S.S.E.	E.S.E.		45	28. 20½	28. 22	W.	S.W.		45	9. 6	9. 6½	N.	N.N.E.	22½	
15. 8¼	15. 9½	E.S.E.	S.S.W.	90		29. 4	29. 5½	S.W.	W.S.W.	22½		9. 14	9. 14½	N.N.E.	N.E.	22½	
15. 14	15. 14¼	S.S.W.	S.W.	22½		29. 12½	29. 13	W.S.W.	S.W.		22½	9. 15¾	9. 16½	N.E.	E.N.E.	22½	
15. 15¼	15. 15½	S.W.	S.S.W.		22½	29. 22½	30. 0¾	S.W.	W.S.W.	22½		9. 22½	9. 23½	E.N.E.	N.E.		22½
15. 21	15. 22½	S.S.W.	S.S.E.		45	30. 3¼	30. 6	W.S.W.	N.	112½		10. 17	10. 19	N.E.	N.N.E.		22½
16. 2½	16. 2¾	S.S.E.	E.S.E.		45	30. 9½	30. 10	N.	N.N.W.		22½	11. 0½	11. 1	N.N.E.	N.E.	22½	
16. 4	16. 4¼	E.S.E.	N.E.		67½	30. 13¾	30. 14	N.N.W.	N.W.		22½	11. 5½	11. 6	N.E.	E.	45	
16. 5	16. 5¼	N.E.	S.S.E.	112½		30. 17	30. 17½	N.W.	W.N.W.		22½	11. 9	11. 9¼	E.	S.E.	45	
16. 7	16. 8½	S.S.E.	S.W.	67½		30. 18½	30. 19½	W.N.W.	W.S.W.		45	11. 18½	11. 18¾	S.E.	E.		45
16. 12½	16. 12¾	S.W.	S.S.W.		22½	31. 2	31. 3½	W.S.W.	W.N.W.	45		11. 22¾	11. 23	E.	E.N.E.		22½
16. 17¾	16. 18	S.S.W.	S.W.	22½		31. 4¾	31. 5	W.N.W.	N.W.	22½		12. 2¼	12. 2½	E.N.E.	N.E.		22½
16. 21½	17. 0	S.W.	N.W.	90		31. 8¼	31. 9½	N.W.	N.N.W.	22½		12. 11¾	12. 12	N.E.	N.		45
17. 1¼	17. 1½	N.W.	W.		45	31. 14½	31. 15	N.N.W.	N.	22½		13. 2¾	13. 3	N.	N.N.W.		22½
17. 4	17. 6	W.	S.W.		45	31. 21	31. 21¼	N.	S.W.		135	13. 8½	13. 13½	N.N.W.	N.N.E.	45	
17. 12½	17. 13½	S.W.	S.		45	31. 23	31. 23¾	S.W.	W.S.W.	22½		14. 8½	14. 10	N.N.E.	N.E.	22½	
17. 17	17. 20	S.	E.		90							14. 17½	14. 17¾	N.E.	N.N.E.		22½
18. 3	18. 4	E.	S.E.	45								15. 1	15. 1½	N.N.E.	N.		22½
18. 6	18. 7	S.E.	S.	45					Sums	4275	2835	15. 5	15. 7	N.	N.E.	45	
18. 10	18. 11½	S.	S.S.W.	22½								15. 16¾	15. 17	N.E.	E.	45	
18. 12¾	18. 14¼	S.S.W.	W.	67½								15. 20	15. 21	E.	N.E.		45
18. 15¾	18. 16	W.	W.N.W.	22½								15. 22¾	15. 23½	N.E.	N.N.E.		22½
18. 18½	18. 20½	W.N.W.	S.W.		67½	September.						16. 7¾	16. 8	N.N.E.	S.E.	112½	
19. 11¼	19. 12	S.W.	W.S.W.	22½								16. 11¾	16. 13¼	S.E.	E.S.E.		22½
19. 17¼	19. 17¾	W.S.W.	S.W.		22½							16. 20½	16. 21½	E.S.E.	E.		22½
20. 23¾	21. 2¼	S.W.	N.N.W.	112½		1. 6	1. 9½	W.S.W.	N.W.	67½		17. 3	17. 3¼	E.	E.N.E.		22½
21. 4	21. 5	N.N.W.	N.W.		22½	1. 12¼	1. 12¾	N.W.	W.S.W.		67½	17. 11¼	17. 12	E.N.E.	E.	22½	
21. 11	21. 12	N.W.	W.S.W.		67½	1. 15	1. 15¼	W.S.W.	N.N.W.	90		17. 14¼	17. 14¾	E	E.N.E.		22½
21. 16	21. 16½	W.S.W.	W.	22½		1. 16¾	1. 17½	N.N.W.	W.N.W.		45	18. 0¼	18. 1½	E.N.E.	N.N.E.		45
21. 17¾	21. 18½	W.	N.N.W.	67½		1. 20	1. 20¼	W.N.W.	N.W.	22½		18. 8	18. 8¼	N.N.E.	N.E.	22½	
21. 22¼	21. 22¾	N.N.W.	W.S.W.		90	2. 0	2. 1	N.W.	N.N.W.	22½		18. 10	18. 10¼	N.E.	N.N.E.		22½
21. 23¾	22. 0	W.S.W.	W.N.W.	45		2. 4	2. 4¼	N.N.W.	S.W.		112½	18. 14	18. 14¼	N.N.E.	N.		22½
22. 1½	22. 5¾	W.N.W.	S.W.		67½	2. 7¾	2. 8¾	S.W.	S.		45	18. 20	18. 20¼	N.	N.N.E.	22½	
22. 6½	22. 8	S.W.	W.	45		2. 10	2. 10½	S.	N.	180		19. 1¾	19. 4	N.N.E.	S.W.		157½
22. 13¾	22. 14	W.	N.W.	45		2. 14½	2. 18	N.	S.S.W.	202½		19. 5¾	19. 6	S.W.	W.S.W.	22½	
22. 17¼	22. 17½	N.W.	W.		45	2. 19½	2. 19¾	S.S.W.	S.		22½	19. 9	19. 10¼	W.S.W.	W.	22½	
22. 19	22. 20½	W.	S.W.		45	2. 20¾	2. 21½	S.	S.W.	45		19. 11½	19. 11¾	W.	W.N.W.	22½	
23. 1	23. 2½	S.W.	S.S.W.		22½	3. 7	3. 8	S.W.	W.S.W.	22½		19. 15¾	19. 16	W.N.W.	N.W.	22½	
23. 5	23. 5½	S.S.W.	S.		22½	3. 13½	3. 14	W.S.W.	W.	22½		19. 17½	19. 22	N.W.	W.S.W.		67½
23. 7	23. 8½	S.	S.W.	45		3. 18½	3. 19¾	W.	S.W.		45	20. 1¾	20. 2¾	W.S.W.	S.W.		22½
23. 11¼	23. 11½	S.W.	S.S.W.		22½	4. 6½	4. 8	S.W.	W.S.W.	22½		20. 8¼	20. 9	S.W.	W.S.W.	22½	
23. 17¼	23. 20½	S.S.W.	S.W.	22½		4. 10¾	4. 12	W.S.W.	S.W.		22½	20. 10½	20. 11½	W.S.W.	N.	112½	
24. 19½	24. 21½	S.W.	W.S.W.	22½		4. 13¼	4. 13½	S.W.	W.S.W.	22½		20. 14	20. 14¾	N.	N.N.W.		22½
25. 2¾	25. 3¼	W.S.W.	S.W.		22½	4. 15¼	4. 15½	W.S.W.	S.W.		22½	20. 16¾	20. 17½	N.N.W.	N.E.	67½	
25. 5¼	25. 5½	S.W.	W.S.W.	22½		4. 19¼	4. 20	S.W.	W.S.W.	22½		20. 19	20. 21½	N.E.	E.	45	
25. 12	25. 12½	W.S.W.	W.N.W.	45		4. 23	5. 0¼	W.S.W.	N.	112½		21. 10¾	21. 14½	E.	S.S.E.	67½	
25. 14	25. 16¼	W.N.W.	W.S.W.		45	5. 2½	5. 2¾	N.	N.N.W.		22½	21. 17	21. 18	S.S.E.	S.E.		22½
25. 16¾	25. 17	W.S.W.	W.	22½		5. 11¾	5. 12¼	N.N.W.	N.W.		22½	21. 20	21. 21	S.E.	E.S.E.		22½
25. 21¾	25. 22	W.	N.W.	45		5. 17¼	5. 17½	N.W.	W.		45	22. 1¼	22. 1½	E.S.E.	E.		22½
25. 23½	26. 0	N.W.	N.	45		5. 18¾	5. 21	W.	S.		90	22. 22¾	22. 23	E.	E.N.E.		22½
26. 1½	26. 2½	N.	N.N.W.		22½	5. 22	5. 22¼	S.	S.S.W.	22½		23. 5	23. 6	E.N.E.	N.E.		22½
26. 5½	26. 6	N.N.W.	N.	22½		6. 5¼	6. 6	S.S.W.	S.W.	22½		23. 9	23. 9¼	N.E.	W.N.W.	247½	
26. 18	26. 18¼	N.	S.S.W.	202½		6. 12¾	6. 14½	S.W.	W.S.W.	22½		23. 11¾	23. 12½	W.N.W.	S.S.E.		135
26. 23¼	27. 1¾	S.S.W.	N.N.W.	135		6. 23	7. 1½	W.S.W.	S.W.		22½	23. 15¼	23. 15½	S.S.E.	S.	22½	
27. 5¼	27. 5½	N.N.W.	W.		67½	7. 7½	7. 9½	S.W.	W.	45		23. 17¼	23. 17½	S.	S.S.W.	22½	

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

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
Sept.—*cont.*					
d h	d h				
24. 2½	24. 2¾	S.S.W.	S.		22½
24. 7½	24. 7¾	S.	S.S.W.	22½	
24. 20	24. 21½	S.S.W.	S.W.	22½	
25. 1	25. 2	S.W.	S.S.W.		22½
25. 7	25. 10	S.S.W.	W.S.W.	45	
25. 15¾	25. 16¼	W.S.W.	N.W.	67½	
25. 19½	25. 20½	N.W.	N.N.W.	22½	
25. 23	25. 23¼	N.N.W.	N.	22½	
26. 0½	26. 2	N.	N.N.W.		22½
26. 4¾	26. 5½	N.N.W.	N.	22½	
26. 19	26. 19¾	N.	N.N.E.	22½	
26. 22½	26. 22¾	N.N.E.	N.N.W.	45	
27. 8¾	27. 10¾	N.N.W.	N.E.	67½	
27. 15½	27. 16	N.E.	S.E.	90	
27. 19¾	27. 20	S.E.	S.		315
28. 3	28. 3¼	S.	S.S.E.		22½
28. 5¾	28. 7	S.S.E.	E.S.E.		45
28. 8¾	28. 9	E.S.E.	N.E.		67½
28. 11½	28. 13	N.E.	S.	135	
28. 16½	28. 17½	S.	S.S.E.		22½
29. 7¼	29. 7½	S.S.E.	S.E.		22½
29. 10	29. 10½	S.E.	E.S.E.		22½
29. 15¼	29. 15½	E.S.E.	E.		22½
29. 20¼	29. 20½	E.	N.E.		45
29. 22¾	29. 23½	N.E.	N.		45
30. 2	30. 2½	N.	E.N.E.	67½	
30. 5½	30. 7½	E.N.E.	S.		247½
30. 11½	30. 14½	S.	S.W.	45	
30. 18¼	30. 18½	S.W.	S.E.		90
30. 23¼	30. 23½	S.E.	E.S.E.		22½
			Sums	3037½	2812½
October.					
1. 1	1. 1½	E.S.E.	E.N.E.		45
1. 4	1. 5½	E.N.E.	S.E.	67½	
1. 8¼	1. 9	S.E.	S.S.E.	22½	
1. 11¼	1. 11½	S.S.E.	S.E.		22½
1. 15	1. 15¼	S.E.	E.N.E.		67½
1. 17	1. 17¼	E.N.E.	E.S.E.	45	
1. 19	1. 19½	E.S.E.	S.E.	22½	
1. 22¼	2. 3	S.E.	S.W.	90	
2. 5	2. 5¼	S.W.	S.S.W.		22½
2. 7¾	2. 8	S.S.W.	S.W.	22½	
2. 8¾	2. 9	S.W.	S.	45	
2. 9¾	2. 10½	S.	W.	90	
2. 12½	2. 13	W.	W.S.W.		22½
2. 18	2. 18½	W.S.W.	S.		67½
2. 19½	2. 19¾	S.	S.W.	45	
3. 2	3. 6	S.W.	S.		45
3. 11	3. 13	S.	S.W.	45	
4. 8	4. 10	S.W.	W.S.W.	22½	
4. 12½	4. 13	W.S.W.	S.W.		22½
5. 2	5. 2¾	S.W.	S.S.W.		22½
Oct.—*cont.*					
d h	d h				
5. 9	5. 10	S.S.W.	S.W.	22½	
5. 18	5. 19½	S.W.	W.S.W.	22½	
6. 13½	6. 15	W.S.W.	S.W.		22½
6. 17	6. 18	S.W.	S.S.W.		22½
6. 23½	7. 1	S.S.W.	S.		22½
7. 9¼	7. 10½	S.	S.S.W.	22½	
7. 14	7. 15	S.S.W.	S.		22½
7. 19	7. 21	S.	S.S.W.	22½	
8. 7	8. 7¼	S.S.W.	S.W.	22½	
8. 12	8. 13	S.W.	W.S.W.	22½	
8. 14¾	8. 15½	W.S.W.	N.W.	67½	
8. 20¼	8. 22	N.W.	W.		45
9. 3	9. 4½	W.	S.W.		45
9. 14	9. 15½	S.W.	S.S.W.		22½
9. 19	9. 20	S.S.W.	S.		22½
10. 10	10. 10¼	S.	S.S.W.	22½	
10. 15½	10. 16	S.S.W.	S.		22½
11. 20½	11. 21½	S.	S.W.	45	
12. 5	12. 7¼	S.W.	S.		45
12. 9	12. 10	S.	S.S.W.	22½	
12. 17	12. 18	S.S.W.	S.		22½
13. 9½	13. 10	S.	S.S.W.	22½	
13. 14	13. 15¼	S.S.W.	S.W.	22½	
14. 5	14. 6	S.W.	S.S.W.		22½
14. 8¼	14. 10¼	S.S.W.	W.S.W.	45	
14. 12¾	14. 13	W.S.W.	S.W.		22½
14. 17	14. 18	S.W.	S.S.W.		22½
14. 19½	14. 20	S.S.W.	S.W.	22½	
14. 23½	15. 1½	S.W.	S.S.W.		22½
15. 2½	15. 3¼	S.S.W.	S.W.	22½	
16. 11½	16. 12	S.W.	S.S.W.		22½
17. 12¼	17. 12½	S.S.W.	W.S.W.	45	
17. 14½	17. 18	W.S.W.	S.S.W.		45
17. 20	17. 21	S.S.W.	S.		22½
18. 9	18. 9¼	S.	S.S.W.	22½	
18. 11	18. 11¼	S.S.W.	S.		22½
18. 15¼	18. 15½	S.	S.S.W.	22½	
18. 20½	18. 21	S.S.W.	S.W.	22½	
19. 20	19. 21¾	S.W.	S.S.W.		22½
20. 1	20. 2	S.S.W.	S.W.	22½	
20. 11½	20. 12½	S.W.	S.S.W.		22½
20. 22¼	20. 23	S.S.W.	S.W.	22½	
21. 7½	21. 9½	S.W.	W.S.W.	22½	
21. 15¼	21. 15½	W.S.W.	S.W.		22½
21. 19¾	21. 20½	S.W.	W.S.W.	22½	
22. 0½	22. 2	W.S.W.	S.W.		22½
22. 4½	22. 6	S.W.	S.S.W.		22½
22. 10½	22. 11	S.S.W.	S.W.	22½	
23. 11¼	23. 12	S.W.	S.S.W.		22½
23. 23	24. 0	S.S.W.	S.W.	22½	
24. 1½	24. 2½	S.W.	W.	45	
24. 4	24. 5	W.	W.S.W.		22½
24. 8	24. 10	W.S.W.	W.	22½	
24. 19¾	24. 20	W.	W.S.W.		22½
25. 1¼	25. 2½	W.S.W.	S.W.		22½
25. 4½	25. 5½	S.W.	W.S.W.	22½	
25. 7¼	25. 7¾	W.S.W.	W.N.W.	45	
25. 13	25. 13¼	W.N.W.	W.		22½
25. 19½	25. 20½	W.	S.S.W.		67½
Oct.—*cont.*					
d h	d h				
26. 0¼	26. 2	S.S.W.	N.E.		157½
26. 5	26. 5½	N.E.	E.	45	
26. 20	26. 21¾	E.	N.E.		45
27. 12	27. 15	N.E.	N.N.E.		22½
28. 18½	28. 20½	N.N.E.	N.		22½
29. 5½	29. 8	N.	N.W.		45
29. 17	29. 17½	N.W.	W.		45
29. 20½	29. 22½	W.	S.W.		45
30. 10¼	30. 10½	S.W.	N.N.W.	112½	
30. 13¼	30. 13½	N.N.W.	N.N.E.	45	
30. 22¼	30. 22¾	N.N.E.	N.		22½
31. 6¾	31. 7	N.	N.N.E.	22½	
31. 21	31. 21½	N.N.E.	N.E.	22½	
			Sums	1530	1597½
November.					
1. 3	1. 3½	N.E.	N.N.E.		22½
1. 13½	1. 13¾	N.N.E.	N.E.	22½	
1. 17½	1. 19	N.E.	E.N.E.	22½	
1. 23	1. 23¾	E.N.E.	S.W.	157½	
2. 3¾	2. 4	S.W.	S.		45
2. 5¾	2. 6	S.	S.W.	45	
2. 10¾	2. 11¾	S.W.	W.S.W.	22½	
3. 2¾	3. 3½	W.S.W.	N.N.W.	90	
3. 5	3. 5¾	N.N.W.	N.	22½	
3. 6½	3. 6¾	N.	N.N.E.	22½	
3. 9½	3. 10	N.N.E.	N.N.W.		45
3. 11½	3. 12	N.N.W.	N.	22½	
3. 14	3. 14¾	N.	N.N.E.	22½	
3. 17¾	3. 18¼	N.N.E.	N.E.	22½	
4. 18½	4. 19½	N.E.	S.S.E.	112½	
5. 1	5. 1¼	S.S.E.	S.S.W.	45	
5. 3¾	5. 4	S.S.W.	E.S.E.		90
5. 7	5. 7¼	E.S.E.	S.S.E.	45	
5. 8½	5. 8¾	S.S.E.	N.E.		112½
5. 12	5. 13¼	N.E.	S.E.	90	
5. 23½	5. 23¾	S.E.	E.		45
6. 1½	6. 2	E.	S.E.	45	
6. 10	6. 12½	S.E.	S.S.W.	67½	
6. 23½	6. 23¾	S.S.W.	N.	157½	
7. 22	7. 23½	N.	N.N.W.		22½
8. 9¾	8. 11½	N.N.W.	N.N.E.	45	
8. 16½	8. 16¾	N.N.E.	N.N.W.		45
8. 19	8. 20	N.N.W.	N.	22½	
8. 21¾	8. 22	N.	W.		90
8. 23½	9. 1½	W.	S.		90
9. 3	9. 4	S.	S.W.	45	
10. 1¾	10. 2½	S.W.	W.N.W.	67½	
10. 3½	10. 4	W.N.W.	W.S.W.		45
10. 6	10. 8	W.S.W.	S.W.		22½
10. 9¼	10. 11¾	S.W.	N.W.	90	
10. 18	10. 18½	N.W.	W.N.W.		22½
10. 20¼	10. 20¾	W.N.W.	W.		22½

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

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
Nov.—*cont.*					
d h	d h				
11. 4	11. 4¼	W.	N.W.	45	
11. 15	11. 15¾	N.W.	W.		45
11. 18	11. 18½	W.	W.S.W.		22½
12. 11	12. 12	W.S.W.	W.	22½	
12. 15	12. 15½	W.	W.S.W.		22½
13. 2½	13. 3½	W.S.W.	N.W.	67½	
13. 5	13. 5½	N.W.	W.N.W.		22½
13. 6¾	13. 7	W.N.W.	W.		22½
13. 9¾	13. 10¼	W.	N.W.	45	
13. 12¼	13. 12½	N.W.	W.N.W.		22½
13. 13¾	13. 14	W.N.W.	N.W.	22½	
13. 15	13. 15¼	N.W.	W.		45
13. 16¼	13. 16½	W.	N.W.	45	
13. 17¾	13. 18	N.W.	N.N.W.	22½	
13. 22¾	13. 23	N.N.W.	S.E.	157½	
14. 4	14. 4¼	S.E.	E.		45
14. 5¼	14. 5½	E.	N.E.		45
14. 6¼	14. 6½	N.E.	E.S.E.	67½	
14. 8	14. 10½	E.S.E.	N.E.		67½
14. 11¾	14. 12½	N.E.	E.S.E.	67½	
14. 16	14. 18	E.S.E.	N.E.		67½
15. 11¾	15. 12	N.E.	N.N.E.		22½
15. 14	15. 14½	N.N.E.	N.E.	22½	
15. 17	15. 17¼	N.E.	N.N.E.		22½
15. 18¾	15. 19¼	N.N.E.	N.E.	22½	
16. 2	16. 3½	N.E.	N.N.E.		22½
16. 7	16. 7½	N.N.E.	N.E.	22½	
16. 10¼	16. 11½	N.E.	N.N.E.		22½
16. 21½	16. 22	N.N.E.	N.E.	22½	
18. 9½	18. 11¼	N.E.	E.	45	
18. 16	18. 18	E.	N.E.		45
18. 19	18. 23	N.E.	E.	45	
19. 12¼	19. 13	E.	E.N.E.		22½
19. 17¾	19. 18¼	E.N.E.	N.E.		22½
19. 21½	19. 23½	N.E.	N.		45
20. 0¾	20. 1	N.	N.N.W.		22½
20. 11½	20. 12½	N.N.W.	W.S.W.		90
20. 13½	20. 14½	W.S.W.	N.N.W.	90	
21. 4¾	21. 7	N.N.W.	W.		67½
21. 9	21. 10½	W.	N.N.W.	67½	
21. 13¾	21. 14	N.N.W.	N.	22½	
21. 23¼	21. 23½	N.	N.N.W.		22½
22. 7¼	22. 9¼	N.N.W.	N.	22½	
23. 9½	23. 10½	N.	N.N.W.		22½
23. 14¾	23. 15½	N.N.W.	W.S.W.		90
23. 16¾	23. 17¼	W.S.W.	N.W.	67½	
23. 19½	23. 19¾	N.W.	W.S.W.		67½
24. 7½	24. 8¼	W.S.W.	S.W.		22½
24. 9¼	24. 11¾	S.W.	W.	45	
24. 18¼	24. 18¾	W.	W.S.W.		22½
24. 22	24. 23¾	W.S.W.	W.	22½	
25. 5	25. 6½	W.	N.W.	45	
25. 9	25. 10½	N.W.	N.	45	
25. 15¼	25. 16½	N.	N.N.W.		22½
25. 20½	25. 20¾	N.N.W.	S.W.		112½
26. 1½	26. 2	S.W.	S.S.E.		67½
26. 3	26. 4½	S.S.E.	S.S.W.	45	
26. 7¾	26. 8	S.S.W.	S.W.	22½	
26. 10	26. 10½	S.W.	W.S.W.	22½	
26. 14	26. 14¼	W.S.W.	S.W.		22½
26. 19	26. 20	S.W.	S.		45
27. 2	27. 2¼	S.	S.S.W.	22½	
27. 7	27. 8	S.S.W.	S.	22½	
27. 11	27. 11½	S.	S.S.W.	22½	
27. 13½	27. 14½	S.S.W.	S.		22½
27. 16½	27. 18	S.	S.S.W.	22½	
28. 8¼	28. 8¾	S.S.W.	S.W.	22½	
29. 14¾	29. 15	S.W.	W.S.W.	22½	
29. 17	29. 17¼	W.S.W.	S.W.		22½
30. 2	30. 3¾	S.W.	W.S.W.	22½	
30. 4½	30. 5½	W.S.W.	S.W.		22½
			Sums	2700	2160
December.					
1. 0¼	1. 2	S.W.	W.S.W.	22½	
1. 3	1. 3½	W.S.W.	S.W.		22½
1. 8	1. 9½	S.W.	S.S.W.		22½
1. 14¼	1. 14½	S.S.W.	W.S.W.	45	
1. 17¾	1. 19½	W.S.W.	W.N.W.	45	
1. 21¼	1. 21½	W.N.W.	W.		22½
2. 2	2. 2¼	W.	W.S.W.		22½
2. 5	2. 7	W.S.W.	N.W.	67½	
2. 7½	2. 8¼	N.W.	W.S.W.		67½
2. 11½	2. 14½	W.S.W.	S.		67½
2. 16½	2. 17¾	S.	S.W.	45	
3. 4	3. 5¼	S.W.	W.S.W.	22½	
3. 15½	3. 16½	W.S.W.	S.W.		22½
4. 3½	4. 5¼	S.W.	S.		45
4. 8	4. 8½	S.	S.E.		45
4. 8¾	4. 10	S.E.	S.W.	90	
4. 17	4. 17¼	S.W.	N.N.W.	112½	
4. 20	4. 22	N.N.W.	W.		67½
4. 23¾	5. 0	W.	W.S.W.		22½
5. 1½	5. 2¼	W.S.W.	S.W.		22½
5. 15	5. 15¼	S.W.	S.		45
5. 16¾	5. 18½	S.	S.E.		45
5. 23¾	6. 0¾	S.E.	S.S.E.	22½	
6. 4¾	6. 5¾	S.S.E.	S.W.	67½	
6. 17¼	6. 18	S.W.	S.		45
6. 21	6. 22	S.	S.S.E.		22½
7. 0½	7. 1½	S.S.E.	S.W.	67½	
7. 2½	7. 2¾	S.W.	S.S.W.		22½
7. 7½	7. 10½	S.S.W.	W.S.W.	45	
7. 12¼	7. 15¼	W.S.W.	N.N.W.	90	
7. 16½	7. 17¼	N.N.W.	N.W.		22½
7. 18½	7. 19	N.W.	W.		45
7. 19¾	7. 20¾	W.	W.N.W.	22½	
7. 23	8. 4¾	W.N.W.	N.W.	22½	
8. 4¾	8. 5½	N.W.	W.N.W.		22½
8. 10	8. 10½	W.N.W.	N.W.	22½	
8. 16¼	8. 21¼	N.W.	S.W.	90	
8. 21¾	8. 22	S.W.	W.S.W.	22½	
8. 22¾	8. 23	W.S.W.	S.W.		45
9. 0	9. 1	S.W.	W.S.W.		45
9. 3½	9. 4½	W.S.W.	S.W.		22½
9. 15½	9. 16½	S.W.	S.		45
9. 20¼	9. 20¾	S.	S.S.W.	22½	
11. 7	11. 8	S.S.W.	S.		22½
11. 15½	11. 18	S.	S.S.E.		22½
11. 20½	11. 21¼	S.S.E.	S.E.		22½
12. 0	12. 3	S.E.	E.		45
12. 5	12. 5¼	E.	E.S.E.	22½	
12. 7½	12. 8½	E.S.E.	E.		22½
12. 10½	12. 10¾	E.	E.N.E.		22½
12. 12	12. 14	E.N.E.	N.N.E.		45
12. 18¼	12. 18½	N.N.E.	N.E.	22½	
12. 21½	12. 22	N.E.	E.N.E.	22½	
13. 3¼	13. 3¾	E.N.E.	N.E.		22½
13. 4½	13. 5	N.E.	E.N.E.	22½	
13. 13¾	13. 14¼	E.N.E.	N.E.		22½
13. 19	13. 19½	N.E.	E.N.E.	22½	
13. 21½	13. 22	E.N.E.	N.E.		22½
14. 4	14. 5	N.E.	E.N.E.	22½	
15. 6½	15. 7	E.N.E.	N.E.		22½
15. 15½	15. 18½	N.E.	E.S.E.	67½	
15. 21½	15. 21¾	E.S.E.	E.		22½
16. 0¾	16. 1	E.	E.S.E.	22½	
16. 1¾	16. 2	E.S.E.	E.		22½
16. 23¾	17. 0	E.	E.S.E.	22½	
17. 3	17. 4	E.S.E.	E.		22½
17. 5	17. 5½	E.	E.S.E.	22½	
17. 10½	17. 11½	E.S.E.	E.		22½
17. 19¼	17. 19½	E.	E.N.E.		22½
17. 20¾	17. 21	E.N.E.	E.	22½	
17. 22½	18. 1½	E.	N.W.		135
18. 8½	18. 8¾	N.W.	W.N.W.		22½
18. 11	18. 11½	W.N.W.	W.		22½
18. 14¾	18. 15	W.	W.S.W.		22½
18. 22½	18. 23¼	W.S.W.	S.W.		22½
19. 4¼	19. 4½	S.W.	S.		45
19. 6¾	19. 7	S.	S.S.E.		22½
19. 10	19. 11¼	S.S.E.	S.S.W.	45	
19. 14¾	19. 16¼	S.S.W.	W.S.W.	45	
19. 19¾	19. 21½	W.S.W.	N.W.	67½	
20. 0½	20. 0¾	N.W.	W.N.W.		22½
20. 3	20. 4	W.N.W.	W.S.W.		45
20. 12	20. 12½	W.S.W.	S.W.		22½
21. 11¼	21. 14	S.W.	E.		135
21. 18½	21. 19	E.	E.S.E.	22½	
22. 5	22. 10¼	E.S.E.	S.W.	112½	
23. 4	23. 4½	S.W.	S.S.W.		22½
23. 9¾	23. 10½	S.S.W.	S.W.	22½	
23. 21¼	24. 0¼	S.W.	N.W.	90	
24. 3	24. 3¾	N.W.	W.		45
24. 7¼	24. 9¼	W.	S.W.		45
24. 11	24. 11½	S.W.	W.S.W.	22½	
24. 12¾	24. 13½	W.S.W.	N.W.	67½	
24. 14¾	24. 15	N.W.	N.N.W.	22½	
24. 16½	24. 17½	N.N.W.	W.S.W.		90
24. 22½	24. 23¼	W.S.W.	S.W.		22½
25. 3¾	25. 4¼	S.W.	S.S.W.		22½
25. 8¼	25. 14	S.S.W.	W.N.W.	90	
25. 15¾	25. 18¼	W.N.W.	W.S.W.		45

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

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
	Dec.—*cont.*			°	°
d h	d h				
25. 21	25. 23	W.S.W.	S.S.W.		45
26. 3	26. 5½	S.S.W.	S.W.	22½	
26. 12¼	26. 13½	S.W.	W.S.W.	22½	
26. 17¼	26. 17¾	W.S.W.	S.W.		22½
27. 1¼	27. 2	S.W.	W.S.W.	22½	
27. 12	27. 15½	W.S.W.	S.S.W.		45
27. 18½	27. 20	S.S.W.	S.W.	22½	
28. 6	28. 8	S.W.	W.S.W.	22½	
28. 19½	28. 21½	W.S.W.	N.W.	67½	
29. 1¼	29. 1½	N.W.	N.N.W.	22½	
	Dec.—*cont.*				
d h	d h				
29. 7½	29. 8	N.N.W.	N.	22½	
29. 17¾	29. 18	N.	N.N.E.	22½	
29. 22	29. 22¼	N.N.E.	S.S.W.	180	
30. 1¼	30. 1½	S.S.W.	W.S.W.	45	
30. 2½	30. 5½	W.S.W.	S.S.W.		45
30. 6¾	30. 7½	S.S.W.	S.W.	22½	
30. 11	30. 12¼	S.W.	S.		45
30. 13	30. 13½	S.	S.W.	45	
30. 17	30. 17¼	S.W.	S.		45
30. 19	30. 19¼	S.	S.S.W.	22½	
	Dec.—*cont.*				
d h	d h				
31. 5½	31. 5¾	S.S.W.	S.W.	22½	
31. 10	31. 12	S.W.	W.S.W.	22½	
31. 13½	31. 14¼	W.S.W.	W.	22½	
31. 22½	31. 23¾	W.	S.W.		45
			Sums	2385	2385

Excess of Motion in each Month.

1909.	Direct. °	Retrograde. °
January	720	
February	585	
March	112½	
April	1462½	
May	1012½	
June	1215	
July	630	
August	1440	
September	225	
October		67½
November	540	
December	0	

The whole excess of direct motion for the year was 7875°.

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	1909.												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	11·8	11·0	11·8	10·6	9·9	9·1	12·1	7·9	8·1	13·6	10·8	15·5	11·0
2	12·2	11·3	11·1	10·6	9·3	8·8	11·6	8·3	8·5	13·7	10·8	14·7	10·9
3	12·2	11·4	10·8	10·4	8·4	8·4	11·6	8·0	8·8	12·7	10·4	14·5	10·6
4	11·8	11·9	10·9	10·6	8·5	8·2	11·3	8·1	8·7	12·4	11·0	14·5	10·7
5	11·3	11·8	10·1	10·2	7·6	8·1	11·8	7·6	8·5	12·8	10·4	14·9	10·4
6	11·4	12·5	10·6	9·8	7·9	8·7	11·8	7·9	8·4	12·3	10·5	14·4	10·5
7	11·5	12·5	10·6	8·8	8·3	9·0	11·7	7·9	8·6	12·4	10·0	14·5	10·5
8	10·9	12·0	11·2	10·4	9·6	9·4	12·8	8·4	8·3	13·2	10·2	14·2	10·9
9	11·7	11·8	11·8	12·2	10·3	9·5	13·7	9·3	9·6	14·0	9·8	14·5	11·5
10	11·6	12·4	12·6	13·6	11·8	9·6	15·0	10·2	10·3	15·2	10·2	14·7	12·3
11	12·6	14·0	13·2	14·6	12·1	10·6	15·2	10·7	10·6	15·9	11·4	15·1	13·0
Noon	12·7	14·7	14·7	15·7	12·3	10·8	15·8	11·4	11·1	17·2	13·2	15·1	13·7
13h	14·3	16·0	16·1	17·1	14·4	11·8	15·5	11·7	11·3	17·5	14·0	16·5	14·7
14	13·9	15·0	14·6	16·3	14·5	11·0	15·3	11·6	11·0	16·8	13·6	15·5	14·1
15	13·5	14·7	15·0	17·6	15·1	12·3	15·6	11·6	11·2	17·1	13·1	15·3	14·3
16	12·5	14·4	13·9	17·4	15·9	11·9	15·9	11·7	10·1	17·1	12·6	14·5	14·0
17	12·3	13·2	13·9	16·5	15·6	11·4	16·2	12·0	10·0	16·2	12·8	14·4	13·7
18	12·6	12·6	12·1	15·5	15·0	11·1	15·5	11·1	8·8	14·9	12·4	14·8	13·0
19	12·8	12·3	12·1	13·9	13·4	10·7	14·9	9·8	9·0	15·4	11·7	15·0	12·6
20	12·7	11·9	12·8	13·1	12·8	10·0	13·5	9·2	8·9	15·5	12·0	15·3	12·3
21	12·9	12·1	13·5	11·9	11·4	9·3	12·6	8·4	9·3	14·8	11·8	15·2	11·9
22	12·5	11·3	13·1	11·4	10·7	9·2	13·2	8·6	8·9	14·6	11·1	14·4	11·6
23	12·7	11·7	13·2	10·2	10·4	9·2	13·2	8·9	9·1	14·5	11·3	14·9	11·6
Midnight	12·3	10·4	12·8	9·9	9·5	9·1	12·4	8·4	8·4	13·7	11·3	14·8	11·1
Means	12·4	12·6	12·6	12·8	11·4	9·9	13·7	9·5	9·4	14·7	11·5	14·9	12·1
Greatest Hourly Measures.....	36	43	36	32	30	30	34	28	31	36	38	56	...
Least Hourly Measures.....	0	0	0	1	0	1	2	1	0	2	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.)

1909.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	+ 292	+ 637	+ 953	+ 679	+1143	+ 373	+ 311	+ 108	+ 681	+ 62	+ 85	+ 385
2	+ 266	+ 845	+1289	+ 780	+ 785	+ 405	+ 192	+ 252	+ 590	+ 77	+ 87	+ 400
3	+ 191	+ 174	+ 908	+ 585	+ 465	+ 593	+ 237	+ 418	+ 555	+ 54	+ 54	+ 443
4	+ 299	+ 209	+1238	+ 467	+ 540	+ 436	+ 146	+ 278	+ 309	...	+ 57	+ 498
5	+ 610	+ 393	+1305	+ 582	+ 467	+ 454	+ 197	+ 260	+ 329	...	+ 224	+ 786
6	+ 483	+ 788	− 251	+ 714	+ 465	+ 247	+ 160	+ 271	+ 251	+ 236	+ 233	+ 648
7	+ 495	+ 525	+ 368	+ 709	+ 382	+ 507	+ 300	+ 271	+ 406	+ 86	+ 112	+ 735
8	+ 658	+ 563	+ 800	+1153	+ 621	+ 769	+ 206	+ 258	+ 460	+ 100	+ 249	+ 997
9	+ 776	+ 507	+ 612	+1187	+ 933	+ 593	+ 289	+ 315	+ 406	+ 216	+ 550	+1007
10	+ 297	+ 718	+ 810	...	+ 976	+ 618	+ 311	+ 328	+ 233	+ 54	+ 275	+ 275
11	+ 232	+ 509	+ 819	...	+ 892	+ 891	+ 241	+ 378	+ 102	+ 91	+ 441	+ 265
12	+ 653	+ 774	+ 885	+ 714	+ 856	+ 642	+ 248	+ 356	+ 179	+ 178	+ 223	+ 318
13	+ 486	+ 990	+1004	+ 461	+ 980	+ 560	+ 144	+ 465	+ 203	+ 133	+ 507	+ 288
14	+ 526	+ 894	+ 209	+ 731	+ 833	+ 499	+ 206	+ 379	+ 366	+ 218	+ 284	+ 420
15	+ 540	+ 768	+1031	+ 760	+ 733	+ 427	+ 184	+ 162	+ 250	...	+ 350	+ 510
16	+ 688	+1203	+1389	+ 590	+ 461	+ 543	+ 61	+ 178	+ 91	...	+ 397	+ 345
17	+ 551	+1105	+1128	+ 558	+ 913	+ 485	...	+ 240	+ 79	...	+ 423	+ 280
18	+ 316	+ 761	+ 192	+ 402	+ 687	+ 600	...	+ 270	+ 221	...	+ 383	+ 646
19	+ 477	+1108	+ 318	+ 345	+ 760	+ 444	...	+ 310	+ 229	+ 110	+ 622	+ 785
20	+ 921	+1205	+ 425	+ 663	+ 596	+ 236	...	+ 177	+ 256	...	+ 805	+1153
21	+ 807	+1106	+ 504	+ 598	+ 505	+ 253	...	+ 423	+ 237	...	+ 814	+1117
22	+ 748	+1478	+ 460	+ 490	+ 676	+ 315	...	+ 400	+ 135	+ 148	+ 693	+ 70
23	+ 865	+1270	+ 327	+ 655	+ 479	+ 342	...	+ 308	+ 32	+ 48	+ 707	+ 60
24	+ 751	+1046	+ 260	+ 528	+ 420	+ 282	...	+ 168	+ 121	+ 203	+ 955	+ 327
25	+ 942	+1088	+ 363	+ 413	+ 381	+ 400	...	+ 185	+ 118	+ 475	+ 764	+ 450
26	+ 870	+1072	+1004	+ 300	+ 370	+ 239	...	+ 267	+ 168	+ 15	+ 783	+ 128
27	+1382	+ 998	+ 954	+ 677	+ 305	+ 135	...	+ 265	+ 306	+ 38	+ 357	+ 75
28	+1807	+ 760	+ 235	+ 762	+ 488	+ 225	+ 233	+ 304	+ 180	+ 30	+ 285	+ 80
29	+1194		+ 184	+ 393	+ 701	+ 225	+ 301	+ 266	+ 52	+ 265	+ 102	+ 391
30	+ 938		+ 203	+ 918	+ 448	+ 267	+ 262	+ 499	+ 158	+ 323	+ 472	+ 507
31	+ 948		+ 358		+ 347		+ 195	+ 602		+ 58		+ 395
Means	+ 678	+ 839	+ 654	+ 636	+ 633	+ 434	+ 221	+ 302	+ 257	+ 140	+ 410	+ 477

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.	1909. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
Midnight	+ 646	+ 801	+ 657	+ 636	+ 675	+ 421	+ 193	+ 293	+ 267	+ 128	+ 392	+ 439	+ 462
1h	+ 637	+ 715	+ 611	+ 651	+ 606	+ 394	+ 185	+ 272	+ 255	+ 107	+ 356	+ 403	+ 433
2	+ 622	+ 609	+ 540	+ 604	+ 533	+ 372	+ 178	+ 275	+ 231	+ 109	+ 328	+ 389	+ 399
3	+ 585	+ 661	+ 480	+ 561	+ 548	+ 347	+ 161	+ 246	+ 226	+ 101	+ 317	+ 367	+ 383
4	+ 550	+ 670	+ 443	+ 542	+ 598	+ 317	+ 156	+ 246	+ 197	+ 90	+ 309	+ 351	+ 372
5	+ 559	+ 670	+ 472	+ 538	+ 621	+ 320	+ 157	+ 247	+ 192	+ 82	+ 322	+ 355	+ 378
6	+ 580	+ 718	+ 548	+ 568	+ 693	+ 366	+ 181	+ 261	+ 201	+ 76	+ 351	+ 395	+ 411
7	+ 588	+ 808	+ 595	+ 630	+ 718	+ 404	+ 195	+ 286	+ 217	+ 84	+ 363	+ 414	+ 442
8	+ 595	+ 850	+ 649	+ 650	+ 740	+ 418	+ 218	+ 305	+ 230	+ 96	+ 374	+ 428	+ 463
9	+ 637	+ 874	+ 738	+ 659	+ 720	+ 431	+ 228	+ 340	+ 261	+ 117	+ 405	+ 445	+ 488
10	+ 701	+ 943	+ 815	+ 697	+ 729	+ 528	+ 289	+ 400	+ 312	+ 144	+ 459	+ 518	+ 545
11	+ 782	+ 960	+ 811	+ 649	+ 655	+ 528	+ 275	+ 388	+ 329	+ 160	+ 457	+ 536	+ 544
Noon	+ 720	+ 913	+ 756	+ 669	+ 564	+ 512	+ 261	+ 313	+ 262	+ 150	+ 407	+ 516	+ 504
13h	+ 709	+ 854	+ 628	+ 576	+ 478	+ 453	+ 210	+ 290	+ 243	+ 151	+ 390	+ 519	+ 458
14	+ 701	+ 834	+ 594	+ 554	+ 485	+ 401	+ 206	+ 247	+ 239	+ 143	+ 389	+ 509	+ 442
15	+ 700	+ 819	+ 606	+ 546	+ 504	+ 396	+ 191	+ 262	+ 227	+ 146	+ 433	+ 525	+ 446
16	+ 735	+ 831	+ 636	+ 554	+ 548	+ 421	+ 193	+ 285	+ 240	+ 175	+ 481	+ 564	+ 472
17	+ 771	+ 924	+ 678	+ 554	+ 621	+ 456	+ 243	+ 284	+ 247	+ 205	+ 469	+ 595	+ 504
18	+ 785	+ 961	+ 681	+ 636	+ 679	+ 514	+ 257	+ 307	+ 296	+ 203	+ 462	+ 581	+ 530
19	+ 784	+ 1002	+ 735	+ 750	+ 704	+ 528	+ 249	+ 334	+ 311	+ 204	+ 477	+ 562	+ 553
20	+ 754	+ 983	+ 795	+ 755	+ 733	+ 485	+ 281	+ 339	+ 304	+ 205	+ 482	+ 538	+ 555
21	+ 743	+ 955	+ 794	+ 810	+ 726	+ 487	+ 291	+ 348	+ 300	+ 170	+ 487	+ 508	+ 552
22	+ 720	+ 936	+ 752	+ 782	+ 660	+ 460	+ 275	+ 349	+ 292	+ 167	+ 476	+ 498	+ 531
23	+ 663	+ 848	+ 689	+ 698	+ 642	+ 445	+ 234	+ 327	+ 279	+ 146	+ 448	+ 490	+ 492
24	+ 659	+ 794	+ 649	+ 671	+ 660	+ 413	+ 196	+ 306	+ 251	+ 117	+ 402	+ 451	+ 464
Means 0h.–23h.	+ 678	+ 839	+ 654	+ 636	+ 633	+ 434	+ 221	+ 302	+ 257	+ 140	+ 410	+ 477	+ 473
Means 1h.–24h.	+ 678	+ 839	+ 654	+ 638	+ 632	+ 433	+ 221	+ 302	+ 256	+ 139	+ 410	+ 477	+ 473
Number of Days employed.	31	28	31	28	31	30	20	31	30	23	30	31	...

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

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

Hour, Greenwich Civil Time.	1909.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight	+ 496	+ 705	+ 543	+ 384	+ 529	+ 462	+ 188	+ 250	+ 257	+ 87	+ 408	+ 410	+ 393
1^h	+ 494	+ 509	+ 508	+ 478	+ 464	+ 431	+ 174	+ 232	+ 253	+ 68	+ 354	+ 358	+ 360
2	+ 440	+ 231	+ 427	+ 437	+ 340	+ 412	+ 179	+ 232	+ 229	+ 74	+ 334	+ 353	+ 307
3	+ 338	+ 421	+ 344	+ 425	+ 342	+ 365	+ 162	+ 183	+ 214	+ 70	+ 322	+ 314	+ 292
4	+ 276	+ 506	+ 322	+ 464	+ 452	+ 288	+ 153	+ 180	+ 176	+ 64	+ 306	+ 284	+ 289
5	+ 292	+ 523	+ 376	+ 453	+ 499	+ 291	+ 148	+ 164	+ 175	+ 49	+ 312	+ 296	+ 298
6	+ 340	+ 539	+ 446	+ 493	+ 610	+ 360	+ 175	+ 187	+ 181	+ 41	+ 320	+ 341	+ 336
7	+ 322	+ 649	+ 465	+ 589	+ 691	+ 394	+ 185	+ 231	+ 190	+ 44	+ 320	+ 361	+ 370
8	+ 248	+ 680	+ 507	+ 610	+ 700	+ 402	+ 203	+ 251	+ 205	+ 43	+ 300	+ 374	+ 377
9	+ 258	+ 726	+ 603	+ 580	+ 697	+ 355	+ 207	+ 289	+ 215	+ 58	+ 278	+ 384	+ 388
10	+ 374	+ 802	+ 671	+ 659	+ 769	+ 481	+ 265	+ 317	+ 217	+ 77	+ 278	+ 465	+ 448
11	+ 578	+ 819	+ 655	+ 653	+ 719	+ 501	+ 258	+ 280	+ 248	+ 96	+ 310	+ 480	+ 466
Noon	+ 592	+ 878	+ 636	+ 733	+ 684	+ 500	+ 249	+ 161	+ 178	+ 88	+ 230	+ 425	+ 446
13^h	+ 588	+ 837	+ 465	+ 540	+ 586	+ 445	+ 193	+ 229	+ 158	+ 89	+ 242	+ 429	+ 401
14	+ 566	+ 810	+ 388	+ 491	+ 606	+ 376	+ 186	+ 174	+ 152	+ 79	+ 268	+ 429	+ 377
15	+ 588	+ 713	+ 349	+ 486	+ 674	+ 352	+ 158	+ 221	+ 141	+ 87	+ 272	+ 437	+ 373
16	+ 666	+ 619	+ 375	+ 467	+ 769	+ 376	+ 157	+ 239	+ 128	+ 104	+ 252	+ 472	+ 385
17	+ 692	+ 782	+ 452	+ 481	+ 789	+ 398	+ 236	+ 201	+ 163	+ 118	+ 232	+ 528	+ 423
18	+ 616	+ 818	+ 416	+ 569	+ 838	+ 473	+ 244	+ 209	+ 232	+ 96	+ 246	+ 505	+ 438
19	+ 564	+ 889	+ 477	+ 697	+ 841	+ 509	+ 223	+ 259	+ 258	+ 93	+ 272	+ 483	+ 464
20	+ 508	+ 850	+ 573	+ 661	+ 897	+ 444	+ 290	+ 252	+ 249	+ 122	+ 312	+ 462	+ 468
21	+ 528	+ 862	+ 600	+ 728	+ 836	+ 444	+ 311	+ 262	+ 259	+ 73	+ 322	+ 434	+ 472
22	+ 440	+ 884	+ 549	+ 658	+ 610	+ 404	+ 295	+ 244	+ 235	+ 111	+ 346	+ 413	+ 432
23	+ 210	+ 730	+ 508	+ 529	+ 582	+ 391	+ 245	+ 237	+ 237	+ 112	+ 322	+ 393	+ 375
24	+ 308	+ 731	+ 541	+ 495	+ 658	+ 396	+ 194	+ 234	+ 198	+ 89	+ 244	+ 357	+ 370
Means 0^h.–23^h.	+ 459	+ 699	+ 486	+ 553	+ 647	+ 411	+ 212	+ 229	+ 206	+ 81	+ 298	+ 410	+ 391
Means 1^h.–24^h.	+ 451	+ 700	+ 486	+ 557	+ 652	+ 408	+ 212	+ 228	+ 204	+ 81	+ 291	+ 407	+ 390
Number of Days employed.	5	8	19	12	9	13	11	9	15	12	5	20	...

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.	1909. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
Midnight	+ 694	+ 837	+ 950	+ 839	+ 744	+ 388	+ 235	+ 315	+ 302	+ 163	+ 474	+ 402	+ 529
1h	+ 667	+ 806	+ 870	+ 818	+ 670	+ 353	+ 202	+ 295	+ 279	+ 150	+ 472	+ 397	+ 498
2	+ 657	+ 776	+ 829	+ 789	+ 617	+ 327	+ 178	+ 301	+ 251	+ 137	+ 445	+ 397	+ 475
3	+ 638	+ 774	+ 829	+ 737	+ 634	+ 317	+ 168	+ 283	+ 254	+ 140	+ 425	+ 420	+ 468
4	+ 615	+ 753	+ 749	+ 674	+ 660	+ 322	+ 167	+ 287	+ 233	+ 137	+ 415	+ 455	+ 456
5	+ 610	+ 736	+ 733	+ 672	+ 672	+ 343	+ 182	+ 294	+ 221	+ 133	+ 418	+ 445	+ 455
6	+ 639	+ 793	+ 837	+ 673	+ 729	+ 372	+ 197	+ 302	+ 228	+ 136	+ 448	+ 475	+ 486
7	+ 661	+ 881	+ 933	+ 701	+ 731	+ 418	+ 218	+ 315	+ 252	+ 134	+ 457	+ 513	+ 518
8	+ 695	+ 929	+1001	+ 728	+ 754	+ 432	+ 252	+ 327	+ 259	+ 147	+ 455	+ 548	+ 544
9	+ 764	+ 939	+1077	+ 759	+ 718	+ 493	+ 265	+ 355	+ 307	+ 157	+ 493	+ 592	+ 577
10	+ 863	+1002	+1185	+ 748	+ 688	+ 575	+ 353	+ 430	+ 414	+ 186	+ 541	+ 635	+ 635
11	+ 929	+1023	+1206	+ 659	+ 598	+ 565	+ 323	+ 419	+ 415	+ 219	+ 519	+ 662	+ 628
Noon	+ 818	+ 927	+1101	+ 613	+ 495	+ 536	+ 308	+ 367	+ 346	+ 206	+ 462	+ 712	+ 574
13h	+ 808	+ 862	+1068	+ 614	+ 415	+ 487	+ 263	+ 317	+ 327	+ 206	+ 438	+ 695	+ 542
14	+ 807	+ 833	+1109	+ 627	+ 415	+ 447	+ 268	+ 271	+ 335	+ 187	+ 426	+ 700	+ 535
15	+ 803	+ 856	+1214	+ 616	+ 408	+ 468	+ 257	+ 259	+ 325	+ 193	+ 489	+ 742	+ 552
16	+ 844	+ 912	+1237	+ 650	+ 432	+ 507	+ 257	+ 269	+ 377	+ 234	+ 546	+ 738	+ 584
17	+ 900	+ 958	+1223	+ 666	+ 517	+ 550	+ 263	+ 293	+ 364	+ 276	+ 548	+ 725	+ 607
18	+ 955	+1002	+1322	+ 711	+ 575	+ 587	+ 288	+ 321	+ 365	+ 294	+ 515	+ 693	+ 636
19	+ 992	+1022	+1381	+ 772	+ 620	+ 568	+ 295	+ 334	+ 341	+ 307	+ 515	+ 660	+ 651
20	+1001	+1006	+1390	+ 808	+ 659	+ 523	+ 288	+ 352	+ 338	+ 263	+ 517	+ 637	+ 648
21	+ 997	+ 956	+1335	+ 881	+ 685	+ 501	+ 280	+ 364	+ 323	+ 254	+ 542	+ 655	+ 648
22	+ 983	+ 930	+1283	+ 917	+ 683	+ 478	+ 260	+ 373	+ 336	+ 186	+ 531	+ 688	+ 637
23	+ 955	+ 883	+1171	+ 873	+ 665	+ 466	+ 208	+ 347	+ 312	+ 166	+ 500	+ 715	+ 605
24	+ 921	+ 809	+1020	+ 835	+ 650	+ 407	+ 198	+ 323	+ 292	+ 131	+ 468	+ 708	+ 563
Means 0h.–23h.	+ 804	+ 891	+1085	+ 731	+ 616	+ 459	+ 249	+ 325	+ 313	+ 192	+ 483	+ 596	+ 562
Means 1h.–24h.	+ 813	+ 890	+1088	+ 731	+ 612	+ 460	+ 247	+ 325	+ 312	+ 191	+ 483	+ 609	+ 563
Number of Days employed.	16	18	8	12	21	12	6	18	12	7	13	6	...

AMOUNT of RAIN COLLECTED in each MONTH of the YEAR 1909.

MONTH, 1909.	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.		
							In Magnetic Pavilion Enclosure.	In Observatory Grounds.	In Magnetic Pavilion Enclosure.
		No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.
		in.	in.	in.	in.	in.	in.	in.	in.
January	12	0·338	0·313	0·571	0·582	0·714	0·766	0·728	0·766
February	9	...*	0·287	0·445	0·498	0·548	0·627	0·559	0·581
March	22	...*	1·928	2·359	2·537	2·950	3·080	2·904	2·946
April	16	1·003	1·008	1·356	1·400	1·605	1·639	1·623	1·608
May	10	0·829	0·998	1·130	1·201	1·248	1·239	1·246	1·216
June	16	...†	...†	3·023	3·504	3·581	3·671	3·577	3·621
July	18	2·007	2·060	2·615	2·956	3·142	3·156	3·112	3·137
August	11	1·238	1·284	1·557	1·668	1·749	1·802	1·736	1·752
September	17	1·548	1·721	2·082	2·335	2·421	2·477	2·379	2·398
October	19	2·026	2·005	2·714	3·576	3·935	4·059	3·907	3·931
November	14	0·383	0·437	0·672	0·666	0·772	0·790	0·762	0·757
December	22	1·382	1·431	1·809	1·999	2·361	2·400	2·295	2·359
Sums	186	...	...	20·333	22·922	25·026	25·706	24·828	25·072
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. 1. 0
Height of receiving Surface 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. 149. 6	ft. in. 155. 3	ft. in. 150. 1

* Register interfered with by snow.
† Register interfered with by scaffolding.

ROYAL OBSERVATORY, GREENWICH.

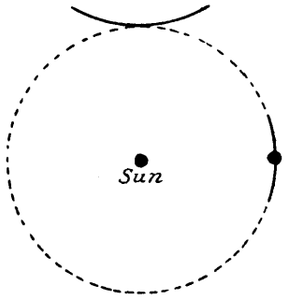
OBSERVATIONS

OF

PARHELIA AND PARASELENE.

1909.

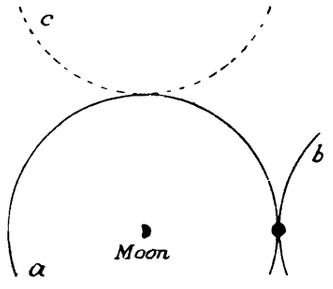
OBSERVATIONS OF PARHELIA AND PARASELENE MADE AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1909.



THE PARHELION OF 1909 FEBRUARY 26.

At $15^h\ 5^m$ a brightly coloured inverted arch appeared directly above the sun, and at $15^h\ 6^m$ a small arc of the ordinary 22° halo was seen with a brilliant parhelion to the right of the sun. Two minutes later scud obscured the phenomena.

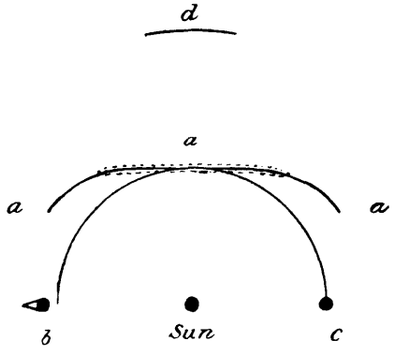
ARTHUR E. LOOMES.



THE PARASELENE OF 1909 MARCH 2.

h	m	
19	0.	Faint lunar halo (*a*) visible; incomplete in lower segment.
19	5.	Halo (*a*) very bright, but still incomplete. Secondary arc (*b*) discernible.
19	10.	Halo brilliant. Distinct paraselene visible at point of contact of primary and secondary arcs. Another extremely faint secondary arc (*c*) just observable in contact with primary arc vertically above moon.
19	15.	Halo less brilliant. Clouds (cirro-stratus) condensing. Paraselene invisible.
19	20.	Clouds considerably denser. No halo visible.

W. W. BURKETT



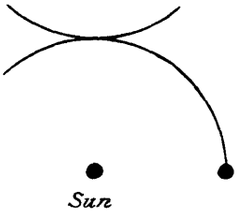
THE PARHELIA OF 1909 MARCH 8.

h	m	
12	0.	Partial solar halo (22° radius) observed, the upper portion of which is very brilliant and coloured prismatically.
14	0.	A contact arch (*a a a*), has now formed, and also parhelia (*b c*) to left and right of the sun respectively. The mock sun (*b*) is slightly outside the halo (approximately ½°), and at times shows a tapering spur of about 1° in length in a direction away from the sun. Both parhelia show faint colouring, and red can be seen distinctly on the sides nearest to the sun.
14	30.	A small arc (*d*) of the 46° halo can now be traced faintly, showing a suspicion of colour at times.
15	0.	The phenomena have now become very faint.
15	30.	The phenomena have disappeared altogether.

DAVID J. R. EDNEY.

THE PARHELION OF 1909 APRIL 24.

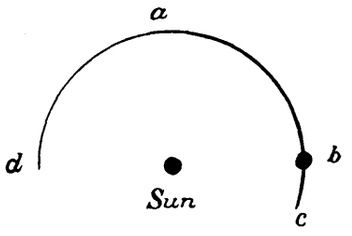
At $16^h\ 45^m$ the solar halo (visible at intervals since 10^h) had assumed the appearance shown in the diagram. The contact-arch and parhelion to right of sun were brightly coloured, the ordinary halo being just visible. The phenomenon was seen for a few minutes only, and at $16^h\ 50^m$ was quite obscured by nimbus rising from the south-west.



DAVID J. R. EDNEY.

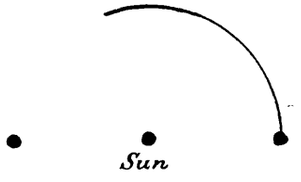
THE PARHELIA OF 1909 APRIL 28.

A partial solar halo was observed at intervals from $16^h\ 5^m$. At $17^h\ 37^m$ the arc (a c) was seen with a mock sun at (b). By $17^h\ 56^m$ the arc (d a) had also become visible, but fainter than the rest. The parhelion was obscured by cumulus shortly after 18^h, but portions of the halo were seen occasionally until $18^h\ 40^m$.



ARTHUR E. LOOMES.

Appearance of halo and parhelia at 18^h.



DAVID J. R. EDNEY.

THE PARHELION OF 1909 APRIL 30.

At $15^h\ 45^m$ a brightly coloured parhelion was observed to the right of the sun, but was immediately afterwards obscured by nimbus. No halo was seen.

ARTHUR E. LOOMES.

ROYAL OBSERVATORY, GREENWICH.

OBSERVATIONS

OF

LUMINOUS METEORS.

1909.

Month and Day, 1909.	Greenwich Civil Time.	Observer.	Brightness of Meteor in Star Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Path of Meteor in the Sky.
	h m s				s		°	° ° ° °
April 20	22. 10. 58	T	2	Yellowish	0·2	None	6	138 + 56 to 147 + 55
„	22. 26. 1	T	2	White	0·2	None	7	225 + 45 to 222 + 52
„	23. 42. 4	L	2	Bluish-white	0·5	Slight	14	246 + 40 to 234 + 30
April 21	0. 17. 55	T & L	1	White	0·5	Slight	13	260 + 40 to 242 + 42
„	0. 21. 27	T & L	>1	Yellow	0·3	None	11	266 + 39 to 260 + 30
„	0. 30. 15	L	2	Bluish-white	0·5	None	22	254 + 10 to 240 − 7
„	0. 32. 28	T	1	Yellow	0·5	Slight	7	264 + 30 to 258 + 26
„	0. 45. 10	T	2	White	0·3	None	6	272 + 31 to 266 + 28
„	0. 50. 20	T	1	White	0·5	Slight	18	233 + 55 to 201 + 58
„	0. 51. 30	T	1	Yellowish	1·0	Slight	22	278 + 42 to 249 + 40
„	1. 3. 12	T	2	Yellowish	0·5	None	6	279 + 46 to 272 + 44
„	1. 6. 0	L	3	White	0·3	None	9	222 + 53 to 207 + 53
„	1. 8. 56	T	2	Yellow	0·3	None	7	249 + 53 to 239 + 55
„	1. 17. 21	T & L	1	Yellow	0·4	Slight	21	246 − 6 to 230 − 20
„	1. 29. 2	L	3	White	0·3	None	9	275 + 34 to 275 + 25
„	1. 41. 46	L	3	Bluish-white	0·3	None	10	258 + 38 to 248 + 34
„	1. 57. 13	T	2	Yellow	0·2	None	9	158 + 60 to 144 + 55
„	2. 5. 0	L	2	Blue	0·4	Slight	8	294 + 8 to 294 0
„	2. 13. 41	T	1	White	0·5	Bright	9	234 + 32 to 225 + 30
„	2. 24. 9	L	1	Yellow	0·8	None	13	222 + 35 to 207 + 30
„	22. 21. 16	K	3	Yellow	0·7	Slight	8	142 + 9 to 136 + 3
„	22. 39. 39	L	2	Yellow	0·3	Slight	9	235 + 43 to 225 + 40
„	22. 49. 8	K	1	White	0·5	None	22	213 + 9 to 192 + 2
„	22. 59. 45	E	1	White	0·3	Slight	16	157 + 12 to 142 + 6
„	23. 6. 55	L	>1	Yellow	0·4	Slight	14	275 + 39 to 276 + 53
„	23. 33. 58	K	3	Yellow	0·5	None	16	207 + 17 to 190 + 15
„	23. 42. 39	K	2	White	0·5	None	13	200 − 10 to 187 − 15
„	23. 47. 55	K	2	White	0·5	Slight	10	168 + 7 to 162 − 1
April 22	0. 10. 43	L	1	Yellow	0·5	Slight	13	265 + 30 to 255 + 20
„	0. 15. 58	L	3	Blue	0·2	None	13	261 + 36 to 248 + 30
August 11	22. 10. 16	L	2	White	0·5	Short : bright	20	5 + 22 to 345. + 15
„	22. 15. 15	E	1	Yellow	0·5	15°	16	3 + 15 to 359 0
„	22. 17. 51	E & T	2	Yellowish-white	0·8	Slight	19	353 + 40 to 8 + 55
„	22. 23. 47	T	1	Yellowish	0·5	Slight	7	248 + 69 to 261 + 74
„	22. 24. 6	E	>1	Yellowish	0·3	Very slight	7	33 + 23 to 29 + 18
„	22. 30. 44	L	1	Yellowish	0·4	Slight	22	11 + 15 to 357 0
„	22. 30. 53	E & T	1	White	0·5	Long : bright	14	344 + 42 to 332 + 34
„	22. 34. 36	E & T	>1	White	0·5	Long : bright	30	5 + 36 to 345 + 13
„	22. 38. 1	T	2	Yellowish	0·3	None	8	266 + 73 to 270 + 80
„	22. 39. 16	E	1	White	0·5	Long	26	30 + 66 to 318 + 70
„	22. 41. 22	L	>1	Yellow	0·8	Long : bright	25	339 + 30 to 324 + 10
„	22. 45. 31	T	1	Yellowish	0·8	Bright	26	8 + 65 to 291 + 76
„	22. 49. 49	E	2	White	0·3	Slight	7	30 + 50 to 23 + 45
„	22. 50. 40	L	2	White	0·5	Long : bright	24	341 + 27 to 324 + 10
„	22. 53. 12	T	1	White	0·5	Bright	18	353 + 45 to 345 + 28
„	22. 57. 6	T & L	2	White	0·4	Slight	18	30 + 63 to 353 + 77
„	23. 9. 55	L	1	White	0·3	Long : bright	15	327 + 8 to 317 − 2
„	23. 15. 16	T	2	White	0·5	Faint	11	335 + 57 to 350 + 65
„	23. 16. 29	L	1	White	0·5	Short : bright	20	27 + 63 to 341 + 66
„	23. 21. 14	T	1	White	0·5	Long : bright	22	305 + 56 to 282 + 40
„	23. 26. 55	L	3	Bluish-white	0·3	None	14	8 + 14 to 0 + 3
„	23. 29. 34	T	1	Yellowish-white	1·0	Long : bright	12	315 + 41 to 300 + 46
„	23. 35. 10	T	3	White	0·3	None	11	315 + 54 to 308 + 45
„	23. 38. 5	L	>1	Yellow	0·6	Long : bright	24	27 + 63 to 330 + 64
„	23. 45. 27	T & L	2	White	0·3	None	6	36 + 67 to 29 + 72

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

Month and Day, 1909.	Greenwich Civil Time.	Observer.	Brightness of Meteor in Star Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Path of Meteor in the Sky.
	h m s				s		°	° ° to ° °
August 11	23. 47. 44	L	3	White	0·4	None	7	30 + 64 to 15 + 66
,,	23. 50. 15	L	1	Yellow	0·4	Short : bright	19	353 + 14 to 341 0
,,	23. 50. 43	T & L	1	Yellowish-white	0·5	Bright	42	345 + 17 to 27 + 14
August 12	0. 5. 7	L	>1	Yellow	0·5	Short : bright	7	24 + 43 to 21 + 36
,,	0. 8. 10	T	1	White	0·5	Long : bright	30	23 + 24 to 353 + 17
,,	0. 8. 10	L	1	Yellow	0·4	Slight	8	45 + 60 to 60 + 63
,,	0. 14. 38	T	2	White	0·3	None	22	24 + 34 to 359 + 33
,,	0. 24. 32	T	2	Yellowish	0·5	Bright	11	320 + 19 to 309 + 20
,,	0. 29. 10	L	1	Yellowish	0·6	Slight	22	5 + 10 to 357 − 10
,,	0. 44. 54	L	>1	Yellowish	0·4	Short : bright	19	33 + 23 to 51 + 31
,,	0. 46. 49	L	2	White	0·2	Slight	8	45 + 57 to 57 + 53
,,	0. 50. 14	T	1	White	0·5	Long train breaking into two streaks.	27	24 + 27 to 356 + 21
,,	0. 52. 45	L	2	Bluish-white	0·3	Slight	7	44 + 56 to 53 + 51
,,	1. 2. 31	T & L	2	White	0·3	Faint	9	45 + 55 to 51 + 47
,,	1. 13. 24	T & L	2	White	0·3	Faint	16	0 + 62 to 330 + 58
,,	1. 15. 13	T	2	White	0·2	Faint	13	320 + 46 to 303 + 43
,,	1. 25. 26	L	2	Bluish-white	0·3	Slight	16	42 + 62 to 21 + 75
,,	1. 33. 12	L	1	Yellow	0·5	Slight	24	30 + 23 to 23 0
,,	1. 35. 54	T	>1	White	0·5	Bright	5	27 + 64 to 38 + 64
,,	1. 38. 35	L	>1	Yellow	0·6	Short : bright	21	344 + 15 to 333 − 2
,,	1. 48. 54	T	>1	White	0·6	Long : bright	13	12 + 38 to 5 + 27
,,	1. 50. 26	T	1	White	0·5	Long : bright	13	12 + 38 to 5 + 27
,,	1. 54. 38	L	2	Yellowish	0·4	Slight	14	41 + 46 to 35 + 33
,,	2. 1. 58	L	2	Yellow	0·3	None	10	42 + 57 to 24 + 59
,,	2. 3. 26	E & T	1	Yellow	0·5	Long : bright	10	2 + 28 to 353 + 22
,,	2. 6. 16	T	1	White	0·5	Bright	10	357 + 35 to 350 + 27
,,	2. 14. 26	E & L	2	Yellow	0·4	Bright : 3 secs.	7	30 + 50 to 23 + 45
,,	2. 18. 54	L	2	Yellowish	0·3	Slight	8	53 + 31 to 56 + 23
,,	2. 20. 51	T	1	White	0·5	Long : bright	15	5 + 54 to 348 + 44
,,	2. 24. 39	E	1	Yellowish	0·5	Bright	9	27 + 26 to 23 + 18
,,	2. 26. 18	T	2	White	0·5	None	10	23 + 42 to 30 + 34
,,	2. 31. 59	T	2	White	0·3	None	7	23 + 70 to 30 + 64
,,	2. 33. 36	L	1	Yellowish	0·4	Short : bright	13	36 + 23 to 30 + 12
,,	2. 35. 50	T	2	Yellow	0·5	Slight	13	50 + 33 to 60 + 24
,,	2. 39. 16	E & T	1	Bluish-white	0·4	Slight	3	2 + 58 to 6 + 57
,,	2. 43. 56	T & L	1	Yellow	0·4	Slight	30	3 + 25 to 345 + 2
,,	2. 50. 55	T & L	>1	Yellowish-white	0·4	Bright	13	50 + 56 to 63 + 46
,,	3. 1. 16	L	2	Bluish-white	0·3	Slight	11	44 + 52 to 38 + 42
,,	3. 5. 6	T	1	White	0·5	Bright	31	318 + 30 to 296 + 8
,,	3. 12. 58	T & L	2	White	0·5	Slight	24	56 + 42 to 66 + 20
,,	21. 42. ±	T & L	0	White	2·0	Very bright: 65 secs.	36	3 + 60 to 330 + 32
,,	21. 58. 25	T	2	White	0·5	Short : bright	10	273 + 83 to 9 + 85
,,	22. 10. 13	K, T & L	0	White	1·5	Bright : 20 secs.	28	357 + 43 to 318 + 45
,,	22. 13. 18	K & L	>1	White	1·0	Short : bright	24	336 + 31 to 328 + 8
,,	22. 20. 0	K & T	2	White	0·5	Slight	12	345 + 20 to 354 + 13
,,	22. 21. 13	L	2	White	0·4	Slight	11	346 + 27 to 342 + 17
,,	22. 23. 48	T	2	Yellow	0·3	Slight	6	296 + 7 to 291 + 4
,,	22. 31. 56	L	2	White	0·5	None	12	23 + 40 to 17 + 29
,,	22. 38. 0	K, T & L	1	Yellow	0·5	Bright : 4 secs.	20	352 + 50 to 338 + 34
,,	22. 41. 42	L	1	Yellow	0·5	Bright streak	22	218 + 52 to 218 + 30
,,	22. 46. 46	L	1	Bluish	1·5	Long bright streak	40	218 + 70 to 252 + 35
,,	22. 52. 22	T	>1	Yellow	0·5	Short : bright	5	11 + 43 to 6 + 40
,,	22. 58. 21	T	2	Yellow	0·3	Slight	6	6 + 54 to 357 + 57
,,	23. 1. 25	T	:	White	0·5	Long : bright	14	30 + 73 to 15 + 86
,,	23. 9. 25	T & L	1	White	0·4	Slight	10	56 + 48 to 63 + 39
,,	23. 22. 53	T & L	2	White	0·5	Slight	12	48 + 56 to 68 + 55
,,	23. 23. 48	K	2	White	0·5	Slight	16	354 + 12 to 9 + 7
,,	23. 30. 28	T & L	2	White	0·5	Slight	21	3 + 45 to 346 + 30
,,	23. 34. 17	K	2	White	0·5	Slight	9	312 + 48 to 303 + 41
,,	23. 36. 20	T	1	White	0·5	Bright	11	53 + 72 to 45 + 83
,,	23. 42. 28	T	1	White	0·5	Short : bright	11	355 + 57 to 336 + 58

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

Month and Day, 1909.	Greenwich Civil Time.	Observer.	Brightness of Meteor in Star Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Path of Meteor in the Sky.
	h m s				s		°	° ° ° °
August 12	23. 45. 55	L	1	White	0·8	Bright	20	349 + 28 to 338 + 11
,,	23. 48. 55	T & L	2	White	0·5	Slight	12	60 + 60 to 84 + 64
,,	23. 51. 59	K	2	Yellow	0·5	None	14	8 + 14 to 3 + 1
,,	23. 53. 54	T	1	White	0·3	Bright	12	27 + 63 to 5 + 57
August 13	0. 5. 35	K & L	1	White	1·0	Bright	25	309 + 45 to 345 + 58
,,	0. 12. 43	L	1	Yellow	0·3	Short : bright	10	351 + 70 to 323 + 73
,,	0. 16. 40	K	3	Yellow	0·5	None	9	0 + 17 to 358 + 8
,,	0. 17. 49	T	>1	White	0·6	Slight	16	18 + 27 to 2 + 23
,,	0. 26. 8	L	3	Bluish	0·3	None	5	45 + 57 to 53 + 60
,,	0. 29. 36	L	2	White	0·5	Slight	7	21 + 57 to 9 + 56
,,	0. 30. 25	T	1	Yellow	0·5	Long : bright : 1 sec.	24	90 + 87 to 158 + 64
,,	0. 32. 57	L	1	White	0·5	Slight	19	11 + 23 to 2 + 6
,,	0. 38. 22	K, T & L	>1	Yellow	0·5	Bright : 3 secs.	16	27 + 19 to 27 + 3
,,	0. 43. 12	T	1	White	0·5	Slight	3	93 + 58 to 90 + 57
,,	0. 49. 8	T	1	Yellow	0·6	Long : bright	21	90 + 40 to 66 + 34
,,	0. 51. 57	L	2	Bluish	0·3	None	5	57 + 52 to 62 + 49
,,	0. 53. 9	T	2	Bluish	0·3	None	11	351 + 4 to 348 − 7
,,	0. 54. 23	K	3	Yellow	0·5	Slight	21	318 + 12 to 302 − 1
,,	1. 6. 54	T & L	>1	Yellow	0·5	Bright	23	15 + 35 to 3 + 15
,,	1. 17. 31	K & T	2	Yellow	0·3	None	15	327 + 8 to 323 − 7
,,	1. 22. 52	L	1	White	0·5	Short : bright	15	59 + 35 to 63 + 20
,,	1. 28. 15	L	1	White	0·5	Slight	11	75 + 50 to 90 + 45
,,	1. 31. 8	K, T & L	1	White	0·5	Short : bright	8	38 + 50 to 38 + 42
,,	1. 54. 15	K	2	White	0·5	Slight	16	84 + 30 to 89 + 45
,,	1. 55. 43	T	2	White	0·5	Slight	14	54 + 24 to 54 + 10
October 21	23. 7. ±	AC	2	...	...	Swift streak	15	91 + 36 to 80 + 24
,,	23. 39. ±	AC	2	...	...	None	11	186 + 74 to 196 + 64
November 13	23. 47. 36	K & L	1	Yellow	0·6	None	17	80 + 28 to 96 + 38
November 14	0. 3. 15	L	2	Yellow	0·3	None	8	93 + 13 to 99 + 8
,,	0. 39. 37	K & L	>1	Yellow	0·5	None	20	108 + 22 to 128 + 15
November 15	23. 14. 43	L	2	Bluish-white	0·3	None	14	98 + 16 to 111 + 12
,,	23. 30. 10	T	2	Yellow	0·3	None	9	183 + 77 to 224 + 76

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