RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL

OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1902:

UNDER THE DIRECTION OF

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ASTRONOMER ROYAL.

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Page (lxxxii), Table (III.). Footnote, last line—
for September 7 to October 20, *read* August 7 to September 20.

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1902.

Page *xxxi*, line 22—
for 67°.3′.5″, *read* 67°.3′.25″.

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ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS.

1902.

GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1902.

INTRODUCTION.

§ 1. *Personal Establishment and Arrangements.*

During the year 1902 the personal establishment in the Magnetical and Meteorological Department of the Royal Observatory consisted of William Carpenter Nash, Superintendent, aided by one Established Computer, David J. R. Edney, and four Computers. The Computers employed during the year were : — Albert Edward Showell, Wilfred C. Parkinson, William James Perry, William Wood Burkett, and Henry George Scott Barrett.

Mr. Nash 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, is fixed at the junction of the eastern and southern arms, and there is in addition a mean solar chronometer, M°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. In January 1886 a line of 9-inch pipes was laid underground from the Basement southward to a distance of about 155 feet, at which point there is an inlet from the atmosphere, for the purpose of ventilating the Basement by air which has acquired the temperature of the soil at a depth of several feet below the surface, and of thus obtaining greater uniformity of temperature. The depth of the line of pipes below the surface varies from 5 feet at the inlet in the south ground to 11 feet 6 inches at the entrance to the Basement.

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

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

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

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

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

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

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

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

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

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

§ 3. *Subjects of Observation in the year* 1902.

The observations comprise determinations of absolute magnetic declination, horizontal force, and dip; continuous photographic record of the variations of declination, horizontal force, and vertical force, and of the earth currents indicated in two distinct lines of wire; eye observations of the ordinary meteorological instruments, including the barometer, dry and wet-bulb thermometers, radiation and earth thermometers, and of thermometers placed on the roof of the Magnet House; continuous photographic record of the variations of the barometer, dry and wet-bulb thermometers, and electrometer (for atmospheric electricity); continuous automatic record of the direction, pressure, and velocity of the wind, and of the amount of rain; registration of the duration of sunshine, and amount of ozone; observations of some of the principal meteor showers; general record of ordinary atmospheric changes of weather, including numerical estimation of the amount of cloud, and occasional phenomena.

From the beginning of the year 1885, Greenwich civil time, reckoning from midnight to midnight, and counting from 0 to 24 hours, has been employed throughout the magnetical and meteorological sections. In previous years the time used throughout the magnetic section was Greenwich astronomical time, reckoning from noon to noon; and generally, in the meteorological section, Greenwich civil time, reckoning from midnight to midnight.

§ 4. *Magnetic Instruments.*

DECLINATION MAGNET FOR ABSOLUTE DETERMINATIONS. — For determination of magnetic declination in the Magnetic Pavilion, the hollow cylindrical magnet, Elliot No. 75, has been mounted in conjunction with the theodolite formerly used with the upper declination magnet in the Observatory, the aperture of the viewing telescope being reduced to that of the magnet collimator (0·3 inch) and a low-power eye-piece being provided. Since 1899 January 1 regular observations of declination have been made in the Magnetic Pavilion (alternating 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 $-10'{\cdot}8$. The upper declination magnet, formerly employed until the end of the year 1898 for the determination of absolute declination, was finally dismounted at the end of the year 1900.

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

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

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

The adopted reading for the line of collimation of the theodolite telescope throughout the year was $100^{\text{r}}{\cdot}280$.

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

The error of collimation of the magnet collimator is found by observing the position of the magnet, first with the collimator in the usual position with its scale direct, then with the collimator with its scale reversed, repeating the observations several times. This value was found from thirteen determinations during the year to be $3'.\ 42''{\cdot}5$.

The effect of torsion of the silk suspending thread is eliminated by turning the torsion-circle until the brass torsion weight inserted in place of the magnet, rests in the plane of the magnetic meridian. The weight is inserted usually about once a week, and whenever the adjustment is found not to have been sufficiently close, the observed positions of the magnet are corrected for displacement of the magnet from the meridian by the torsion of the thread. Such correction is determined experimentally, with the magnet in position, by changing the reading of the torsion-circle by a definite amount, usually 90°, thus giving the suspension thread that amount of azimuthal twist, and observing, with the theodolite, the change in the position of the magnet thereby produced, from which is derived the ratio of the couple due to torsion of the thread to the couple due to the earth's horizontal magnetic force. This ratio was found from the mean of three determinations to be $\frac{1}{1065}$. The thread broke on August 5, and the ratio for the new one was found from the mean of five determinations to be $\frac{1}{917}$.

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

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

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

The magnet is suspended by a skein of silk passing over two brass suspension pulleys

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

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

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

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

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

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

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

The light used for obtaining the photographic record is that given by a flame of coal gas, charged occasionally with the vapour of coal naphtha. A vertical slit, about $0^{in.}3$ long and $0^{in.}01$ wide, placed close to the light, is firmly supported on the pier which carries the magnet. It stands slightly out of the straight line joining the mirror of the magnet and the registering cylinder, and its distance from the mirror is about 25 inches. The distance of the axis of the registering cylinder from the mirror is 134·4 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 noon, but on Sundays, and occasionally on other days, this rule is not strictly followed. To obviate any uncertainty that might arise on such occasions from the interference of the two ends of a trace slightly longer than 24 hours, it has been arranged that one revolution of the cylinder should be made in 26 hours. The actual length of 24 hours on the sheet is about 13·3 inches.

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

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

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

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

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

Below the magnet carrier there is attached a small plane mirror, to which is directed a small telescope for the purpose of observing by reflexion the graduations of a horizontal opal glass scale attached to the southern wall of the eastern arm of the basement. The magnet, with its plane mirror, hangs within a double rectangular box, covered externally and internally with gilt paper. The numbers of the fixed scale increase from east to west, so that when the magnet is inserted in its usual position, with its marked end towards the west, increasing readings of the scale, as seen in the telescope, denote increasing horizontal force. The normal to the scale that meets the centre of the plane mirror is situated at the division 51 of the scale nearly, the distance of the scale from the centre of the plane mirror being 90·84 inches. The angle between the normal to the scale, which coincides nearly with the normal to the axis of the magnet, and the axis of the fixed telescope, is about 38°, the plane of the mirror being therefore inclined about 19° to the axis of the magnet.

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

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

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

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

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

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

On 1902 January 1 the following observations were made for determination of the angle of torsion :—

1902. Day.	The Marked End of the Magnet.							
	West.				East.			
	Torsion-Circle Reading.	Scale-Reading.	Difference of Scale-Readings for change of 1° of Torsion-Circle Reading.	Mean of the Times of Vibration.	Torsion-Circle Reading.	Scale-Reading.	Difference of Scale-Readings for change of 1° of Torsion-Circle Reading.	Mean of the Times of Vibration.
	° ′	div.	div.	s	°	div.	div.	s
Jan. 1	146 30	52·46		21·10	231	56·24		20·70
			7·72				7·63	
	147 30	60·18		20·94	232	63·87		20·88
			7·81				8·02	
	148 30	67·99		20·74	233	71·89		21·08

From these observations it appeared that the times of vibration and scale-readings were sensibly the same when the torsion-circle read 147°.54′, marked end west, and 231°.56′, marked end east, the difference being 84°.2′. Half this difference, or 42°.1′, is therefore the angle of torsion when the magnet is transverse to the meridian.

The value adopted in the reduction of the observations throughout the year was 42°.3′ being a mean of the determinations made on 1902 January 1 and 1902 December 31.

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

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

The length of $30^{div}\cdot85$ of the fixed scale is exactly 12 inches, and the distance of the centre of the face of the plane mirror from the scale, 90·84 inches ; consequently, the angle at the mirror subtended by one division of the scale is 14′.43″·2, or for change of one division of scale-reading the magnet is turned through an angle of 7′.21″·6.

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

reading = cotan angle of torsion × value of one division in terms of radius. The numbers above given being in very good agreement with the corresponding figures for 1901, the change of horizontal force corresponding to change of one division of scale-reading, then found to be 0·0023737, was again adopted; and this value has been used for conversion of the observed scale-readings into parts of the whole horizontal force.

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

A thermometer, the bulb of which reaches considerably below the attached scale, is so planted in a nearly upright position on the outer magnet box, that the bulb projects into the interior of the inner box containing the magnet. Readings of this thermometer are usually taken at 9^h, 10^h, 11^h, 12^h, 13^h, 14^h, 15^h, 16^h, and 21^h Greenwich civil time. An index correction of $-0°·3$ 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°.3′, the movement of the spot of light on the cylinder for a change of 0·01 of horizontal force is found to be 2·468 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 $52\frac{3}{4}°$ 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 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 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 68 observations made during the course of the year this was found to be $18^{s}\cdot763$.

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 1902 December 30 gave for the time of vibration of the magnet in the horizontal plane $17^{s}\cdot109$. This value has been used throughout for the year 1902.

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″·6, 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″·9.

The variation of vertical force, in terms of the whole vertical force, producing angular motion of the magnet corresponding to a change of one division of scale-reading = cotan dip $\times \left(\frac{T'}{T}\right)^2 \times$ value of one division in terms of radius, in which T' is the time of vibration of the magnet in the horizontal plane, and T that in the vertical plane. Assuming T' = 17ˢ·109, T = 18ˢ·763, and dip = 67°.3′.25″, the change of vertical force corresponding to change of one division of scale-reading was found to be 0·0004623, and this value has been used throughout the year 1902 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°·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 *xxi*), the movement of the spot of light on the cylinder for a change of 0·01 of vertical force is thus found to be 5·694 inches, and with this unit the scale for measure of the ordinates was constructed for use throughout the year. Base line values were then determined and written on the sheets, and new base lines laid down, from which the hourly ordinates (see page *xxix*) were measured, exactly in the same way as was described for declination.

In regard to the temperature-correction of the vertical force magnet, it is only necessary here to say that, according to a series of experiments made 1882 October 17 to 23, in a similar manner to those for the horizontal force magnet (page *xviii*), and in temperatures ranging from 59°·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 way that the needle point should form a dark image in the bright field.

The instrument is adapted to the observation of needles of 9 inches, 6 inches, and 3 inches in length. The main portion of the instrument, that in which the needle under observation is placed, consists of a square box made of gun metal (carefully selected to ensure freedom from iron), with back and front of glass. Six microscopes, so planted as to command the points of the three different lengths of needles, turn on a horizontal axis so as to follow the points of the needles in the different positions which in observation they take up. The needle pivots rest on agate bearings. The object-glasses and field-glasses of the microscopes are within the front glass plate, their eye-glasses being outside, and turning with them on the same axis. Upon the plane side of each field-glass (the side next the object-glass and on which the image of the needle point is formed) a scale is etched, by means of which the position of the needle points is noted. And on the inner side of the front glass plate is etched the graduated circle, $9\frac{3}{4}$ inches in diameter, divided to $10'$, and read by two verniers to $10''$. The verniers (thin plates of metal, with notches instead of lines, for use with transmitted light) are carried by the horizontal axis, inside the front glass plate, their reading lenses, attached to the same axis, being outside. A suitable clamp with slow motion is provided. The microscopes and verniers can be illuminated by one gas lamp, the light from which, falling on eight corresponding prisms, is thereby directed to each separate microscope and vernier. The prisms are carried behind the back glass plate on a circular frame in such a way that, on reversion of the instrument in azimuth, the whole set of prisms can at one motion of the frame be shifted so as to bring each one again opposite to its proper microscope or vernier.

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

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

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

The instrument carries two levels—one parallel to the plane of the vertical circle, the other at right angles to that plane—by means of which the instrument is adjusted

in level from time to time. The readings of the first-mentioned level are also regularly employed to correct the apparent value of dip for any small outstanding error of level; the correction seldom exceeds a very few seconds of arc.

Observations are made only in the plane of the magnetic meridian, and the following is a description of the method of proceeding. The needle to be used is first magnetised by double touch, giving it nine strokes on each of its sides: it is then placed in position in the instrument, the microscope scale-readings are taken, and the verniers of the vertical graduated circle are read: the readings of the level parallel to the plane of this circle are also read. The instrument is then reversed in azimuth, and a second observation made. The needle pivots are then reversed on the agate bearings, and two observations in reversed positions of the instrument again made. The needle is then removed from the instrument and re-magnetised, so as to reverse the direction of its poles, and four more observations are made in the way just described. The mean of the eight partial values of dip thus found, corrected for error of level, gives the final value of dip which appears in the printed results.

The needles in regular use in 1902 are of the ordinary construction; they are the 3-inch needles, D_1 and D_2.

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

The deflected magnet, used merely to ascertain the ratio which the power of the deflecting magnet at a given distance bears to the power of terrestrial magnetism, is 3 inches long, and carries a small plane mirror, to which is directed a telescope fixed to, and rotating with, the frame that carries also the suspension piece of the deflected magnet: a scale fixed to the telescope is seen by reflexion at the plane mirror. The deflecting magnet is a hollow cylinder 4 inches long, containing in its internal tube a collimator, by means of which in another apparatus its time of vibration is observed. In observations of deflexion the deflecting magnet is placed on the transverse deflexion rod, carried by the rotating frame, at the distances 1·0 foot and 1·3 foot of the engraved scale from the deflected magnet, and with one end towards the deflected magnet. Observations are made at the two distances mentioned, with the deflecting magnet both east and west of the deflected magnet, and also with its poles in reversed

positions. The fixed horizontal circle is 10 inches in diameter: it is graduated to 10′, and read by two verniers to 10″.

It will be convenient in this case to include with the description of the instrument an account of the method of reduction employed, in which the Kew precepts, and generally the Kew notation, are followed. Previous to the establishment of the instrument at the Royal Observatory, the values of the various instrumental constants, as determined at the Kew Observatory, were kindly communicated by 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 $1^{ft}{\cdot}0$ east to $1^{ft}{\cdot}0$ west of the engraved scale, at temperature 62°, is too long by 0·0034 inch, and the distance from $1^{ft}{\cdot}3$ east to $1^{ft}{\cdot}3$ 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:—

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

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

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

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

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,

$\dfrac{H}{F}$ = 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 $\dfrac{H}{F} = \dfrac{\theta}{90° - \theta}$, 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 $\dfrac{m}{X}$ 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 is approximately the same both in the Blackheath—North Kent East Junction circuit, which is perpendicular to the course of the electric railway, and in the Angerstein Wharf—Lady Well circuit, which is parallel to the line of railway, with one earth plate (Angerstein Wharf) near the river. At night when the trains are not running, the interruptions entirely cease.

§ 5. *Magnetic Reductions.*

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

Before the photographic records of magnetic declination, horizontal force, and vertical force are discussed, they are divided into two groups—one including all days on which the traces show no particular disturbance, and which, therefore, are suitable for the determination of diurnal inequality; the other comprising days of unusual and violent disturbance, when the traces are so irregular that it appears impossible to treat them except by the exhibition of every motion of each magnet through the day. Following the principle of separation hitherto adopted, there are no days in the year 1902 which are classed as days of great disturbance. Other days of lesser disturbance are January 15–16; April 10–11; May 9–10; August 21–22. When two days are mentioned, it is to be understood that the reference is usually to one set of photographic sheets extending from noon to noon, and including the last half and the first half respectively of two consecutive civil days.

Through each photographic trace, including those on days of lesser disturbance, a pencil line was drawn, representing the general form of the curve without its petty irregularities. The ordinates of these pencil curves were then measured, with the proper pasteboard scales, at every hour, the measures being entered in a form having double argument—the vertical argument ranging through the 24 hours of the civil day (0^h to 23^h), and the horizontal argument through the days of a calendar month; the means of the numbers standing in the vertical columns giving the mean daily value of the element, and the means of the numbers in the horizontal columns the mean monthly value at each hour of the day. Tables I. and II. contain the results for declination, Tables III. to VI. those for horizontal force, with corresponding tables of temperature, and Tables VII. to X. those for vertical force, with corresponding tables of temperature. In the formation of diurnal inequalities it is unimportant whether a day omitted be a complete civil day, or the parts of two successive civil days making together a whole day, although in the latter case the results are not available for daily values. No omissions have been made on account of disturbed days, in the formation of these Tables; but from other causes there are omitted in Tables I. and II. for declination, June 4 to 6, 24, 30; in Tables III. to VI. for horizontal force, December 31, in Tables VII. to X. for vertical force, there are no omissions.

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 *xix*), 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 January 28, which should be taken as 1028 for comparison with the preceding value, and similarly in other cases. The excess of the value of *c* above that of *u* on any day (supposing *c*, when the smaller value, to be increased by 1000) shows the correction for temperature that has been actually applied. In Tables II., V., IX., and XII. the separate hourly values of the different elements have been simply diminished by the smallest hourly value.

The variations of declination are given in the sexagesimal division of the circle, and those of horizontal and vertical force in terms of ·00001 of the whole horizontal and vertical forces respectively taken as units. In Tables XI. and XII. they have been also expressed in terms of ·00001 of Gauss's absolute unit, as referred to the metrical system of the millimètre-milligramme-second.

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

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

$$\text{H.F. in metrical measure} \times \sin 1' = 1{\cdot}8505 \times \sin 1' = 0{\cdot}0005383.$$

For variation of horizontal force, the factor is

$$\text{H.F. in metrical measure} = 1{\cdot}8505,$$

and for variation of vertical force

$$\begin{aligned}\text{V.F. in metrical measure} &= \text{H.F. in metrical measure} \times \tan \text{dip},\\ &= 1{\cdot}8505 \times \tan 67°.3'.5'' = 4{\cdot}3716.\end{aligned}$$

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

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

The magnetic diurnal inequalities of declination, horizontal force, and vertical force, for each month and for the year, as given in Tables II., V., and IX., have been

treated by the method of harmonic analysis, and the results are given in Tables XV. and XVI. The values of the coefficients contained in Table XV. have been thus computed, 0 representing the value at 0^h (midnight), 1 that at 1^h, and so on.

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

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

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

$$\begin{aligned}12\,a_2 = (0+12)-(6+18)+&\{(1+11+13+23)-(5+7+17+19)\}\cos 30^\circ\\&+\{(2+10+14+22)-(4+8+16+20)\}\cos 60^\circ.\end{aligned}$$

$$\begin{aligned}12\,b_2 = (3+15)-(9+21)+&\{(2+4+14+16)-(8+10+20+22)\}\sin 60^\circ\\&+\{(1+5+13+17)-(7+11+19+23)\}\sin 30^\circ.\end{aligned}$$

$$12\,a_3 = (0+8+16)-(4+12+20)+\{(1+7+9+15+17+23)-(3+5+11+13+19+21)\}\cos 45^\circ.$$

$$12\,b_3 = (2+10+18)-(6+14+22)+\{(1+3+9+11+17+19)-(5+7+13+15+21+23)\}\sin 45^\circ.$$

$$\begin{aligned}12\,a_4 = &(0+6+12+18)-(3+9+15+21)\\&+\{(1+5+7+11+13+17+19+23)-(2+4+8+10+14+16+20+22)\}\cos 60^\circ.\end{aligned}$$

$$12\,b_4 = \{(1+2+7+8+13+14+19+20)-(4+5+10+11+16+17+22+23)\}\sin 60^\circ.$$

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

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

Similarly for c_2, β, &c.

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

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

a mean value of h for the month being employed.

The values of a_5 and b_5 for the diurnal inequalities for the year were also calculated, but could not be conveniently included in Table XV. They are as follows :—

1902.	a_5.	b_5.
Declination	−0′·05	−0′·01
Horizontal Force	+0·4	−0·9
Vertical Force	+1·0	−0·4

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 1902.	Declination.	Horizontal Force.	Vertical Force.
Sums of Squares of Observed Values (Table XII.)	177·87	201741·1	13385·7
Sums of Squares of Residuals after the introduction of m	64·46	31286·5	1668·3
,, ,, a_1 and b_1	30·19	8866·0	1155·8
,, ,, a_2 and b_2	6·76	2170·2	338·9
,, ,, a_3 and b_3	0·86	501·4	52·4
,, ,, a_4 and b_4	0·06	26·8	17·9
,, ,, a_5 and b_5	0·03	15·0	4·1

The unit in the case of horizontal and vertical force being ·00001 of the whole horizontal and vertical forces respectively, it thus appears that there would be no advantage in carrying the approximation (Table XV.) beyond the determination of a_4, b_4.

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

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

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

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

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

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

The plates are preceded by a brief description of *all* other significant magnetic motions (superposed on the ordinary diurnal movement) recorded throughout the year. These, in combination with the plates, give very complete information on magnetic disturbances during the year 1902, 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 (xxviii).

An additional plate (II.) exhibits the registers of declination, horizontal force, and vertical force on four quiet days, which may be taken as types of the ordinary diurnal movement at four seasons of the year. These are given for the civil day as exhibiting more clearly the character of the diurnal movement. The earth currents on these days are very small.

The indications of horizontal and vertical force are given precisely as registered; they are therefore affected, slightly as compared with the amount of motion on disturbed days, by the small recorded changes of temperature of the magnets. The recorded hourly temperatures being inserted on the plates, reference to the temperature-correction of the magnets, given at page *xxx*, will show the effect produced. Briefly, an increase of about $4\frac{1}{2}^{\circ}$ of temperature throws the horizontal force curve upward by 0·001 of the whole horizontal force; an increase of about 5° of temperature throws the vertical force curve downward by 0·001 of the whole vertical force.

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

—	Length in Inches.					
	Of 1° of Declination.		Of 0·01 of Horizontal Force.		Of 0·01 of Vertical Force.	
	in.	mm.	in.	mm.	in.	mm.
On the Photographs -	4·691	119·15	2·468	62·68	5·694	144·62
On the Plates -	2·580	65·53	1·357	34·47	3·132	79·54

The scales actually attached to the plates are, however, so arranged as to correspond with the tables of the magnetic section—that is to say, the units for horizontal force and vertical force are ·00001 of the whole horizontal and vertical forces respectively, the numbers being in some cases increased by 1000 to avoid negative quantities. At the foot of each plate equivalent scales, in C.G.S. measure, are given for each of the magnetic registers. (See page *xxxvi*.)

Since the preceding scale values are not immediately comparable for the different elements, it therefore becomes desirable to refer them all to the same unit, say 0·01 of the horizontal force.

Now, the transverse force represented by a variation of 1° of Declination
= ·0175 of Horizontal Force,
and Vertical Force = Horizontal Force × tan dip [adopted dip = 67°.3′.25″]
= Horizontal Force × 2·3624;

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

—	Length of Unit, Equivalent to 0·01 of Horizontal Force.					
	For Declination Curve.		For Horizontal Force Curve.		For Vertical Force Curve.	
	in.	mm.	in.	mm.	in.	mm.
On the Photographs -	2·68	68·1	2·47	62·7	2·41	61·2
On the Plates -	1·47	37·4	1·36	34·5	1·33	33·7

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 1902	= 4·0134
Millimètre-milligramme-second,	or Metric unit,	,,	,, ,,	= 1·8505
Centimètre-gramme-second,	or C.G.S. unit,	,,	,, ,,	= 0·18505

Dividing, therefore, the scale values last given by 4·0134, 1·8505, and 0·18505 respectively, the following comparative scale values for each of the elements on the photographs and on the plates as referred to 0·01 of these units respectively are found :—

Unit.	Length of 0·01 of Unit.											
	Declination.				Horizontal Force.				Vertical Force.			
	On the Photographs.		On the Plates.		On the Photographs.		On the Plates.		On the Photographs.		On the Plates.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.
British -	0·67	17·0	0·37	9·3	0·61	15·6	0·34	8·6	0·60	15·3	0·33	8·4
Metric -	1·45	36·8	0·80	20·2	1·33	33·9	0·73	18·6	1·30	33·1	0·72	18·2
C.G.S. -	14·5	368	8·0	202	13·3	339	7·3	186	13·0	331	7·2	182

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) on week days; and at 10^h, noon, and 20^h on Sundays. Each reading is corrected by application of the index-correction above mentioned, and reduced to the temperature 32° by means of Table II. of the "Report of the Committee of Physics" of the Royal Society. The readings thus found are used to determine the value of the instrumental base line on the photographic record.

PHOTOGRAPHIC BAROMETER.—The barometric record is made on the same cylinder as is used for magnetic vertical force, the register being arranged to fall on the upper half of the cylinder, on its eastern side. A siphon barometer fixed to the northern wall of the Magnet Basement is employed, the bore of the upper and lower extremities of the tube being about 1·1 inch, and that of the intermediate portion 0·3 inch. A metallic plunger, floating on the mercury in the shorter arm of the siphon, is partly supported by a counterpoise acting on a light lever, leaving a definite part of its weight to be supported by the mercury. The lever until February 12 carried at its other end a vertical plate of blackened mica, having a small horizontal slit, whose distance from the fulcrum is about eight times that of the point of connexion with the float, and whose vertical movement is therefore about four times that of the ordinary barometric column. On February 13 the mica was replaced by an aluminium plate. 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 = $4^{in}\cdot39$ on the paper while the mica plate was in use, and = $4^{in}\cdot16$ after the aluminium plate was substituted. Ordinates measured for the times of observation of the standard barometer, combined with the corrected readings of the standard barometer, give apparent values of the base line, from which mean values for each day are formed; these are written on the sheets

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

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

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

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

The dry bulb and wet bulb thermometers used throughout the year were Negretti and Zambra, Nos. 45354 and 45356 respectively. The correction $-0^{\circ}\cdot3$ has been applied to the readings of both these thermometers.

The self-registering thermometers for temperature of air and evaporation are all by Negretti and Zambra. The maximum thermometers are on Negretti and Zambra's principle, the minimum thermometers are of Rutherford's construction. To the readings of Negretti and Zambra, No. 83760, for maximum temperature of the air, a correction has been applied of $-0^{\circ}\cdot1$; and to those of Negretti and Zambra, No. 38338, for minimum temperature of the air, a correction of $+0^{\circ}\cdot2$ has been applied. The readings of Negretti and Zambra, No. 79224, for maximum temperature of evaporation required no correction. This thermometer was accidentally broken on May 9, and Browning 1170 was used from May 9 to June 2, no correction being required. From June 2 Negretti and Zambra 102104, with a correction of $+0^{\circ}\cdot1$, was in use. To the readings of Negretti and Zambra, No. 98508, for minimum temperature of evaporation, a correction of $+0^{\circ}\cdot2$ has been applied whenever they exceeded 59°.

The dry and wet bulb thermometers are read at 9^{h}, 12^{h} (noon), 15^{h}, 21^{h} (civil reckoning) on week days, and at 10^{h}, noon, and 20^{h} on Sundays. Readings of the maximum and minimum thermometers are taken at 9^{h} and 21^{h} on week days, and at 10^{h} and 20^{h} on Sundays. Those of the dry and wet bulb thermometers are employed to correct the indications of the photographic dry and wet bulb thermometers.

In the year 1887, four thermometers—a dry-bulb, and a wet-bulb with maximum and minimum thermometers for air temperature—were mounted in a Stevenson screen, with double louvre-boarded sides, of the pattern adopted by the Royal Meteorological Society, which is fully described in the *Quarterly Journal* of the Society, vol. x. page 92. The screen is planted in the Magnet ground 20 feet east-north-east of the photographic thermometers, and its internal dimensions are, length 18 inches, width 11 inches, and height 15 inches, the bulbs of the thermometers placed in it being at a height of about 4 feet above the ground. The dry-bulb thermometer is Hicks No. 262495, to the readings of which a correction of $-0^{\circ}\cdot1$ has been applied. The wet-bulb is Hicks No. 268525, to the readings of which a correction of $+0^{\circ}\cdot1$ has been applied. The maximum thermometer is Negretti and Zambra, No. 85059, which required no correction. To the readings of the minimum thermometer, Negretti and Zambra, No. 68873, a correction of $+0^{\circ}\cdot3$ has been applied. The observation of the dry and wet bulb thermometers is omitted on Sundays and a few other days.

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

At the beginning of the year 1886 three thermometers were mounted on the platform above the Magnet House, in a louvre-boarded shed or screen, so constructed as to give free circulation of air with protection from radiation. The thermometer for eye-observation of the temperature of the air used in the year 1902 was Hicks, No. 268524, which required no correction. Negretti and Zambra, No. 37467, is a self-registering maximum thermometer, to the readings of which a correction of $-0^{\circ}\cdot5$ has been applied. No. 342663, by Hicks, is a self-registering minimum thermometer, to the readings of which corrections have been applied as follow: 20° to 33° $-$ 0°·1, 33° to 40° 0°·0, 40° to 46° + 0°·1, 46° to 53° + 0°·2, 53° to 58° + 0°·3, 58° to 62° + 0°·4, and above 62° + 0°·5. The bulbs of all these thermometers are 4 feet above the platform, and about 20 feet above the ground. The eye-observation of the thermometer for temperature of the air is omitted on Sundays and a few other days.

On 1900 March 31, an additional Stevenson screen, similar to the screen already mounted in the Magnet ground, was erected in the Magnetic Pavilion enclosure, 15 feet north-east of the open stand. The dry and wet-bulb thermometers mounted in this screen are Negretti and Zambra, Nos. 94713 and 94714, which required no correction to their readings. To the readings of the maximum thermometer, Negretti and Zambra, No. 85066, no correction is required, and to those of the minimum thermometer, Negretti and Zambra, No. 85080, a correction of + 0°·2 has been applied.

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

between to ensure a free circulation of air while screening the thermometers from the direct rays of the sun. The thermometers are further protected from sky and ground radiation by boards on the thermometer stand as described below. The photographic register is received on paper placed on a vertical ebonite cylinder $11\frac{1}{2}$ inches high and $14\frac{1}{4}$ inches in circumference, and I have arranged that the dry and wet-bulb traces shall fall on the same part of the cylinder, as regards time scale, a long air-bubble in the wet-bulb thermometer column giving the means of registering the indications of the wet bulb (as well as of such degrees and decades of its scale as fall within the bubble), just below the trace of the dry-bulb thermometer, without any interference of the two records, an arrangement which admits of the time scale being made equal to that of all the other registers. The stems of the thermometers are placed close together, each being covered by a vertical metal plate having a fine vertical slit, so that light passes through only at such parts of the bore of the tube as do not contain mercury. Two gas lamps, each at a distance of 21 inches, are placed at such an angle that the light from each, after passing through its corresponding slit and thermometer tube, falls on the photographic paper in one and the same vertical line. Degree lines etched upon the thermometer stems, and painted, interrupt the light sufficiently to produce a clear and sharp indication on the photographic sheet, the line at each tenth degree being thicker than the others, as well as those at 32°, 52°, 72°, &c. The length of scale is from 0° to 120° for each thermometer, the length of 1° being about 0·1 inch, and the air-bubble in the wet-bulb thermometer is about 12° in length, so that it will always include one of the ten-degree lines. The bulbs, which are 2 inches long and of about $\frac{1}{2}$ an inch in internal bore, are separated horizontally by 5 inches, the tubes of the thermometers having a double bend above the bulbs, which are placed about 4 feet above the ground. The thermometers are carried by a vertical frame with independent vertical adjustment for each thermometer, so that the register in summer or winter can be brought to a convenient part of the photographic sheet. The revolving cylinder is driven by a pendulum clock contained within the brass case covering the whole apparatus, excepting the thermometer bulbs which project below. It makes one revolution in 26 hours, and the time scale is the same as that for all the other registers. As the cylinder revolves, the light passing through the portion of the thermometer tubes not occupied by mercury imprints on the paper a broad band of photographic trace, corresponding to the dry-bulb register, whose breadth in the vertical direction varies with the height of the mercury in the tube, and a narrower band below, corresponding to the wet bulb. When these are developed, the traces are seen to be crossed by thin white lines, the horizontal lines corresponding to degrees, and the vertical lines to hours, the lower boundary of each trace indicating the thermometric record corresponding to the upper surface of the thermometric column.

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

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

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

RADIATION THERMOMETERS.—These thermometers are placed in the Magnetic Pavilion enclosure, in an open position about 50 feet south-west of the building. The thermometer for solar radiation is a self-registering mercurial maximum thermometer on Negretti and Zambra's principle, with its bulb blackened, and the thermometer enclosed in a glass sphere from which the air has been exhausted. The thermometer employed until April 17 was Negretti and Zambra, No. 81817, when it was accidentally broken. Negretti and Zambra, No. 94014, was brought into use until July 16. It appeared to be faulty, and was replaced by Negretti and Zambra, No. 99989, which was employed for the remainder of the year from July 16. The thermometer for radiation to the sky is a self-registering spirit minimum thermometer of Rutherford's construction, by Horne and Thornthwaite, No. 3120. The thermometers are laid on short grass and freely exposed to the sky; they require no correction for index-error.

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

The thermometers are four in number, placed in one hole in the ground, the diameter of which in its upper half is 1 foot and in its lower half about 6 inches, each thermometer being attached in its whole length to a slender piece of wood. The thermometer No. 1 was dropped into the hole to such a depth that the centre of its bulb was 24 French feet (25·6 English feet) below the surface; then dry sand was poured in till the hole was filled to nearly half its height. Then No. 2 was

dropped in till the centre of its bulb was 12 French feet below the surface; Nos. 3 and 4 till the centres of their bulbs were respectively 6 and 3 French feet below the surface; and the hole was then completely filled with dry sand. The upper parts of the tubes carrying the scales were left projecting above the surface; No. 1 by 27·5 inches, No. 2 by 28·0 inches, No. 3 by 30·0 inches, and No. 4 by 32·0 inches. Of these lengths, 8·5, 10·0, 11·0, and 14·5 inches respectively are in each case tube with narrow bore. The length of 1° on the scales is 1·9 inch, 1·1 inch, 0·9 inch, and 0·5 inch in each case respectively. The ranges of the scales are for No. 1, 46°·0 to 55°·5; No. 2, 43°·0 to 58°·0; No. 3, 44°·0 to 62°·0; and for No. 4, 36°·9 to 68°·0.

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

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

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

These thermometers are read every day at noon, and the readings are given without correction. The index-errors of Nos. 1, 2, 3, and 4 are unknown; No. 5 appears to read too high by 0°·2, and No. 6 by 0°·4, but no corrections have been applied.

OSLER'S ANEMOMETER.—This self-registering anemometer, devised by A. Follett Osler, for continuous registration of the direction and pressure of the wind and of the amount of rain, is fixed above the north-western turret of the ancient part of the observatory. For the direction of the wind a large vane ($9^{ft.}$ $2^{in.}$ in length), from which a vertical shaft proceeds down to the registering table within the turret, gives motion, by a pinion fixed at its lower end, to a rack-work carrying a pencil. A collar on the vane shaft bears upon anti-friction rollers running in a cup of oil, rendering the vane very sensitive to changes of direction in light winds. The pencil marks a paper fixed to a board moved horizontally and uniformly by a clock, in a direction transverse to that of the motion of the pencil. The paper carries lines corresponding to the positions of N., E., S., and W. of the vane, with transversal hour lines. The vane

is 25 feet above the roof of the Octagon Room, 60 feet above the adjacent ground, and 215 feet above the mean level of the sea. A fixed mark on the north-eastern turret, in a known azimuth, as determined by celestial observation, is used for examining at any time the position of the direction plate over the registering table, to which reference is made by means of a direction pointer when adjusting a new sheet on the travelling board. 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.

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 1902 eight rain gauges were employed, placed at different elevations above the ground, complete information in regard to which will be found at page (cv) 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.

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

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

Gauge No. 6 is an 8-inch circular gauge placed on the ground in the Magnetic Pavilion enclosure, about 10 feet north-west of the thermometer stand, and gauges Nos. 7 and 8, also 8-inch circular gauges, are placed on the ground south-east of the Magnetic Observatory; No. 6 is the Standard gauge, No. 7 the old monthly gauge, and No. 8 an additional gauge brought into use in July 1881 as a check on the readings of Nos. 6 and 7. No. 6 is read daily, usually at 9^h, 15^h, and 21^h Greenwich civil time, and Nos. 7 and 8 at 9^h only.

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

ELECTROMETER.—The electric potential of the atmosphere is measured by means of a Thomson self-recording electrometer, constructed by White, of Glasgow.

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

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

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

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

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

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

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

parable with those of the Meteorological Office Stations. A very complete account of the Campbell-Stokes instrument is given in the *Quarterly Journal of the Royal Meteorological Society*, vol. vi. page 83. The recording cards are supported by carriers no larger than is required for keeping them in proper position; one straight card serves for the equinoctial periods of the year, and another, curved, for the solstitial periods, the only difference between the summer and winter cards being that the summer cards are the longer: grooves are provided so that the cards are placed in position with great readiness. The daily record is transferred to a sheet of paper specially ruled with equal vertical spaces to represent hours, each sheet containing the record for one calendar month. The daily sums, and sums for each hour (reckoning from *apparent* midnight) through the month, are thus readily formed. The recorded durations are to be understood as indicating the amount of *bright* sunshine, no register being obtained when the sun shines faintly through fog or cloud, or when the sun is very near the horizon. Until 1896 February 5 the instrument was placed on a table upon the platform above the Magnetic Observatory, about 21 feet above the ground, and 176 feet above mean sea level. On account of the extension of the buildings in the south ground, it was found necessary on 1896 February 6 to remove the sunshine recorder from the roof of the Magnetic Observatory to a commanding position on the stage carrying the Robinson anemometer, on the roof of the Octagon Room, about 50 feet above the ground. A clear view of the sun is obtained in this position from sunrise to sunset, but some inconvenience is caused by the smoke from neighbouring chimneys. Very little record is obtained near to sunrise at any part of the year.

It was pointed out by Mr. Marriott, Secretary of the Royal Meteorological Society, towards the end of 1896, that the record by the Campbell-Stokes instrument exhibited a notable falling off. This, though not very marked till 1896, had certainly begun in 1894, and it was found to be due to opacity in the glass globe, which appears to have deteriorated. On 1897 January 1 a globe of clearer glass, presented to the Royal Observatory in 1881 by 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 is 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 are exposed is of wood: it is about 8 inches square, blackened inside, and so constructed that there is free circulation of air through the box, without exposure of the paper to light. The papers exposed at 9^h, 15^h, and 21^h are collected respectively at 15^h, 21^h, and 9^h, and the degree of tint produced is compared with a scale of graduated tints, numbered from 0 to 10. The value of ozone for the civil day is determined by taking the degree of tint obtained at each hour

of collection as proportional to the period of exposure. Thus, to form the value for any given civil day, three-fourths of the value registered at 9^h, the values registered at 15^h and 21^h, and one-fourth of that registered at the following 9^h, are added together, the resulting sum (which appears in the tables of "Daily Results of the Meteorological Observations") being taken as the value referring to the civil day on a scale of 0 to 30. The means of the 9^h, 15^h, and 21^h values, as observed, are also given for each month in the footnotes.

§ 7. *Meteorological Reductions.*

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

All results in regard to atmospheric pressure, temperature of the air and of evaporation with deductions therefrom, and atmospheric electricity, are derived from the photographic records, excepting that the maximum and minimum values of air temperature are those given by eye observation of the ordinary maximum and minimum thermometers at 9^h and 21^h (civil reckoning), reference being made, however, to the photographic register when necessary to obtain the values corresponding to the civil day from midnight to midnight. The hourly readings of the photographic traces for the elements mentioned are entered into a form having double argument, the horizontal argument ranging through the 24 hours of the civil day (0^h to 23^h), and the vertical argument through the days of a calendar month. Then for all the photographic elements, the means of the numbers standing in the vertical columns of the monthly forms, into which the values are entered, give the mean monthly photographic values for each hour of the day, the means of the numbers in the horizontal columns giving the mean daily value. It should be mentioned that before measuring out the electrometer ordinates, a pencil line was first drawn through the trace to represent the general form of the curve, in the way described for the magnetic registers (page *xxix*), excepting that no day has been omitted on account of unusual electrical disturbance, as it has been found difficult to decide on any limit of disturbance beyond which it would seem proper, as regards determination of diurnal inequality, to reject the results. In measuring the electrometer ordinates a scale of inches is used, and the values given in the tables which follow are expressed in thousandths of an inch, positive and negative potential being denoted by positive and negative numbers respectively. The scale has not been determined in terms of any electrical unit.

To correct the photographic indications of barometer and dry and wet bulb thermometers for small instrumental error, the means of the photographic readings at 9^h, 12^h (noon), 15^h, and 21^h in each month are compared with the corresponding corrected mean readings of the standard barometer and standard dry and wet bulb thermometers,

as given by eye observation. A correction applicable to the photographic reading at each of these hours is thus obtained, and, by interpolation, corrections for the intermediate hours are found. The mean of the twenty-four hourly corrections in each month is adopted as the correction applicable to each mean daily value in the month. Thus mean hourly and mean daily values of the several elements are obtained for each month. The process of correction is equivalent to giving photographic indications in terms of corrected standard barometer, and in terms of the standard dry and wet bulb thermometers exposed on the free stand. The barometer results are *not* reduced to sea level, neither are they corrected for the effect of gravity, by reduction to the latitude of 45°.

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

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

Reading of Dry-bulb Thermometer.	Factor.	Reading of Dry-bulb Thermometer.	Factor.	Reading of Dry-bulb Thermometer.	Factor.	Reading of Dry-bulb Thermometer.	Factor.
°		°		°		°	
10	8·78	33	3·01	56	1·94	79	1·69
11	8·78	34	2·77	57	1·92	80	1·68
12	8·78	35	2·60	58	1·90	81	1·68
13	8·77	36	2·50	59	1·89	82	1·67
14	8·76	37	2·42	60	1·88	83	1·67
15	8·75	38	2·36	61	1·87	84	1·66
16	8·70	39	2·32	62	1·86	85	1·65
17	8·62	40	2·29	63	1·85	86	1·65
18	8·50	41	2·26	64	1·83	87	1·64
19	8·34	42	2·23	65	1·82	88	1·64
20	8·14	43	2·20	66	1·81	89	1·63
21	7·88	44	2·18	67	1·80	90	1·63
22	7·60	45	2·16	68	1·79	91	1·62
23	7·28	46	2·14	69	1·78	92	1·62
24	6·92	47	2·12	70	1·77	93	1·61
25	6·53	48	2·10	71	1·76	94	1·60
26	6·08	49	2·08	72	1·75	95	1·60
27	5·61	50	2·06	73	1·74	96	1·59
28	5·12	51	2·04	74	1·73	97	1·59
29	4·63	52	2·02	75	1·72	98	1·58
30	4·15	53	2·00	76	1·71	99	1·58
31	3·70	54	1·98	77	1·70	100	1·57
32	3·32	55	1·96	78	1·69		

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

The excess of the mean temperature of the air on each day above the average of 50 years, given in the "Daily Results of the Meteorological Observations," is found by comparing the numbers contained in column 6 with a table of average daily temperatures found by smoothing the accidental irregularities of the daily means deduced from the observations for the fifty years 1841–1890. In this series the mean daily temperature from 1841 to 1847 depends usually on 12 observations daily, in 1848 on 6 observations daily, and from 1849 to 1890 on 24 hourly readings from the photographic record. The smoothed numbers are given in the following table.

ADOPTED VALUES of MEAN TEMPERATURE of the AIR, deduced from the OBSERVATIONS for the Fifty Years 1841–1890.

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

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

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

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

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

The mean amount of cloud given in the footnotes on the right-hand pages (xxxi) to (liii), and in the abstract table, page (lvii), 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 fifty years 1841–1890.

The tables following the "Daily Results" require no lengthened explanation. They consist of tables giving the highest and lowest readings of the barometer through the year; monthly abstracts of the principal meteorological elements; hourly values in each month of barometer-reading, of temperature of air, evaporation, and dew-point, and of degree of humidity; sunshine results; observations of thermometers in a Stevenson screen in the Observatory Grounds, on the roof of the Magnet House, and in another Stevenson screen in the Magnetic Pavilion Enclosure; readings of the earth thermometers; changes of direction of the wind; hourly values in each month of the horizontal movement of the air derived from Robinson's Anemometer; results derived from the Thomson Electrometer; rain results; and observations of meteors.

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

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

pages (xxx) to (lii), and in the table on page (lvii), 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 (xciii), 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 (xcix), is formed. By direct motion it is to be understood that the change of direction occurred in the order N, E, S, W, N, &c., and by retrograde motion that the change occurred in the order N, W, S, E, N, &c.

In regard to Electric Potential of the Atmosphere, in addition to giving the hourly values in each month, including all available days, the days in each month have been (since the year 1882) further divided into two groups, one containing all days on which the rainfall amounted to or exceeded $0^{in.}020$, the other including only days on which no rainfall was recorded, the values of daily rainfall given in column 16 of the "Daily Results of the Meteorological Observations" being adopted in selecting the days. These additional tables are given on pages (ciii) and (civ) 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 1902 were Mr. Nash, Mr. A. Showell, Mr. Parkinson, Mr. Perry, Mr. Burkett and Mr. Staples. Their observations are distinguished by the initials N, S, P, W.P., B, and T.S., respectively.

W. H. M. CHRISTIE.

ROYAL OBSERVATORY, GREENWICH,
1904, January 29.

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL OBSERVATIONS,

1902.

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

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

1902.

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

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

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

1902.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Midn.	0·1	0·5	1·9	2·0	2·5	3·4	3·1	2·4	1·6	1·2	0·1	0·4
1h	0·3	0·9	2·1	2·0	2·4	3·3	3·1	2·6	1·6	1·5	0·4	0·7
2	0·7	1·2	2·1	1·9	2·3	3·1	2·7	2·5	1·5	1·6	0·8	0·8
3	1·1	1·2	2·1	1·8	2·2	2·9	2·6	2·3	1·4	1·7	1·0	0·9
4	1·3	1·1	1·8	1·7	1·8	2·3	2·3	1·9	1·3	1·7	1·2	1·0
5	1·2	1·0	1·6	1·6	0·9	1·2	1·1	1·1	1·1	1·7	1·2	1·0
6	1·0	0·9	1·3	1·5	0·3	0·2	0·1	0·5	0·6	1·5	1·1	0·9
7	0·7	0·9	0·8	0·7	0·0	0·0	0·0	0·0	0·0	0·9	0·9	0·7
8	0·2	0·6	0·0	0·0	0·1	0·2	0·2	0·2	0·0	0·0	0·6	0·5
9	0·0	0·7	0·4	0·2	0·9	1·2	1·1	1·4	0·9	0·1	0·6	0·7
10	0·8	1·6	2·0	1·9	2·6	3·1	2·8	3·4	2·7	2·0	1·7	1·3
11	1·7	2·8	4·4	4·2	4·6	5·8	5·0	6·0	5·0	4·5	3·1	2·0
Noon.	2·6	3·6	6·1	6·5	6·4	7·7	7·0	8·4	6·4	6·4	3·7	2·4
13h	3·6	4·0	6·9	7·6	7·1	8·3	7·8	9·5	6·8	6·9	3·9	2·6
14	3·0	3·7	5·8	7·0	6·8	8·1	7·7	8·4	5·8	6·2	3·1	2·1
15	2·3	2·6	4·6	5·5	5·8	7·2	6·7	6·5	4·5	4·6	2·3	1·6
16	1·9	1·8	3·0	4·3	4·9	6·1	5·5	4·5	3·3	3·2	1·9	1·3
17	1·7	1·6	2·3	3·3	3·9	4·7	4·4	3·0	2·5	2·9	1·6	1·0
18	1·4	1·3	2·5	2·4	3·2	4·0	4·0	2·7	2·2	2·6	1·2	0·7
19	1·0	1·3	2·2	2·2	2·8	3·7	3·9	2·8	1·8	2·2	1·0	0·6
20	0·7	1·0	2·0	2·2	2·8	3·6	3·8	2·7	1·5	1·8	0·6	0·2
21	0·2	0·4	1·8	2·0	2·5	3·6	3·6	2·4	1·3	1·3	0·3	0·0
22	0·0	0·0	1·8	1·8	2·6	3·6	3·6	2·4	1·3	1·1	0·0	0·1
23	0·0	0·3	1·7	1·7	2·5	3·6	3·3	2·5	1·3	1·1	0·1	0·2
Means	1·15	1·46	2·55	2·75	3·00	3·79	3·56	3·34	2·35	2·45	1·35	0·99

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.*)

1902.

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	433	008	433	998	594	142	545	144	514	091	707	352	724	330	728	288	815	404	560	154	505	087	670	218
2	436	016	431	984	535	083	520	112	536	113	703	297	712	294	677	264	784	385	575	183	539	140	664	222
3	436	025	396	966	553	101	519	082	555	142	743	323	690	279	721	303	782	398	563	123	543	144	580	148
4	482	050	405	973	555	115	491	056	603	163	731	359	652	246	685	279	777	381	537	121	572	147	542	088
5	458	011	417	965	574	125	476	072	550	130	737	321	627	277	682	295	767	354	525	114	529	154	483	070
6	426	010	411	964	550	113	503	071	560	113	695	287	682	314	747	353	747	327	542	131	616	227	450	046
7	409	015	418	981	582	147	508	064	538	125	667	254	695	330	795	384	688	287	560	156	650	242	467	051
8	435	000	363	926	556	138	502	070	575	157	620	219	678	313	700	311	661	267	567	156	667	261	487	069
9	423	998	381	944	555	139	491	047	507	094	640	234	729	361	710	297	708	297	605	206	604	208	515	085
10	434	035	417	956	555	135	512	068	479	061	676	248	703	297	715	302	739	340	631	227	564	192	483	072
11	444	036	470	995	568	172	391	963	451	055	634	257	698	270	680	240	778	374	668	262	625	212	501	066
12	460	042	439	976	538	110	480	048	469	087	649	245	615	233	655	237	781	353	626	198	621	227	504	084
13	425	012	478	990	517	106	464	063	552	124	702	265	642	229	699	276	653	218	601	212	608	195	546	142
14	425	995	492	006	503	116	459	043	535	119	703	266	661	257	705	325	642	238	604	217	627	221	592	186
15	350	927	495	018	563	135	515	121	553	133	694	271	723	334	759	363	625	255	633	203	626	210	614	194
16	266	848	490	983	550	113	576	151	602	196	639	245	662	282	806	388	657	251	600	182	600	172	587	181
17	368	928	462	985	563	150	550	142	628	212	683	282	696	300	741	364	575	200	550	144	579	154	598	233
18	381	968	460	988	600	148	569	161	605	185	733	334	681	277	797	398	587	171	606	202	564	124	665	237
19	390	950	474	007	583	129	591	185	608	185	703	304	614	220	786	382	564	144	593	149	541	097	630	226
20	417	987	443	989	574	154	585	203	601	166	699	312	615	216	778	355	494	122	582	186	544	102	615	211
21	410	011	383	979	547	131	600	184	540	158	733	317	608	216	732	328	545	151	603	173	555	099	669	239
22	491	071	453	037	592	167	641	230	620	188	669	265	632	216	665	233	596	204	555	132	555	094	668	252
23	474	063	458	083	589	133	608	212	643	254	609	259	671	263	733	310	650	239	549	153	550	127	589	161
24	440	039	487	098	580	148	624	196	682	300	706	317	598	230	765	345	600	225	562	168	452	022	584	135
25	437	976	500	096	522	078	566	153	679	290	676	311	570	157	752	334	592	208	562	170	479	083	604	174
26	439	983	516	064	549	095	583	139	649	231	671	270	616	227	749	348	595	184	578	174	580	157	605	194
27	410	987	559	101	545	113	496	100	654	222	649	250	639	228	737	309	598	216	601	190	618	202	588	196
28	465	028	568	138	495	101	471	041	654	253	729	330	688	244	775	357	599	212	589	166	580	191	607	191
29	440	986			513	112	483	055	611	224	735	351	673	253	742	358	621	222	570	171	629	204	622	182
30	461	994			542	087	495	103	615	235	690	298	653	247	745	349	557	156	558	166	660	208	598	168
31	442	998			550	115			690	294			674	268	758	340			440	029			...	...

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

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

1902.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	66°·7	66°·3	65°·6	67°·7	66°·8	69°·6	68°·0	66°·1	67°·3	67°·5	67°·0	65°·6
2	66·9	65·8	65·6	67·4	66·8	67·5	67·0	67·2	67·8	68·1	67·8	66·0
3	67·3	66·5	65·6	66·2	67·2	66·9	67·3	67·0	68·4	66·1	67·8	66·4
4	66·4	66·4	66·1	66·3	66·1	68·9	67·5	67·5	67·9	67·1	66·7	65·5
5	65·8	65·6	65·7	67·6	66·9	67·1	69·8	68·3	67·2	67·3	68·8	67·2
6	67·1	65·8	66·2	66·4	65·8	67·4	69·1	68·0	66·9	67·3	68·2	67·6
7	68·0	66·2	66·3	65·9	67·2	67·2	69·2	67·3	67·7	67·6	67·4	67·1
8	66·3	66·2	67·0	66·4	67·0	67·7	69·2	68·2	68·0	67·3	67·5	67·0
9	66·7	66·2	67·1	65·9	67·2	67·5	69·1	67·2	67·3	67·8	67·9	66·5
10	67·8	65·2	66·9	65·9	67·0	66·6	67·5	67·2	67·8	67·6	68·9	67·3
11	67·4	64·6	67·9	66·6	67·9	68·7	66·6	66·1	67·6	67·5	67·2	66·3
12	67·0	65·1	66·6	66·4	68·5	67·6	68·5	67·0	66·6	66·6	68·0	66·9
13	67·2	64·0	67·3	67·7	66·6	66·2	67·2	66·8	66·3	68·2	67·2	67·6
14	66·5	64·1	68·3	67·1	67·1	66·2	67·6	68·6	67·6	68·3	67·5	67·5
15	66·8	64·5	66·6	68·0	66·9	66·8	68·2	67·9	69·0	66·5	67·1	66·9
16	67·0	63·2	66·2	66·7	67·5	68·0	68·6	67·0	67·5	67·0	66·6	67·5
17	66·1	64·5	67·2	67·4	67·1	67·7	67·9	68·7	68·8	67·5	66·7	69·2
18	67·2	64·7	65·6	67·4	66·9	67·8	67·6	67·8	67·1	67·6	66·1	66·6
19	66·1	64·9	65·5	67·5	66·8	67·8	68·0	67·6	66·9	65·9	65·9	67·6
20	66·5	65·5	66·9	68·5	66·3	68·3	67·8	66·8	68·9	67·9	66·0	67·6
21	67·8	67·6	67·1	67·1	68·5	67·1	68·1	67·6	68·0	66·5	65·4	66·5
22	66·9	67·1	66·7	67·3	66·4	67·6	67·1	66·4	68·1	66·8	65·2	67·1
23	67·3	68·8	65·4	67·9	68·2	69·8	67·4	66·8	67·3	67·9	66·8	66·6
24	67·7	68·2	66·4	66·6	68·5	68·2	69·1	66·9	68·8	68·0	66·5	65·7
25	65·2	67·6	65·9	67·2	68·2	69·2	67·2	67·0	68·4	68·1	67·9	66·5
26	65·4	65·6	65·5	65·9	67·0	67·7	68·2	67·7	67·3	67·6	66·8	67·3
27	66·8	65·3	66·4	67·9	66·4	67·8	67·3	66·6	68·5	67·3	67·1	68·1
28	66·2	66·5	68·0	66·5	67·7	67·8	65·9	67·0	68·3	66·8	68·2	67·1
29	65·5		67·7	66·6	68·3	68·4	66·9	68·4	67·8	67·8	66·7	66·1
30	64·9		65·4	68·1	68·6	68·1	67·5	67·9	67·7	68·1	65·6	66·5
31	65·9		66·3		67·9		67·5	67·0		67·3		...
Means	66°·66	65°·79	66°·48	67°·00	67°·27	67°·77	67°·87	67°·34	67°·76	67°·38	67°·08	66°·91

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.)*

1902.

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.	34	53	26	55	77	108	142	157	93	107	131	143	138	148	146	156	135	145	146	153	55	72	13	30
1h	35	50	25	49	77	103	131	146	91	105	126	138	136	146	145	155	131	139	145	152	56	70	17	32
2	43	53	34	55	79	103	122	134	82	96	116	126	133	143	144	154	127	135	143	150	61	75	25	37
3	55	60	35	52	84	103	117	127	78	90	109	119	133	141	139	147	123	131	148	153	69	81	30	40
4	65	68	39	53	89	103	121	128	77	86	113	123	140	148	136	144	122	130	151	156	74	83	38	46
5	75	75	49	61	95	104	124	129	73	82	111	118	133	138	131	136	117	122	152	157	83	90	50	55
6	81	79	54	63	97	104	121	124	63	70	87	92	104	109	112	117	104	109	153	156	85	92	57	62
7	83	81	57	64	87	91	113	116	36	40	57	62	77	80	83	86	81	84	132	135	80	87	54	57
8	67	65	50	57	56	60	87	87	14	18	32	34	52	55	46	49	43	46	87	90	57	64	40	43
9	37	35	23	28	21	23	39	39	2	4	7	9	22	22	12	12	10	10	34	37	25	32	18	21
10	16	14	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	0	0
11	0	0	0	0	3	3	4	4	5	5	16	16	12	15	20	23	21	19	4	2	0	0	0	0
Noon.	2	2	0	0	25	22	36	36	22	19	48	48	51	54	67	70	62	60	37	35	15	12	6	4
13h	23	26	13	13	44	44	68	66	39	39	71	71	89	92	121	124	92	92	68	66	40	40	19	19
14	41	46	27	30	62	64	97	97	65	69	97	102	130	135	143	148	106	109	96	94	55	55	32	32
15	45	52	33	38	72	79	114	117	90	99	123	128	152	160	148	153	112	115	111	109	50	52	28	28
16	42	52	34	43	72	81	128	133	104	116	128	135	152	160	149	154	112	117	118	118	53	58	21	24
17	43	62	29	41	69	83	136	141	114	128	145	155	156	166	151	159	112	117	131	134	58	67	16	24
18	44	66	27	46	75	91	141	146	122	136	168	178	169	179	162	170	121	126	135	138	57	71	20	30
19	42	64	25	49	87	108	147	152	122	136	177	187	184	194	174	182	134	139	141	144	64	78	22	37
20	40	62	22	48	85	111	150	155	118	130	173	183	180	190	183	193	139	144	143	146	65	82	14	29
21	32	54	19	48	80	111	147	152	117	129	162	172	165	175	174	184	138	143	140	143	60	77	10	27
22	29	51	17	48	78	111	144	151	109	121	148	158	156	166	160	170	136	141	142	145	59	76	4	21
23	34	56	25	54	82	115	142	154	104	118	139	151	144	154	153	163	129	134	139	142	56	73	6	23
Means corrected for Temperature.	51·1		41·7		80·2		112·1		81·0		110·3		123·8		127·0		104·5		114·8		62·3		30·0	

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

1902.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight.	67°·1	66°·4	67°·2	67°·4	67°·5	68°·0	68°·0	67°·5	68°·0	67°·6	67°·4	67°·3	67°·45
1h	66·9	66·2	67·0	67·4	67·5	68·0	68·0	67·5	67·9	67·6	67·3	67·2	67·37
2	66·7	66·1	66·9	67·3	67·5	67·9	68·0	67·5	67·9	67·6	67·3	67·1	67·32
3	66·5	65·9	66·7	67·2	67·4	67·9	67·9	67·4	67·9	67·5	67·2	67·0	67·21
4	66·4	65·8	66·5	67·1	67·3	67·9	67·9	67·4	67·9	67·5	67·1	66·9	67·14
5	66·3	65·7	66·3	67·0	67·3	67·8	67·8	67·3	67·8	67·5	67·0	66·8	67·05
6	66·2	65·6	66·2	66·9	67·2	67·7	67·8	67·3	67·8	67·4	67·0	66·8	66·99
7	66·2	65·5	66·1	66·9	67·1	67·7	67·7	67·2	67·7	67·4	67·0	66·7	66·93
8	66·2	65·5	66·1	66·8	67·1	67·6	67·7	67·2	67·7	67·4	67·0	66·7	66·92
9	66·2	65·4	66·0	66·8	67·0	67·6	67·6	67·1	67·6	67·4	67·0	66·7	66·87
10	66·2	65·3	65·9	66·8	66·9	67·5	67·6	67·1	67·6	67·3	66·9	66·6	66·81
11	66·3	65·2	65·9	66·8	66·9	67·5	67·7	67·2	67·5	67·2	66·7	66·6	66·79
Noon.	66·3	65·2	65·8	66·8	66·8	67·5	67·7	67·2	67·5	67·2	66·6	66·5	66·76
13h	66·4	65·2	65·9	66·7	66·9	67·5	67·7	67·2	67·6	67·2	66·7	66·6	66·80
14	66·5	65·3	66·0	66·8	67·1	67·7	67·8	67·3	67·7	67·2	66·7	66·6	66·89
15	66·6	65·4	66·2	66·9	67·3	67·7	67·9	67·3	67·7	67·2	66·8	66·6	66·97
16	66·7	65·6	66·3	67·0	67·4	67·8	67·9	67·3	67·8	67·3	66·9	66·7	67·06
17	67·1	65·7	66·5	67·0	67·5	67·9	68·0	67·4	67·8	67·4	67·1	66·9	67·19
18	67·2	66·0	66·6	67·0	67·5	67·9	68·0	67·4	67·8	67·4	67·3	67·0	67·26
19	67·2	66·2	66·8	67·0	67·5	67·9	68·0	67·4	67·8	67·4	67·3	67·2	67·31
20	67·2	66·3	67·0	67·0	67·4	67·9	68·0	67·5	67·8	67·4	67·4	67·2	67·34
21	67·2	66·4	67·2	67·0	67·4	67·9	68·0	67·5	67·8	67·4	67·4	67·3	67·38
22	67·2	66·5	67·3	67·1	67·4	67·9	68·0	67·5	67·8	67·4	67·4	67·3	67·40
23	67·2	66·4	67·3	67·3	67·5	68·0	68·0	67·5	67·8	67·4	67·4	67·3	67·42

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.)*

1902.

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	241	493	144	406	155	421	202	435	193	453	270	492	339	582	242	531	304	558	211	450	173	420	078	344
2	247	513	129	389	158	416	202	443	182	438	265	521	314	591	235	508	329	576	218	461	188	419	085	351
3	249	494	140	390	186	436	182	450	188	435	252	518	323	566	253	528	337	574	184	465	183	409	092	358
4	240	515	140	404	216	472	162	441	180	440	297	532	313	556	260	520	339	584	177	433	154	404	067	354
5	222	495	121	398	192	442	182	427	170	453	276	532	344	558	280	519	335	595	182	425	183	395	069	327
6	241	493	117	394	176	434	180	446	102	398	203	467	355	573	282	527	316	584	178	432	170	394	072	315
7	255	492	130	405	169	427	161	432	138	406	211	479	369	583	284	542	323	573	183	435	160	407	045	303
8	229	493	135	408	192	437	147	403	128	399	236	494	377	589	302	547	320	563	178	421	158	401	035	293
9	210	476	128	394	208	451	143	407	143	409	188	442	378	594	289	553	295	553	188	431	161	402	013	281
10	231	468	123	402	205	463	120	393	156	414	193	461	350	610	284	552	297	549	192	421	185	397	014	261
11	220	478	112	406	203	461	131	391	180	434	220	459	319	592	241	533	300	558	198	445	144	398	002	268
12	214	476	131	408	200	460	153	405	203	438	218	470	339	578	253	524	290	577	191	445	145	384	005	255
13	207	475	128	428	210	466	172	401	152	425	183	460	318	580	248	516	275	562	215	441	132	398	014	253
14	188	442	114	412	229	468	174	419	134	411	194	469	313	560	275	512	271	535	228	454	120	384	023	268
15	197	438	105	382	212	474	172	401	136	404	202	462	330	565	275	520	283	522	190	461	121	387	023	291
16	191	432	083	377	204	460	188	463	141	395	237	472	338	567	261	527	257	530	190	446	112	380	030	280
17	194	439	095	372	226	471	224	474	141	401	213	463	336	581	303	532	267	523	202	443	106	372	078	311
18	200	447	110	376	208	468	220	482	138	409	215	465	314	564	298	545	240	519	195	445	092	365	042	310
19	173	444	112	383	192	460	206	456	149	422	222	469	308	553	305	555	216	499	151	432	081	360	036	286
20	176	442	116	378	177	448	242	485	139	416	245	501	293	547	296	571	237	484	165	417	067	344	047	286
21	203	429	145	376	172	440	239	491	167	414	253	509	293	536	315	569	231	491	163	448	044	336	033	299
22	194	452	147	390	170	436	284	521	139	416	269	512	262	526	292	567	224	488	152	420	029	327	043	288
23	223	456	177	391	155	434	283	524	163	423	308	515	254	514	299	567	215	483	172	409	052	320	053	317
24	237	482	192	416	160	428	246	521	185	426	294	531	263	508	305	567	250	497	164	409	085	347	036	315
25	193	485	170	407	150	437	250	516	188	454	307	542	258	524	313	579	251	505	158	391	103	340	022	303
26	167	440	151	419	129	429	205	488	183	458	303	555	282	523	317	567	224	499	157	409	089	353	034	281
27	193	426	142	415	144	421	237	489	183	462	309	563	285	551	297	570	225	479	158	410	088	346	050	293
28	179	435	163	415	188	440	219	483	202	456	320	567	257	544	295	555	222	480	153	413	105	346	033	293
29	147	432			194	448	198	454	231	468	332	565	268	539	321	554	216	478	168	409	092	348	007	290
30	133	395			160	441	208	449	248	479	339	580	277	537	322	569	217	460	165	404	073	348	997	265
31	142	394			165	429			253	500			273	533	310	578			175	422			990	240

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.

1902.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	67°·3	66°·8	66°·6	68°·2	66°·9	68°·7	67°·7	65°·5	67°·2	67°·9	67°·5	66°·6
2	66·6	66·9	67·0	67·8	67·1	67·1	66·1	66·3	67·5	67·7	68·3	66·6
3	67·6	67·4	67·4	66·5	67·5	66·6	67·7	66·2	68·0	65·9	68·5	66·6
4	66·2	66·7	67·1	66·0	66·9	68·1	67·7	66·9	67·6	67·1	67·4	65·6
5	66·3	66·1	67·4	67·6	65·8	67·1	69·1	67·9	66·9	67·7	69·2	67·0
6	67·3	66·1	67·0	66·6	65·2	66·7	68·9	67·6	66·5	67·2	68·6	67·7
7	68·0	66·2	67·0	66·4	66·5	66·5	69·1	67·0	67·4	67·3	67·5	67·0
8	66·7	66·3	67·6	67·1	66·4	67·0	69·2	67·6	67·7	67·7	67·7	67·0
9	66·6	66·6	67·7	66·7	66·6	67·2	69·0	66·7	67·0	67·7	67·8	66·5
10	68·0	66·0	67·0	66·3	67·0	66·5	66·9	66·5	67·3	68·4	69·2	67·5
11	67·0	65·3	67·0	66·9	67·2	67·9	66·3	65·4	67·0	67·5	67·2	66·6
12	66·8	66·1	66·9	67·3	68·1	67·3	67·9	66·4	65·6	67·2	67·9	67·4
13	66·5	65·0	67·1	68·4	66·3	66·1	66·8	66·5	65·6	68·5	66·6	67·9
14	67·2	65·1	67·9	67·6	66·1	66·2	67·5	68·0	66·7	68·5	66·7	67·6
15	67·8	66·1	66·8	68·4	66·5	66·9	68·1	67·6	67·9	66·4	66·6	66·5
16	67·8	65·3	67·1	66·2	67·2	68·1	68·4	66·6	66·3	67·1	66·5	67·4
17	67·6	66·1	67·6	67·4	66·9	67·4	67·6	68·4	67·1	67·8	66·6	68·2
18	67·5	66·6	66·9	66·8	66·4	67·4	67·4	67·5	66·0	67·4	66·3	66·5
19	66·4	66·4	66·5	67·4	66·3	67·5	67·6	67·4	65·8	65·9	66·0	67·4
20	66·6	66·8	66·4	67·7	66·1	67·1	67·2	66·2	67·5	67·3	66·1	67·9
21	68·5	68·3	66·5	67·3	67·5	67·1	67·7	67·2	66·9	65·7	65·4	66·6
22	67·0	67·7	66·6	68·0	66·1	67·7	66·7	66·2	66·7	66·5	65·1	67·6
23	68·2	69·1	66·0	67·8	66·9	69·4	66·9	66·5	66·5	68·0	66·5	66·7
24	67·6	68·6	66·5	66·2	67·8	68·0	67·6	66·8	67·5	67·6	66·8	66·0
25	65·4	68·0	65·6	66·6	66·6	68·1	66·6	66·6	67·2	68·2	68·0	65·9
26	66·3	66·5	65·0	65·8	66·2	67·3	67·8	67·4	66·2	67·3	66·7	67·5
27	68·2	66·3	66·1	67·3	66·0	67·2	66·6	66·3	67·2	67·3	67·0	67·7
28	67·1	67·3	67·3	66·7	67·2	67·5	65·6	66·9	67·0	66·9	67·8	66·9
29	65·7		67·2	67·1	68·0	68·2	66·4	68·2	66·8	67·8	67·1	65·8
30	66·8		65·9	67·8	68·3	67·8	66·9	67·5	67·7	67·9	66·2	66·5
31	67·3		66·7		67·5		66·9	66·5		67·5		67·4
Means	67°·09	66°·63	66°·82	67°·13	66°·81	67°·39	67°·48	66°·91	66°·94	67°·38	67°·16	66°·97

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.)*

1902.

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

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

1902.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight.	67°·5	67°·2	67°·6	67°·5	67°·0	67°·6	67°·6	67°·1	67°·1	67°·6	67°·4	67°·3	67°·38
1h	67·3	67·1	67·4	67·5	67·0	67·6	67·6	67·0	67·1	67·6	67·4	67·3	67·32
2	67·1	66·9	67·2	67·4	67·0	67·5	67·6	67·0	67·1	67·6	67·3	67·2	67·24
3	66·9	66·7	67·0	67·2	66·9	67·5	67·5	66·9	67·0	67·6	67·2	67·1	67·13
4	66·8	66·5	66·7	67·1	66·8	67·4	67·4	66·9	67·0	67·5	67·2	67·0	67·02
5	66·7	66·4	66·5	67·0	66·7	67·3	67·4	66·8	66·9	67·5	67·1	66·8	66·93
6	66·6	66·3	66·3	66·9	66·6	67·2	67·3	66·8	66·9	67·4	67·0	66·7	66·83
7	66·5	66·2	66·2	66·8	66·5	67·1	67·2	66·7	66·8	67·4	67·0	66·7	66·76
8	66·5	66·1	66·2	66·7	66·5	67·1	67·2	66·6	66·8	67·4	67·0	66·7	66·73
9	66·5	66·1	66·1	66·6	66·4	67·0	67·1	66·6	66·7	67·4	67·0	66·6	66·67
10	66·6	66·1	66·1	66·7	66·4	67·0	67·2	66·7	66·7	67·3	66·9	66·6	66·69
11	66·7	66·1	66·1	66·8	66·4	67·2	67·3	66·8	66·7	67·2	66·8	66·6	66·73
Noon.	66·7	66·2	66·2	67·0	66·5	67·3	67·4	66·9	66·8	67·1	66·8	66·6	66·79
13h	66·9	66·3	66·3	67·1	66·7	67·3	67·5	66·9	66·8	67·1	66·8	66·7	66·87
14	66·9	66·3	66·5	67·1	66·8	67·4	67·6	67·0	66·9	67·2	66·9	66·7	66·94
15	67·0	66·4	66·6	67·2	67·0	67·5	67·6	67·0	67·0	67·3	67·0	66·8	67·03
16	67·2	66·5	66·8	67·2	67·1	67·5	67·7	67·0	67·1	67·3	67·1	66·9	67·12
17	67·5	66·6	66·9	67·3	67·1	67·6	67·7	67·0	67·1	67·4	67·3	67·1	67·22
18	67·7	66·9	67·1	67·3	67·1	67·6	67·7	67·0	67·1	67·4	67·4	67·2	67·29
19	67·7	67·1	67·3	67·3	67·1	67·5	67·7	67·0	67·0	67·4	67·5	67·3	67·32
20	67·7	67·3	67·5	67·3	67·0	67·5	67·6	67·0	67·0	67·4	67·4	67·3	67·33
21	67·7	67·4	67·7	67·3	66·9	67·5	67·6	67·1	67·0	67·4	67·4	67·4	67·37
22	67·7	67·3	67·7	67·4	67·0	67·6	67·6	67·1	66·9	67·4	67·4	67·4	67·38
23	67·7	67·3	67·7	67·5	67·0	67·6	67·6	67·0	67·0	67·5	67·4	67·4	67·39

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, 1902.	DECLINATION WEST in Arc.	HORIZONTAL FORCE in terms of the whole Horizontal Force (diminished by a Constant).	VERTICAL FORCE in terms of the whole Vertical Force (diminished by a Constant).	DECLINATION diminished by 16° and expressed as Westerly Force	HORIZONTAL FORCE (diminished by a Constant)	VERTICAL FORCE (diminished by a Constant)
				in terms of GAUSS'S METRICAL UNIT.		
January	16° 25'·6	0	460	1378	0	2011
February	16. 25·4	7	398	1367	13	1740
March	16. 24·7	124	446	1330	229	1950
April	16. 23·3	109	453	1254	202	1980
May	16. 22·5	171	431	1211	316	1884
June	16. 22·7	288	502	1222	533	2195
July	16. 22·5	265	559	1211	490	2444
August	16. 23·6	323	545	1270	598	2383
September	16. 20·8	259	529	1120	479	2313
October	16. 21·4	169	431	1152	313	1884
November	16. 21·5	163	375	1157	302	1639
December	16. 20·0	157	296	1077	291	1294
Means	16. 22·8	.....	.....	1229	.....	.....
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 1·8505 and 0·18505 respectively for the year, and of whole Vertical Force (applicable to column 6) are 4·3716 and 0·43716 respectively for the year.

HORIZONTAL FORCE.—At the end of the year experiments were made for determination of the angle of torsion, thus breaking the continuity of the values.
VERTICAL FORCE.—At the end of the year the magnet was readjusted, thus breaking the continuity of the values.

TABLE XII.—MEAN DIURNAL INEQUALITIES OF MAGNETIC DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE, for the YEAR 1902.

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

Hour, Greenwich Civil Time.	Inequality of			Inequality of		
	DECLINATION WEST in Arc.	HORIZONTAL FORCE in terms of the whole Horizontal Force.	VERTICAL FORCE in terms of the whole Vertical Force.	DECLINATION expressed as WESTERLY FORCE	HORIZONTAL FORCE	VERTICAL FORCE
				in terms of GAUSS'S METRICAL UNIT.		
Midnight.	1·38	108·3	25·2	74·3	200·4	110·2
1h	1·52	104·8	23·9	81·8	193·9	104·5
2	1·55	102·8	23·0	83·4	190·2	100·5
3	1·55	101·4	23·9	83·4	187·6	104·5
4	1·40	103·4	25·3	75·4	191·3	110·6
5	1·01	103·3	27·4	54·4	191·2	119·8
6	0·60	95·8	27·4	32·3	177·3	119·8
7	0·25	79·6	28·3	13·5	147·3	123·7
8	0·00	53·4	26·4	0·0	98·8	115·4
9	0·46	20·4	19·1	24·8	37·8	83·5
10	1·94	0·0	9·5	104·4	0·0	41·5
11	3·87	5·0	1·9	208·3	9·3	8·3
Noon.	5·38	27·9	0·0	289·6	51·6	0·0
13h	6·03	55·4	8·0	324·6	102·5	35·0
14	5·42	79·4	19·5	291·8	146·9	85·2
15	4·30	91·9	26·3	231·5	170·1	115·0
16	3·25	97·0	29·5	174·9	179·5	129·0
17	2·52	104·1	30·4	135·6	192·6	132·9
18	2·13	112·4	29·6	114·7	208·0	129·4
19	1·91	120·2	27·9	102·8	222·4	122·0
20	1·69	120·5	26·3	91·0	223·0	115·0
21	1·40	115·6	24·2	75·4	213·9	105·8
22	1·31	110·9	24·0	70·5	205·2	104·9
23	1·30	109·1	23·3	70·0	201·9	101·9
Means . . .	2·17	84·3	22·1	117·0	155·9	96·6
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 whole Horizontal Force (applicable to columns 4 and 5) are 1·8505 and 0·18505 respectively, and of whole Vertical Force (applicable to column 6) are 4·3716 and 0·43716 respectively.

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

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

1902.

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	4·1	102	3·5	104	3·9	94	9·8	157	4·3	135	8·3	150	5·1	185	9·6	180	5·8	189	10·3	133	10·7	171	5·1	114
2	2·8	78	3·7	119	6·4	85	9·5	143	5·2	156	6·4	150	5·9	192	12·3	198	9·4	180	7·7	192	4·0	88	4·5	115
3	4·0	132	3·8	110	4·1	80	10·5	165	5·0	182	8·3	199	9·9	147	8·1	168	8·6	167	6·8	151	4·8	150	3·6	80
4	2·1	67	3·9	119	4·9	63	9·4	144	7·6	12	...	184	7·3	259	11·2	177	8·2	205	8·2	213	4·6	155	2·8	69
5	2·7	55	3·9	128	5·2	154	8·7	187	9·6	159	...	117	9·4	242	11·3	248	8·8	172	8·6	212	4·1	196	3·5	65
6	3·0	41	4·3	84	6·1	177	11·2	186	8·5	124	...	201	9·0	237	12·1	267	6·6	117	9·4	227	4·7	103	4·0	100
7	2·9	73	12·3	196	4·1	51	11·0	272	10·4	149	12·0	174	9·2	222	10·4	97	5·5	208	7·2	168	3·2	113	3·4	10
8	3·5	93	6·0	182	6·4	135	10·7	239	9·8	252	8·1	192	10·3	307	9·2	268	6·9	202	8·8	192	3·0	73	2·0	64
9	4·1	113	6·8	215	4·7	48	9·0	225	16·8	202	8·2	203	7·0	227	10·8	287	6·7	219	8·8	166	2·4	107	2·5	150
10	3·6	107	4·3	130	6·0	140	13·0	262	12·9	162	7·5	253	9·1	248	8·1	181	7·4	147	6·6	190	5·4	131	3·2	72
11	2·6	80	7·5	85	9·0	219	22·0	672	6·9	168	9·8	156	6·8	258	9·2	197	8·2	127	12·3	232	4·6	124	3·0	79
12	3·9	108	7·4	125	9·3	174	5·4	192	4·2	124	8·5	161	12·0	349	9·4	201	7·2	137	7·2	164	5·5	152	2·7	73
13	3·2	122	4·5	115	7·4	179	9·0	153	4·7	184	4·6	103	8·5	244	9·3	142	8·3	185	8·2	195	6·0	174	3·6	118
14	4·4	98	4·5	134	6·7	173	8·1	200	6·9	98	8·1	110	10·6	192	8·8	184	5·5	162	7·2	200	3·5	85	2·5	78
15	15·1	347	3·5	65	7·1	188	7·2	125	4·2	129	10·9	139	6·8	142	10·4	225	8·7	189	7·8	247	4·3	75	2·9	93
16	17·6	229	6·7	170	6·2	116	6·4	97	4·2	103	7·0	175	7·0	207	12·3	209	6·4	170	7·0	178	3·1	110	2·6	110
17	7·5	137	5·0	31	7·1	173	5·8	166	7·0	130	7·0	199	6·1	160	11·9	315	7·9	193	6·5	190	3·4	108	2·1	57
18	3·2	60	3·3	97	5·8	119	7·1	191	10·3	176	10·3	266	5·6	194	11·6	172	10·0	155	6·8	152	4·5	122	1·8	63
19	3·1	107	2·6	81	8·4	109	6·7	180	7·3	196	8·8	246	8·5	85	11·3	210	9·6	241	6·3	190	3·7	135	2·6	86
20	3·9	80	7·6	69	9·0	98	12·1	206	8·2	141	10·2	153	9·7	123	9·9	293	8·4	304	7·8	200	2·3	53	2·3	65
21	4·1	162	6·8	125	10·9	182	9·4	196	9·5	188	10·0	199	9·7	212	21·0	295	7·5	228	6·9	185	7·3	103	2·8	64
22	5·3	99	4·2	24	7·4	96	8·2	155	7·7	191	11·3	295	9·3	225	15·1	311	7·2	286	6·9	197	6·3	119	6·2	162
23	4·9	112	3·2	12	7·0	139	6·7	157	11·0	209	10·0	313	9·8	247	9·3	285	8·6	211	7·4	345	13·1	189	7·4	217
24	7·0	190	6·1	47	12·5	228	6·2	137	7·4	164	...	339	11·6	331	13·0	227	6·6	170	10·0	301	17·0	257	4·2	129
25	4·6	98	5·4	165	11·5	241	7·0	146	7·8	116	9·5	237	12·9	260	9·8	222	5·3	154	11·9	144	9·8	145	2·3	75
26	5·7	186	4·3	81	7·9	143	7·8	114	9·3	185	11·3	265	9·8	218	6·9	123	6·2	151	7·6	147	3·3	136	4·3	105
27	3·5	112	3·2	141	9·0	217	6·1	155	8·2	248	10 8	328	7·9	151	5·1	267	4·1	125	6·3	154	3·3	39	2·9	65
28	3·6	95	3·8	117	10·4	150	7·6	160	9·4	193	9·0	294	7·6	227	5·6	211	4·8	108	6·3	236	5·0	138	3·5	90
29	3·1	137			9·6	158	6·9	212	9·8	233	12·0	312	7·0	262	7·2	129	9·4	147	7·5	148	3·6	85	3·3	83
30	4·9	136			8·8	106	8·6	143	6·6	235	...	247	8·8	268	7·6	164	9·4	180	6·7	228	3·0	95	2·3	19
31	3·6	161			8·9	158			9·1	259			8·0	220	8·8	255			12·6	484			2·4	...
Means	4·8	120	5·1	110	7·5	142	8·9	191	8·1	168	9·1	212	8·6	221	10·2	216	7·4	181	8·1	205	5·3	124	3·3	89

The mean of the twelve monthly values is, for Declination 7′·20, and for Horizontal Force 164·9.

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, 1902.	Difference between the Greatest and Least of the 24 Hourly Values.			Sums of the 24 Hourly Deviations from the Mean Value.		
	Declination.	Horizontal Force.	Vertical Force.	Declination.	Horizontal Force.	Vertical Force.
	′			′		
January	3·6	81	16	18·3	370	62
February	4·0	64	12	20·4	353	68
March	6·9	115	36	30·4	695	157
April	7·6	157	57	38·8	913	285
May	7·1	136	53	37·5	929	277
June	8·3	187	60	43·3	1120	311
July	7·8	194	46	40·6	1124	249
August	9·5	193	51	46·3	1071	217
September	6·8	145	35	36·0	845	190
October	6·9	157	34	35·1	969	150
November	3·9	92	16	20·6	485	79
December	2·6	62	12	12·9	281	55
Means	6′·25	131·9	35·7	31′·68	763	175

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, 1902.	m	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4
	DECLINATION WEST.								
January	1′·15	− 0′·90	− 0′·36	+ 0′·11	+ 0′·78	− 0′·42	− 0′·22	+ 0′·19	+ 0′·12
February	1·46	− 1·12	− 0·31	+ 0·47	+ 0·65	− 0·45	− 0·08	+ 0·19	+ 0·24
March	2·55	− 1·25	− 0·92	+ 1·15	+ 1·03	− 0·83	− 0·42	+ 0·39	+ 0·24
April	2·75	− 1·53	− 1·28	+ 1·12	+ 1·31	− 0·69	− 0·66	+ 0·35	+ 0·22
May	3·00	− 1·34	− 1·68	+ 1·29	+ 1·12	− 0·56	− 0·25	+ 0·10	+ 0·04
June	3·79	− 1·39	− 2·10	+ 1·63	+ 1·28	− 0·65	− 0·28	+ 0·05	− 0·01
July	3·56	− 1·21	− 2·09	+ 1·42	+ 1·12	− 0·68	− 0·30	+ 0·02	+ 0·09
August	3·34	− 2·01	− 1·51	+ 1·93	+ 1·24	− 0·97	− 0·45	+ 0·18	+ 0·28
September	2·35	− 1·70	− 1·00	+ 1·32	+ 0·93	− 0·75	− 0·21	+ 0·34	+ 0·04
October	2·45	− 1·62	− 0·97	+ 0·92	+ 1·15	− 0·88	− 0·43	+ 0·50	+ 0·21
November	1·35	− 1·24	− 0·19	+ 0·38	+ 0·58	− 0·51	− 0·10	+ 0·25	+ 0·04
December	0·99	− 0·75	+ 0·02	+ 0·31	+ 0·45	− 0·25	− 0·04	+ 0·16	+ 0·02
For the Year	2·17	− 1·34	− 1·03	+ 1·00	+ 0·97	− 0·64	− 0·29	+ 0·23	+ 0·13
	HORIZONTAL FORCE.								
January	51·1	+ 15·9	+ 2·3	− 21·8	+ 4·4	+ 6·5	− 7·9	0·0	+ 5·0
February	41·7	+ 18·8	+ 4·2	− 14·2	+ 2·6	+ 7·5	− 6·3	− 0·5	+ 4·3
March	80·2	+ 42·2	− 8·6	− 17·4	+ 9·7	+ 2·3	− 14·2	+ 1·5	+ 6·1
April	112·1	+ 52·6	− 23·3	− 23·6	+ 13·9	+ 9·7	− 15·0	+ 3·3	+ 8·2
May	81·0	+ 43·8	− 40·0	− 17·9	+ 14·0	+ 1·3	− 4·6	+ 1·5	− 1·7
June	110·3	+ 54·0	− 49·0	− 20·8	+ 16·3	− 5·9	− 8·6	+ 4·3	+ 3·4
July	123·8	+ 50·8	− 46·4	− 24·0	+ 25·4	− 4·0	− 14·1	− 1·2	+ 6·3
August	127·0	+ 50·6	− 44·8	− 15·0	+ 27·2	− 8·0	− 19·1	+ 2·1	+ 10·2
September	104·5	+ 46·9	− 24·7	− 10·3	+ 23·2	− 4·9	− 16·1	+ 4·4	+ 7·8
October	114·8	+ 56·0	− 7·2	− 28·9	+ 20·3	+ 4·6	− 16·6	+ 4·7	+ 8·9
November	62·3	+ 26·1	+ 1·0	− 19·7	+ 6·2	+ 2·3	− 11·1	+ 0·6	+ 6·9
December	30·0	+ 8·6	+ 8·8	− 14·1	+ 5·5	+ 1·9	− 7·2	+ 1·5	+ 6·7
For the Year	84·3	+ 38·8	− 19·0	− 19·0	+ 14·1	+ 1·1	− 11·7	+ 1·8	+ 6·0
	VERTICAL FORCE.								
January	5·5	− 1·7	+ 0·8	− 0·5	+ 3·0	+ 1·9	− 1·5	− 1·2	+ 1·3
February	5·8	− 1·5	− 1·4	− 2·8	+ 0·3	+ 1·7	− 1·3	− 0·4	− 0·1
March	21·8	+ 3·4	+ 3·1	− 8·7	+ 2·2	+ 6·3	− 2·7	− 2·5	+ 1·4
April	42·0	+ 14·6	− 2·4	− 13·6	+ 0·6	+ 7·7	− 0·3	− 3·2	0·0
May	36·6	+ 14·6	− 2·0	− 13·3	+ 2·0	+ 5·3	− 1·0	− 0·4	+ 1·3
June	40·2	+ 15·1	− 5·3	− 15·7	+ 1·4	+ 6·0	− 1·4	− 0·7	+ 1·2
July	35·6	+ 12·8	− 0·7	− 12·0	+ 0·8	+ 6·8	− 1·5	− 1·7	+ 0·3
August	34·3	+ 8·3	− 2·9	− 12·4	+ 2·2	+ 7·2	− 0·6	− 2·5	0·0
September	26·5	+ 9·3	− 0·1	− 8·3	+ 1·9	+ 4·7	− 1·6	− 1·7	+ 1·5
October	20·5	+ 4·2	− 5·9	− 7·1	+ 1·8	+ 4·9	− 2·0	− 2·7	+ 2·0
November	6·6	− 0·9	− 3·2	− 1·4	+ 2·7	+ 2·7	− 1·5	− 0·7	+ 0·9
December	5·3	− 2·7	− 0·4	− 0·8	+ 1·7	+ 1·3	− 0·8	+ 0·3	+ 0·7
For the Year	22·1	+ 6·3	− 1·7	− 8·1	+ 1·7	+ 4·7	− 1·3	− 1·5	+ 0·9

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, 1902.	m	c_1	α	α'	c_2	β	β'	c_3	γ	γ'	c_4	δ	δ'
	DECLINATION WEST.												
January	1′·15	0′·97	248° 28′	250° 47′	0′·79	8° 18′	12° 56′	0′·48	242° 25′	249° 22′	0′·22	58° 51′	68° 7′
February	1·46	1·16	254. 35	258. 5	0·80	36. 5	43. 5	0·46	259. 39	270. 9	0·31	38. 2	52. 2
March	2·55	1·55	233. 40	235. 53	1·54	48. 0	52. 26	0·94	243. 12	249. 51	0·46	58. 24	67. 16
April	2·75	2·00	230. 12	230. 17	1·73	40. 33	40. 43	0·96	226. 29	226. 44	0·41	57. 9	57. 29
May	3·00	2·14	218. 33	217. 41	1·71	49. 5	47. 21	0·62	245. 58	243. 22	0·10	69. 30	66. 2
June	3·79	2·52	213. 26	213. 29	2·08	51. 54	52. 0	0·71	246. 51	247. 0	0·05	97. 53	98. 5
July	3·56	2·41	210. 0	211. 21	1·81	51. 38	54. 20	0·74	246. 5	250. 8	0·09	10. 53	16. 17
August	3·34	2·52	233. 0	233. 59	2·29	57. 15	59. 13	1·07	244. 51	247. 48	0·33	32. 28	36. 24
September	2·35	1·97	239. 28	238. 17	1·62	54. 47	52. 25	0·78	254. 1	250. 28	0·34	83. 56	79. 12
October	2·45	1·89	239. 9	235. 41	1·47	38. 43	31. 47	0·98	244. 4	233. 40	0·55	67. 28	53. 36
November	1·35	1·26	261. 7	257. 25	0·69	33. 20	25. 56	0·52	258. 52	247. 46	0·26	81. 59	67. 11
December	0·99	0·76	271. 24	270. 17	0·55	34. 57	32. 43	0·25	261. 33	258. 12	0·16	82. 24	77. 56
For the Year	2·17	1·69	232. 21	232. 21	1·40	45. 59	45. 59	0·70	245. 48	245. 48	0·26	60. 28	60. 28
	HORIZONTAL FORCE.												
January	51·1	16·1	81° 50′	84° 9′	22·2	281° 20′	285° 58′	10·2	140° 23′	147° 20′	5·0	0° 29′	9° 45′
February	41·7	19·3	77. 32	81. 2	14·5	280. 29	287. 29	9·8	130. 2	140. 32	4·3	352. 45	6. 45
March	80·2	43·1	101. 30	103. 43	19·9	299. 11	303. 37	14·4	170. 44	177. 23	6·2	13. 54	22. 46
April	112·1	57·5	113. 54	113. 59	27·4	300. 30	300. 40	17·9	147. 6	147. 21	8·8	21. 58	22. 18
May	81·0	59·3	132. 26	131. 34	22·8	308. 3	306. 19	4·8	164. 43	162. 7	2·3	137. 5	133. 37
June	110·3	72·9	132. 14	132. 17	26·4	307. 59	308. 5	10·4	214. 17	214. 26	5·5	51. 41	51. 53
July	123·8	68·8	132. 25	133. 46	35·0	316. 35	319. 17	14·7	195. 52	199. 55	6·5	349. 35	354. 59
August	127·0	67·6	131. 31	132. 30	31·1	331. 10	333. 8	20·8	202. 42	205. 39	10·5	11. 29	15. 25
September	104·5	53·0	117. 49	116. 38	25·4	336. 6	333. 44	16·8	197. 1	193. 28	9·0	29. 33	24. 49
October	114·8	56·4	97. 20	93. 52	35·3	305. 6	298. 10	17·2	164. 31	154. 7	10·0	27. 57	14. 5
November	62·3	26·1	87. 53	84. 11	20·6	287. 25	280. 1	11·3	168. 18	157. 12	6·9	4. 49	350. 1
December	30·0	12·3	44. 6	42. 59	15·2	291. 20	289. 6	7·5	165. 14	161. 53	6·9	12. 16	7. 48
For the Year	84·3	43·2	116. 2	116. 2	23·6	306. 34	306. 34	11·8	174. 37	174. 37	6·3	17. 4	17. 4
	VERTICAL FORCE.												
January	5·5	1·8	293° 44′	296° 3′	3·0	349° 32′	354° 10′	2·4	129° 24′	136° 21′	1·7	318° 6′	327° 22′
February	5·8	2·0	226. 39	230. 9	2·8	276. 56	283. 56	2·1	128. 16	138. 46	0·4	251. 13	265. 13
March	21·8	4·7	47. 24	49. 37	9·0	283. 57	288. 23	6·9	113. 29	120. 8	2·9	298. 25	307. 17
April	42·0	14·8	99. 21	99. 26	13·6	272. 23	272. 33	7·7	92. 3	92. 18	3·2	270. 0	270. 20
May	36·6	14·7	97. 55	97. 3	13·5	278. 42	276. 58	5·3	100. 51	98. 15	1·4	342. 14	338. 46
June	40·2	16·0	109. 17	109. 20	15·7	275. 13	275. 19	6·1	102. 46	102. 55	1·4	329. 58	330. 10
July	35·6	12·8	93. 7	94. 28	12·0	273. 54	276. 36	7·0	102. 21	106. 24	1·8	279. 28	284. 52
August	34·3	8·8	109. 33	110. 32	12·6	279. 52	281. 50	7·3	94. 24	97. 21	2·5	270. 0	273. 56
September	26·5	9·3	90. 49	89. 38	8·6	283. 9	280. 47	5·0	109. 2	105. 29	2·3	311. 36	306. 52
October	20·5	7·2	144. 24	140. 56	7·3	284. 10	277. 14	5·3	112. 16	101. 52	3·4	306. 15	292. 23
November	6·6	3·4	195. 37	191. 55	3·0	332. 1	324. 37	3·1	119. 18	108. 12	1·1	319. 8	304. 20
December	5·3	2·8	261. 3	259. 56	1·9	335. 44	333. 30	1·5	120. 35	117. 14	0·8	24. 41	20. 13
For the Year	22·1	6·5	105. 8	105. 8	8·2	282. 3	282. 3	4·9	105. 59	105. 59	1·7	300. 42	300. 42

TABLE XVII.—RESULTS of OBSERVATIONS of MAGNETIC DIP made in the MAGNETIC PAVILION in the YEAR 1902.

Greenwich Civil Time, 1902.	3-inch Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1902.	3-inch Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1902.	3-inch Needle.	Magnetic Dip.	Observer.
d h		° ′ ″		d h		° ′ ″		d h		° ′ ″	
Jan. 3. 15	D_1	67. 5. 5	E	May 7. 15	D_1	67. 4. 12	E	Sept. 3. 16	D_1	67. 2. 31	N
12. 11	D_2	67. 4. 44	E	12. 15	D_2	67. 3. 41	E	6. 13	D_2	67. 2. 15	N
15. 11	D_1	67. 5. 30	E	13. 12	D_1	67. 3. 34	E	8. 15	D_1	67. 3. 10	N
15. 11	D_2	67. 5. 32	E	13. 12	D_2	67. 3. 34	E	8. 16	D_2	67. 2. 50	N
16. 15	D_1	67. 5. 30	E	14. 15	D_1	67. 3. 7	E	16. 13	D_1	67. 2. 11	N
16. 15	D_2	67. 4. 46	E	21. 12	D_2	67. 3. 59	E	16. 14	D_2	67. 1. 43	N
21. 14	D_1	67. 4. 40	N	21. 13	D_1	67. 4. 7	E	19. 13	D_1	67. 2. 26	E
21. 16	D_2	67. 4. 26	N	27. 16	D_2	67. 2. 46	N	19. 15	D_2	67. 2. 48	E
25. 13	D_2	67. 5. 16	N	28. 14	D_1	67. 4. 11	N	23. 12	D_1	67. 2. 46	E
27. 15	D_1	67. 5. 5	N					23. 12	D_2	67. 2. 20	E
27. 16	D_2	67. 4. 45	N					30. 12	D_1	67. 2. 14	E
30. 14	D_1	67. 5. 6	N					30. 13	D_2	67. 2. 1	E
				June 5. 15	D_2	67. 3. 30	E				
				10. 16	D_1	67. 3. 20	N				
				11. 15	D_2	67. 3. 40	N				
Feb. 4. 16	D_2	67. 4. 16	N	11. 16	D_1	67. 3. 47	N	Oct. 1. 14	D_2	67. 2. 19	N
4. 16	D_1	67. 4. 48	N	13. 15	D_2	67. 3. 14	N	1. 15	D_1	67. 3. 20	N
6. 16	D_2	67. 4. 48	N	13. 16	D_1	67. 3. 25	N	8. 14	D_2	67. 3. 22	N
14. 15	D_1	67. 5. 14	N	18. 12	D_2	67. 2. 53	E	8. 15	D_1	67. 3. 34	N
14. 16	D_2	67. 4. 21	N	19. 12	D_1	67. 3. 9	E	13. 14	D_2	67. 1. 25	N
17. 12	D_1	67. 4. 15	E	24. 14	D_2	67. 3. 3	N	13. 15	D_1	67. 2. 53	N
19. 12	D_2	67. 4. 20	E	25. 12	D_1	67. 2. 12	E	15. 14	D_2	67. 2. 24	N
19. 13	D_1	67. 4. 52	E	30. 12	D_2	67. 3. 43	E	20. 15	D_1	67. 2. 37	E
25. 12	D_2	67. 4. 52	E	30. 13	D_1	67. 2. 54	E	20. 15	D_2	67. 3. 26	E
27. 12	D_1	67. 4. 53	E					24. 12	D_1	67. 3. 24	E
27. 13	D_2	67. 4. 34	E					28. 12	D_2	67. 3. 47	E
28. 13	D_1	67. 4. 16	E					28. 13	D_1	67. 3. 31	E
				July 4. 16	D_2	67. 4. 5	N				
				7. 14	D_1	67. 2. 4	N				
				7. 16	D_2	67. 2. 17	N	Nov. 3. 16	D_2	67. 3. 27	N
Mar. 6. 12	D_2	67. 4. 28	E	8. 12	D_1	67. 4. 1	N	6. 16	D_1	67. 3. 37	N
10. 16	D_1	67. 3. 44	N	8. 13	D_2	67. 3. 32	N	7. 16	D_2	67. 3. 24	N
12. 12	D_2	67. 4. 41	E	12. 13	D_1	67. 2. 52	N	7. 16	D_1	67. 2. 5	N
12. 12	D_1	67. 4. 0	E	17. 12	D_2	67. 1. 46	E	14. 16	D_2	67. 2. 28	N
13. 16	D_2	67. 4. 36	N	18. 12	D_1	67. 2. 39	E	18. 12	D_1	67. 2. 12	E
19. 16	D_1	67. 5. 5	N	18. 13	D_2	67. 2. 29	E	18. 13	D_2	67. 3. 7	E
24. 15	D_2	67. 4. 28	N	28. 15	D_1	67. 2. 50	E	19. 15	D_1	67. 2. 52	N
25. 14	D_1	67. 3. 59	N	30. 12	D_2	67. 1. 48	E	21. 12	D_2	67. 1. 57	E
26. 11	D_2	67. 5. 2	N	30. 13	D_1	67. 2. 25	E	25. 12	D_1	67. 2. 24	E
26. 12	D_1	67. 4. 46	N					28. 12	D_2	67. 3. 42	E
								28. 13	D_1	67. 2. 51	E
Apr. 3. 16	D_1	67. 3. 52	N	Aug. 1. 16	D_1	67. 1. 30	N				
4. 16	D_2	67. 4. 25	N	5. 16	D_2	67. 3. 6	N	Dec. 1. 16	D_2	67. 2. 51	N
5. 11	D_1	67. 5. 11	N	7. 12	D_1	67. 2. 10	E	2. 13	D_1	67. 3. 8	N
5. 12	D_2	67. 4. 48	N	7. 13	D_2	67. 2. 22	E	8. 15	D_1	67. 3. 48	N
14. 12	D_1	67. 3. 47	E	19. 12	D_1	67. 1. 56	E	15. 13	D_2	67. 3. 2	N
14. 12	D_2	67. 4. 42	E	19. 13	D_2	67. 2. 14	E	15. 15	D_1	67. 3. 7	N
18. 12	D_1	67. 3. 54	E	20. 12	D_2	67. 2. 35	E	17. 12	D_2	67. 2. 32	E
21. 15	D_2	67. 4. 11	E	20. 13	D_1	67. 1. 52	E	17. 13	D_1	67. 2. 51	E
21. 15	D_1	67. 4. 17	E	26. 15	D_2	67. 2. 29	N	22. 12	D_2	67. 2. 1	E
24. 15	D_1	67. 3. 44	E	27. 15	D_1	67. 2. 10	N	22. 13	D_1	67. 2. 27	E
24. 15	D_2	67. 4. 12	E	27. 16	D_2	67. 1. 42	N	29. 15	D_2	67. 2. 30	E
29. 16	D_2	67. 2. 30	N	30. 12	D_1	67. 2. 22	N	29. 15	D_1	67. 2. 39	E

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

TABLE XVIII.—MONTHLY and YEARLY MEANS of MAGNETIC DIP in the YEAR 1902.

Monthly Means of Magnetic Dip.

Month 1902.	D_1, 3-inch Needle.	Number of Observations.	D_2, 3-inch Needle.	Number of Observations.
January	67° 5′ 9″	6	67° 4′ 55″	6
February	67. 4. 43	6	67. 4. 32	6
March	67. 4. 19	5	67. 4. 39	5
April	67. 4. 8	6	67. 4. 8	6
May	67. 3. 50	5	67. 3. 30	4
June	67. 3. 8	6	67. 3. 21	6
July	67. 2. 49	6	67. 2. 39	6
August	67. 2. 0	6	67. 2. 25	6
September	67. 2. 33	6	67. 2. 20	6
October	67. 3. 13	6	67. 2. 47	6
November	67. 2. 40	6	67. 3. 1	6
December	67. 3. 0	6	67. 2. 35	5
Means	67. 3. 27	Sum 70	67. 3. 24	Sum 68
Mean Annual Dip	67° 3′ 25″			

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 1902.

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, 1902.	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 20. 15	1·0	48·1	9. 43. 57	5·787	100	47·8	N
	1·3		4. 25. 5	5·786	100	49·1	
February 13. 15	1·0	40·0	9. 44. 26	5·778	100	38·7	N
	1·3		4. 25. 24	5·783	100	41·4	
February 21. 16	1·0	47·2	9. 43. 58	5·792	100	46·1	N
	1·3		4. 25. 11	5·793	100	48·2	
March 14. 15	1·0	55·7	9. 43. 9	5·788	100	55·5	N
	1·3		4. 24. 45	5·792	100	56·0	
March 25. 16	1·0	50·0	9. 44. 4	5·781	100	49·7	N
	1·3		4. 25. 2	5·785	100	51·2	
April 11. 12	1·0	46·9	9. 44. 24	5·805	100	47·1	E
	1·3		4. 25. 47	5·797	100	48·6	
April 22. 16	1·0	59·7	9. 41. 7	5·792	100	58·8	N
	1·3		4. 23. 32	5·793	100	60·3	
May 9. 16	1·0	52·6	9. 42. 5	5·792	100	51·1	N
	1·3		4. 24. 14	5·792	100	53·5	
May 22. 16	1·0	54·0	9. 41. 34	5·791	100	54·4	E
	1·3		4. 23. 59	5·792	100	54·3	
June 12. 15	1·0	56·5	9. 41. 31	5·789	100	55·8	N
	1·3		4. 24. 2	5·793	100	56·9	
June 20. 16	1·0	61·8	9. 40. 58	5·795	100	61·2	E
	1·3		4. 23. 43	5·796	100	62·7	
July 11. 16	1·0	62·5	9. 40. 40	5·792	100	62·1	N
	1·3		4. 23. 39	5·792	100	63·2	
July 23. 16	1·0	60·9	9. 39. 53	5·795	100	60·4	E
	1·3		4. 23. 26	5·792	100	63·4	
August 8. 16	1·0	64·2	9. 40. 30	5·798	100	64·9	E
	1·3		4. 23. 29	5·797	100	63·9	
August 22. 15	1·0	71·0	9. 39. 20	5·798	100	69·8	N
	1·3		4. 23. 2	5·792	100	72·1	
September 10. 16	1·0	65·3	9. 40. 15	5·798	100	64·8	N
	1·3		4. 23. 26	5·800	100	65·2	
September 25. 15	1·0	62·3	9. 40. 21	5·795	100	63·1	E
	1·3		4. 23. 40	5·797	100	64·8	
October 10. 15	1·0	64·6	9. 39. 58	5·796	100	63·9	N
	1·3		4. 23. 10	5·798	100	65·5	
October 21. 15	1·0	57·8	9. 40. 49	5·792	100	58·2	E
	1·3		4. 23. 39	5·794	100	59·1	
November 10. 15	1·0	51·6	9. 41. 24	5·788	100	50·6	N
	1·3		4. 23. 56	5·794	100	52·3	
November 25. 15	1·0	55·6	9. 42. 2	5·800	100	56·2	E
	1·3		4. 24. 17	5·799	100	57·1	
December 12. 15	1·0	44·3	9. 42. 3	5·780	100	43·8	N
	1·3		4. 24. 17	5·780	100	45·1	
December 23. 13	1·0	51·9	9. 42. 18	5·796	100	51·9	E
	1·3		4. 24. 28	5·796	100	52·3	

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

The initials N and E are those of Mr Nash 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, 1902.	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. mX.	Value of m.	Value of Horizontal Force X.	Value of Horizontal Force. As observed.	Value of Horizontal Force. Reduced to Mean of Month.
d h						s					
Jan. 20. 15	0·08470	0·08479	− 0·00265		8·92912	5·7912	0·13531	0·34058	4·0095	1·8487	1·8490
Feb. 13. 15	0·08465	0·08478	− 0·00355		8·92898	5·7888	0·13561	0·34064	4·0115	1·8496	1·8494
Feb. 21. 16	0·08469	0·08481	− 0·00344		8·92915	5·7979	0·13430	0·34020	4·0048	1·8465	1·8466
Mar. 14. 15	0·08469	0·08479	− 0·00288		8·92911	5·7916	0·13527	0·34056	4·0094	1·8487	1·8488
Mar. 25. 16	0·08474	0·08480	− 0·00169		8·92927	5·7883	0·13575	0·34081	4·0109	1·8494	1·8507
Apr. 11. 12	0·08475	0·08499	− 0·00716		8·92978	5·8071	0·13293	0·33990	3·9955	1·8423	1·8509
Apr. 22. 16	0·08446	0·08446	− 0·00011		8·92767	5·7930	0·13511	0·33993	4·0153	1·8514	1·8486
May 9. 16	0·08449	0·08458	− 0·00254		8·92807	5·7970	0·13446	0·33983	4·0105	1·8492	1·8516
May 22. 16	0·08444	0·08452	− 0·00231		8·92778	5·7944	0·13485	0·33988	4·0136	1·8506	1·8494
June 12. 15	0·08447	0·08457	− 0·00305		8·92799	5·7942	0·13489	0·33997	4·0128	1·8502	1·8515
June 20. 16	0·08447	0·08455	− 0·00243		8·92792	5·7944	0·13491	0·33995	4·0133	1·8505	1·8502
July 11. 16	0·08444	0·08454	− 0·00305	−0·00296	8·92782	5·7931	0·13511	0·33999	4·0146	1·8510	1·8510
July 23. 16	0·08430	0·08445	− 0·00423		8·92723	5·7934	0·13505	0·33973	4·0171	1·8522	1·8508
Aug. 8. 16	0·08443	0·08451	− 0·00220		8·92773	5·7962	0·13466	0·33977	4·0130	1·8503	1·8505
Aug. 22. 15	0·08437	0·08447	− 0·00282		8·92746	5·7914	0·13541	0·33997	4·0176	1·8525	1·8530
Sept. 10. 16	0·08442	0·08451	− 0·00276		8·92770	5·7975	0·13446	0·33969	4·0122	1·8500	1·8486
Sept. 25. 15	0·08439	0·08454	− 0·00457		8·92769	5·7955	0·13476	0·33980	4·0136	1·8506	1·8519
Oct. 10. 15	0·08437	0·08442	− 0·00147		8·92732	5·7950	0·13484	0·33969	4·0157	1·8516	1·8510
Oct. 21. 15	0·08439	0·08447	− 0·00243		8·92752	5·7934	0·13504	0·33984	4·0157	1·8516	1·8515
Nov. 10. 15	0·08438	0·08447	− 0·00254		8·92750	5·7947	0·13479	0·33973	4·0147	1·8511	1·8506
Nov. 25. 15	0·08453	0·08464	− 0·00316		8·92832	5·8006	0·13396	0·33973	4·0070	1·8476	1·8500
Dec. 12. 15	0·08437	0·08448	− 0·00316		8·92749	5·7860	0·13604	0·34023	4·0204	1·8537	1·8550
Dec. 23. 13	0·08451	0·08465	− 0·00384		8·92829	5·7990	0·13417	0·33981	4·0081	1·8481	1·8503
Means ...	...	...	...	...	...	...	...	...	4·0120	1·8499	1·8505

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 5, 11, 12, 22, 30, February 1, 4, 18, 22, 27, March 3, 4, 14, 28, 31, April 7, 14, 15, 25, 26, May 3, 11, 12, 16, 23, June 2, 13, 17, 19, 27, July 6, 13, 14, 20, 30, August 6, 12, 14, 29, 30, September 7, 8, 14, 16, 24, October 3, 7, 10, 17, 26, November 5, 9, 16, 27, 29, December 4, 8, 14, 18, 20.

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 1·8505 and 4·3716 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.*)

1902.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
	′	′	′	′	′	′	′	′	′	′	′	′	′
Midnight.	0·9	0·5	2·1	2·9	2·9	3·3	3·6	2·8	1·6	2·1	0·5	0·2	1·83
1h	1·2	0·7	2·2	2·9	2·8	3·3	3·5	2·5	1·3	2·1	0·7	0·6	1·86
2	1·6	1·0	2·2	2·8	2·6	3·0	3·2	2·5	1·1	2·1	0·9	0·7	1·86
3	1·8	0·8	2·2	2·8	2·6	2·7	3·0	2·1	1·3	2·1	1·0	0·9	1·82
4	1·6	0·7	2·0	2·7	2·3	2·0	2·6	1·8	1·2	2·0	0·8	1·0	1·60
5	1·5	0·7	2·0	2·2	1·7	1·0	1·4	1·0	1·0	2·0	0·7	1·0	1·23
6	0·9	0·5	1·7	2·1	1·0	0·1	0·5	0·3	0·8	1·7	0·5	0·6	0·77
7	0·6	0·3	1·2	1·3	0·3	0·0	0·1	0·0	0·1	1·0	0·3	0·4	0·35
8	0·2	0·1	0·3	0·1	0·0	0·1	0·0	0·3	0·0	0·0	0·0	0·3	0·00
9	0·0	0·0	0·0	0·0	0·4	0·7	1·0	1·2	0·7	0·0	0·0	0·4	0·25
10	1·0	1·0	1·5	1·6	1·8	2·4	2·8	2·9	2·5	1·7	0·7	1·1	1·63
11	1·9	2·2	3·8	3·9	3·4	4·7	4·6	5·2	4·4	4·3	2·0	1·9	3·41
Noon.	3·0	2·9	5·8	6·8	5·1	5·9	7·5	7·6	5·4	6·1	3·0	1·9	4·96
13h	3·8	3·2	6·9	8·1	6·0	6·6	9·0	8·9	6·0	6·5	3·0	1·9	5·71
14	3·1	3·0	6·2	7·4	6·0	6·7	8·8	7·7	5·3	5·9	2·2	1·7	5·21
15	2·1	2·3	4·6	5·7	5·4	6·0	7·5	5·9	4·2	4·5	1·3	1·2	4·10
16	1·7	1·5	3·1	4·8	4·4	4·7	5·7	4·1	3·1	3·0	1·2	1·0	3·07
17	1·6	1·7	2·6	4·0	3·7	3·2	4·5	2·5	2·5	2·6	0·9	0·7	2·42
18	1·4	1·4	2·8	3·3	3·2	2·9	4·1	2·2	2·5	2·6	0·7	0·6	2·19
19	1·1	1·0	2·8	3·2	2·7	3·2	4·1	2·6	2·3	2·3	0·5	0·4	2·06
20	0·9	0·8	2·5	3·2	2·8	3·2	4·4	2·8	2·1	2·1	0·3	0·4	2·01
21	0·7	0·7	2·5	3·2	2·8	3·1	4·1	2·8	1·9	1·9	0·4	0·1	1·90
22	0·7	0·6	2·3	3·1	2·8	3·1	4·2	2·9	2·0	1·8	0·2	0·0	1·85
23	0·7	0·6	2·1	3·0	2·7	3·1	4·0	2·7	2·1	1·8	0·1	0·2	1·81
24	1·0	0·7	2·1	3·2	2·8	3·2	3·8	2·7	2·2	1·8	0·2	0·4	1·89
Means 0h–23h	1·42	1·17	2·73	3·38	2·89	3·13	3·93	3·14	2·31	2·59	0·91	0·80	2·25
Means 1h–24h	1·42	1·18	2·73	3·39	2·89	3·12	3·93	3·13	2·33	2·58	0·90	0·81	2·25

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.*)

1902,

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.	67	124	56	104	90	167	130	241	91	168	135	250	160	296	134	248	162	300	139	257	69	128	18	33	101·4	187·7
1h	56	104	51	94	89	165	122	226	83	154	131	242	158	292	134	248	159	294	139	257	65	120	18	33	97·5	180·5
2	59	109	57	105	93	172	114	211	77	142	131	242	150	278	134	248	147	272	136	252	69	128	27	50	96·6	178·8
3	69	128	56	104	90	167	111	205	75	139	122	226	144	266	124	229	147	272	136	252	69	128	32	59	95·0	175·9
4	72	133	58	107	89	165	108	200	71	131	120	222	143	265	114	211	155	287	134	248	73	135	42	78	95·3	176·5
5	80	148	61	113	91	168	108	200	65	120	115	213	143	265	108	200	143	265	136	252	77	142	43	80	94·6	175·2
6	79	146	62	115	94	174	111	205	65	120	97	179	117	217	92	170	125	231	133	246	75	139	47	87	88·5	163·8
7	85	157	66	122	90	167	109	202	51	94	70	130	94	174	68	126	95	176	117	217	75	139	38	70	76·9	142·5
8	68	126	61	113	61	113	86	159	31	57	46	85	60	111	40	74	47	87	76	141	59	109	28	52	52·3	97·0
9	29	54	30	56	24	44	40	74	15	28	16	30	28	52	0	0	9	17	28	52	29	54	12	22	18·8	34·9
10	5	9	6	11	4	7	0	0	0	0	0	0	0	0	6	11	0	0	4	7	10	19	0	0	0·0	0·0
11	0	0	0	0	0	0	0	0	15	28	6	11	34	63	40	74	38	70	0	0	0	0	4	7	8·5	15·8
Noon.	4	7	6	11	10	19	18	33	15	28	38	70	80	148	80	148	80	148	26	48	13	24	1	2	28·0	51·9
13h	32	59	24	44	28	52	56	104	29	54	56	104	120	222	130	241	108	200	50	93	39	72	22	41	54·9	101·9
14	60	111	42	78	74	137	88	163	64	118	95	176	158	292	142	263	129	239	69	128	64	118	40	74	82·5	152·8
15	64	118	42	78	91	168	106	196	92	170	114	211	176	326	146	270	133	246	81	150	67	124	26	48	91·9	170·1
16	63	117	39	72	91	168	120	222	119	220	114	211	174	322	146	270	131	242	89	165	72	133	26	48	95·8	177·2
17	79	146	52	96	95	176	136	252	152	281	135	250	176	326	136	252	137	253	103	191	86	159	33	61	107·1	198·3
18	80	148	69	128	106	196	143	265	149	276	163	302	186	344	142	263	147	272	118	218	93	172	40	74	116·8	216·2
19	75	139	75	139	114	211	142	263	137	254	189	350	196	363	170	315	157	291	124	229	95	176	38	70	123·1	228·0
20	78	144	75	139	117	217	140	259	136	252	186	344	206	381	180	333	156	289	136	252	93	172	32	59	125·0	231·4
21	70	130	74	137	122	226	140	259	128	237	178	329	202	374	178	329	150	278	148	274	87	161	25	46	122·3	226·4
22	66	122	72	133	118	218	141	261	123	228	162	300	198	366	170	315	143	265	146	270	83	154	19	35	117·2	217·0
23	66	122	80	148	115	213	150	278	117	217	158	292	187	346	164	303	141	261	144	266	81	150	15	28	115·3	213·4
24	67	124	82	152	121	224	148	274	113	209	152	281	180	333	172	318	146	270	153	283	79	146	19	35	116·4	215·4
Means 0h–23h	58·6	108·4	50·6	93·6	79·0	146·3	100·8	186·6	79·2	146·5	107·4	198·7	137·1	253·7	115·7	214·2	118·3	219·0	100·5	186·0	64·3	119·0	26·1	48·2	83·6	154·7
1h–24h	58·6	108·4	51·7	95·6	80·3	148·6	101·5	188·0	80·1	148·2	108·1	200·0	137·9	255·2	117·3	217·1	117·6	217·7	101·1	187·1	64·7	119·8	26·1	48·3	84·2	155·9

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.)

1902.

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.	17	74	19	83	21	92	54	236	36	157	54	236	39	170	38	166	38	166	19	83	11	48	8	35	26·8	117·1
1h	17	74	11	48	23	101	54	236	36	157	56	245	39	170	38	166	34	149	17	74	11	48	6	26	25·8	112·8
2	20	87	11	48	23	101	54	236	36	157	50	219	39	170	36	157	30	131	19	83	7	31	7	31	25·0	109·2
3	16	70	9	39	27	118	56	245	36	157	54	236	39	170	38	166	32	140	19	83	5	22	13	57	26·0	113·5
4	14	61	15	66	28	122	60	262	36	157	56	245	42	184	38	166	32	140	19	83	9	39	11	48	27·3	119·4
5	14	61	18	79	32	140	64	280	44	192	58	254	48	210	44	192	32	140	20	87	7	31	13	57	30·1	131·9
6	12	52	12	52	28	122	62	271	37	162	50	219	48	210	42	184	30	131	22	96	7	31	15	66	27·7	121·3
7	12	52	14	61	36	157	67	293	35	153	46	201	46	201	40	175	32	140	24	105	3	13	19	83	28·5	124·5
8	10	44	16	70	36	157	63	275	29	127	46	201	44	192	44	192	34	149	28	122	5	22	15	66	28·1	123·0
9	8	35	14	61	28	122	51	223	19	83	35	153	30	131	30	131	26	114	20	87	7	31	14	61	20·8	91·0
10	10	44	8	35	20	87	37	162	10	44	21	92	20	87	20	87	16	70	10	44	3	13	12	52	12·9	56·4
11	6	26	3	13	0	0	10	44	0	0	0	0	4	17	16	70	6	26	0	0	0	0	13	57	2·1	9·4
Noon.	4	17	3	13	4	17	0	0	2	9	2	9	0	0	0	0	0	0	0	0	2	9	15	66	0·0	0·0
13h	9	39	5	22	20	87	10	44	8	35	16	70	16	70	18	79	8	35	8	35	4	17	13	57	8·5	37·5
14	19	83	11	48	40	175	26	114	24	105	32	140	21	92	30	131	18	79	22	96	16	70	17	74	20·3	88·9
15	17	74	11	48	42	184	38	166	29	127	36	157	35	153	36	157	22	96	34	149	16	70	19	83	25·2	110·3
16	13	57	11	48	46	201	50	219	33	144	46	201	43	188	42	184	30	131	30	131	12	52	13	57	28·1	122·7
17	9	39	5	22	44	192	56	245	33	144	47	205	41	179	46	201	32	140	28	122	10	44	9	39	27·3	119·3
18	9	39	11	48	37	162	52	227	39	170	52	227	39	170	46	201	28	122	23	101	10	44	9	39	26·9	117·5
19	4	17	7	31	39	170	46	201	40	175	54	236	39	170	46	201	28	122	23	101	8	35	5	22	25·5	111·7
20	0	0	4	17	39	170	48	210	36	157	56	245	37	162	46	201	32	140	23	101	8	35	7	31	25·3	110·7
21	0	0	0	0	37	162	44	192	36	157	54	236	37	162	42	184	30	131	19	83	8	35	5	22	23·3	102·0
22	2	9	2	9	39	170	46	201	36	157	54	236	37	162	42	184	30	131	17	74	8	35	0	0	23·4	102·3
23	6	26	4	17	37	162	42	184	44	192	54	236	37	162	47	205	30	131	22	96	7	31	1	4	24·9	108·8
24	9	39	4	17	37	162	42	184	44	192	60	262	39	170	40	175	28	122	17	74	7	31	5	22	25·0	109·1
Means 0h–23h	10·3	45·0	9·3	40·8	30·2	132·1	45·4	198·6	29·8	129·9	42·9	187·5	34·2	149·2	36·0	157·5	26·2	114·8	19·4	84·8	7·7	33·6	10·8	47·2	22·5	98·4
1h–24h	10·0	43·5	8·7	38·0	30·9	135·0	44·9	196·4	30·1	131·4	43·1	188·5	34·2	149·2	36·1	157·9	25·8	112·9	19·3	84·5	7·5	32·9	10·7	46·7	22·4	98·0

ROYAL OBSERVATORY, GREENWICH.

MAGNETIC DISTURBANCES

AND

EARTH CURRENTS.

1902.

MAGNETIC DISTURBANCES in DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE, recorded at the ROYAL OBSERVATORY, GREENWICH, in the Year 1902.

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).

1902.

January $3^d\ 2^h$ to 3^h Wave in Dec. (+ 2′): in H.F. small.

$15^d\ 12^h$ to $16^d\ 12^h$. See Plate I.

$16^d\ 18\frac{1}{4}^h$ to $19\frac{1}{2}^h$ Wave in Dec. (− 3′). $21\frac{1}{4}^h$ Decrease of Dec. (− 4′), followed by small fluctuations till 24^h. $21\frac{1}{4}^h$ to 23^h Wave in H.F. (− ·0012), followed till 24^h by a smaller wave (− ·0008).

$17^d\ 4^h$ to $4\frac{3}{4}^h$ Sharp wave in Dec. (+ 3½′).

$18^d\ 20\frac{1}{4}^h$ to 21^h Wave in Dec. (− 3′).

$24^d\ 16\frac{3}{4}^h$ to 18^h Wave in Dec. (+ 5′). 17^h to 19^h Prolonged wave in H.F. (− ·0016). 21^h to 22^h Wave in Dec. (− 2′): in H.F. small.

$25^d\ 13^h$ to $20\frac{1}{2}^h$ Loss of Dec. and H.F. registers.

$26^d\ 20^h$ to 21^h Wave in Dec. (− 3′).

$29^d\ 1\frac{1}{2}^h$ to 3^h Wave in Dec. (+ 2½′): in H.F. small.

$30^d\ 23^h$ to 24^h Wave in H.F. (+ ·0010): in Dec. small.

February $2^d\ 11^h$ to $3^d\ 12^h$ Loss of V.F. register.

$7^d\ 6^h$ to 10^h Small fluctuations in Dec. and H.F. 12^h to 15^h Wave in H.F. (− ·0015). $12\frac{1}{2}^h$ to $14\frac{1}{2}^h$ Wave in Dec. (+ 3′). $16\frac{1}{2}^h$ to $17\frac{3}{4}^h$ Wave in H.F. (− ·0010). $18\frac{3}{4}^h$ to $19\frac{1}{2}^h$ Wave in Dec. (+ 3′). $18\frac{3}{4}^h$ to 20^h Small double wave in H.F. (+ ·0006 to − ·0006). $20\frac{3}{4}^h$ to $23\frac{1}{4}^h$ Flat crested wave in Dec. (− 12′): small fluctuations in H.F. 21^h to 22^h Wave in V.F. (− ·0002). $22\frac{1}{2}^h$ Decrease of H.F. (− ·0007).

$8^d\ 1^h$ to $5\frac{1}{2}^h$ Small fluctuations in Dec. $7\frac{1}{4}^h$ to 8^h Decrease of H.F. (− ·0012). 17^h to 18^h Wave in H.F. (− ·0014). $17\frac{1}{4}^h$ to $18\frac{1}{4}^h$ Wave in Dec. (− 3′). $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Sharp wave in Dec. (− 5′): small wave in H.F. (+ ·0008). 22^h to $23\frac{1}{2}^h$ Wave in Dec. (+ 3′), with superposed fluctuations. $8^d\ 22\frac{1}{2}^h$ to $9^d\ 1^h$ Prolonged wave in H.F. (+ ·0014), with superposed fluctuations. $8^d\ 23^h$ to 24^h Decrease of V.F. (− ·0004).

$9^d\ 21^h$ to 23^h Wave in Dec. (− 5′), with superposed fluctuations: small fluctuations in H.F.

$11^d\ 22\frac{1}{2}^h$ to 24^h Wave in H.F. sharp at commencement (+ ·0012). $22\frac{3}{4}^h$ to 23^h Decrease of V.F. (− ·0004). $11^d\ 22\frac{3}{4}^h$ to $12^d\ 0\frac{1}{2}^h$ Wave in Dec. (− 6′).

$12^d\ 9\frac{1}{2}^h$ to $16\frac{1}{2}^h$ Loss of V.F. register.

1902.

February $13^d\ 13^h$ to 16^h Small sharp fluctuations in Dec. and H.F.

$14^d\ 13^h$ to 16^h Small fluctuations in H.F.

$16^d\ 18\frac{1}{2}^h$ to 21^h Small double wave in H.F. (− ·0006 to + ·0004). 20^h to 22^h Two successive waves in Dec. (− $2\frac{1}{2}'$) and (− 3′).

$20^d\ 13^h$ to 20^h Small fluctuations in Dec. and H.F. $21\frac{1}{4}^h$ to $23\frac{1}{4}^h$ Prolonged wave in Dec. sharp at commencement (− 9′): fluctuations in H.F.

$21^d\ 2^h$ to $3\frac{1}{2}^h$ Wave in Dec. (+ 5′): small double wave in H.F. (− ·0006 to + ·0006). $3\frac{1}{2}^h$ to 4^h Decrease of Dec. (− 3′). $13\frac{1}{2}^h$ to 15^h Serrated wave in H.F. (− ·0012): in Dec. small.

$22^d\ 23\frac{1}{4}^h$ to 24^h Wave in H.F. (+ ·0008): in Dec. small.

$24^d\ 21^h$ to 23^h Wave in H.F. (+ ·0010): small fluctuations in Dec.

$25^d\ 1\frac{1}{2}^h$ to 3^h Double wave in Dec. (+ 8′ to − 3′): wave in H.F. (+ ·0020): in V.F. (− ·0004). $6\frac{1}{4}^h$ to 9^h Prolonged wave in Dec. (+ 4′): shallow wave in H.F. (+ ·0010). $13\frac{1}{2}^h$ to 15^h Wave in Dec. (+ 3′). 14^h to 16^h Prolonged wave in H.F. (− ·0010). 17^h to $18\frac{1}{4}^h$ Wave in H.F. (− ·0014). $17\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Prolonged wave in Dec. (− 8′). $22\frac{1}{2}^h$ to 24^h Wave in H.F. (− ·0010).

$26^d\ 0\frac{3}{4}^h$ to 4^h Two successive waves in Dec. (+ 3′) and (+ 3′). $2\frac{1}{2}^h$ to $3\frac{1}{2}^h$ Small wave in H.F. (− ·0008). $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Wave in Dec. (− $2\frac{1}{2}'$): in H.F. small.

March $6^d\ 21^h$ to $23\frac{1}{2}^h$ Serrated wave in Dec. (− 3′): with sharp fluctuations in H.F. and V.F., followed by small waves in Dec. and H.F. till $23\frac{3}{4}^h$.

$8^d\ 8^h$ to 11^h Small fluctuations in Dec. and H.F. 16^h to 23^h Fluctuations in H.F.

$11^d\ 15^h$ Sharp increase of H.F. (+ ·0010). 15^h to 21^h Fluctuations in H.F. (± ·0005): in Dec. and V.F. small. $19\frac{1}{2}^h$ Decrease of H.F. (− ·0010). 21^h to 22^h Wave in H.F. (− ·0014). 22^h to 24^h Double wave in Dec. (+ 3′ to − 4′). 23^h to 24^h Wave in H.F. (+ ·0018).

$12^d\ 1^h$ to $3\frac{1}{2}^h$ Double wave in Dec. (− 3′ to + 3′). 2^h to 4^h Double wave in H.F. (− ·0008 to + ·0012). 2^h to 5^h Wave in V.F. (− ·0004). 4^h to 6^h Two small waves in Dec. (− 2′) and (− 2′). 6^h to $7\frac{1}{2}^h$ Wave in H.F. (− ·0010).

$18^d\ 12^h$ to $19^d\ 11^h$ Loss of Dec. and H.F. registers.

$23^d\ 20\frac{1}{2}^h$ to 22^h Serrated wave in H.F. (+ ·0008).

$24^d\ 2^h$ to $2\frac{1}{2}^h$ Wave in H.F. (+ ·0008): in Dec. small. 6^h to 12^h Fluctuations in Dec. and H.F. 12^h to $12\frac{3}{4}^h$ Sharp wave in Dec. (+ 4′): in H.F. (+ ·0016). $13\frac{1}{2}^h$ to $15\frac{3}{4}^h$ Double wave in H.F. (+ ·0010 to − ·0010). $14\frac{3}{4}^h$ to $15\frac{1}{4}^h$ Decrease of Dec. (− 7′). 15^h to 16^h Wave in V.F. (+ ·0003). $16\frac{3}{4}^h$ to $18\frac{1}{4}^h$ Wave in Dec. (− 6′): in H.F. (− ·0012). $20\frac{1}{2}^h$ to 22^h Two successive waves in Dec. (− 7′) and (− 4′): double wave in H.F. (+ ·0010 to − ·0008). 23^h to 24^h Wave in Dec. (− 4′).

$25^d\ 0^h$ to 1^h Wave in H.F. (+ ·0010). 2^h to 4^h Double wave in Dec. (+ 5′ to − 4′): fluctuations in H.F. 3^h to 5^h Wave in V.F. (− ·0004). 10^h to 12^h Loss of Dec. and H.F. registers. $18\frac{1}{4}^h$ to 20^h Wave in Dec. (− 6′): serrated wave in H.F. (+ ·0016). $22\frac{1}{2}^h$ to 24^h Wave in Dec. (+ 6′): double wave in H.F. (− ·0008 to + ·0012): double wave in V.F. (+ ·0002 to − ·0003).

$26^d\ 0^h$ to 10^h Small fluctuations in Dec. and H.F.

April $1^d\ 19\frac{1}{2}^h$ to 21^h. Wave in Dec. (− 3′).

$3^d\ 2^h$ to 4^h Shallow wave in H.F. (− ·0008). 18^h to 22^h Small fluctuations in Dec. and H.F.

$7^d\ 22\frac{3}{4}^h$ to $8^d\ 1^h$ Wave in H.F. (+ ·0012): in Dec. small.

$8^d\ 23\frac{1}{2}^h$ to $9^d\ 1^h$ Double wave in Dec. (+ 2′ to − 2′): in H.F. (− ·0008 to + ·0008): in V.F. small.

$9^d\ 14^h$ to 16^h Wave in H.F. (+ ·0010): slight decrease of Dec. 21^h to 24^h Prolonged double wave in Dec. (+ 3′ to − 3′): small wave in H.F.: slight decrease of V.F.

$10^d\ 9\frac{1}{2}^h$ to $9\frac{3}{4}^h$ Sharp wave in H.F. (+ ·0010): in Dec. small. 12^h to $15\frac{1}{2}^h$ Small fluctuations in Dec. and H.F. $14\frac{1}{2}^h$ to 16^h Wave in V.F. (+ ·0003). $15\frac{1}{2}^h$ to $16\frac{1}{4}^h$ Wave in H.F. (− ·0014).

$10^d\ 19^h$ to $11^d\ 19^h$ See Plate I.

$11^d\ 23^h$ to $23\frac{1}{2}^h$ Small sharp wave in H.F. (+ ·0010).

$13^d\ 22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (− 2′).

$17^d\ 2^h$ to $3\frac{1}{2}^h$ Wave in Dec. (+ 3′). 19^h to 22^h Small fluctuations in H.F.

1902.

April

$18^d\ 1^h$ to 2^h Wave in Dec. (+ 2′).

$19^d\ 16^h$ to $16\frac{1}{2}^h$ Sharp wave in H.F. (+ ·0012): in Dec. and V.F. small.

$20^d\ 6\frac{1}{2}^h$ to 8^h Wave in H.F. (+ ·0010): sharp fluctuations in Dec. (± 2′): in V.F. small. $12\frac{1}{2}^h$ to 15^h Double wave in Dec. (+ 3′ to − 3′). 13^h to 15^h Double wave in H.F. (− ·0016 to + ·0012): small wave in V.F. (+ ·0003). $16\frac{1}{4}^h$ to 18^h Double wave in H.F. (+ ·0018 to − 0010). $16\frac{1}{2}^h$ to 17^h Decrease of Dec. (− 6′). 20^h to $22\frac{1}{2}^h$ Two successive waves in Dec. (− 4′) and (− 5′). 22^h to $23\frac{1}{2}^h$ Serrated wave in H.F. (+ ·0014).

$21^d\ 0^h$ to 1^h Wave in Dec. (+ 5′). $1\frac{1}{2}^h$ to 7^h Small fluctuations in Dec. and H.F. $17\frac{1}{2}^h$ to 19^h Double-crested wave in Dec. (− 5′). $17\frac{1}{2}^h$ to 18^h Wave in H.F. (− ·0012). 21^h to 22^h Wave in Dec. (− 5′): serrated wave in H.F. (+ ·0010).

$22^d\ 5^h$ to 11^h Small fluctuations in Dec. and H.F. $19\frac{3}{4}^h$ to $21\frac{1}{2}^h$ Two successive small waves in Dec. (− 2′) and (− 2′).

$28^d\ 15^h$ to 19^h Small fluctuations in H.F.

$30^d\ 6^h$ to 9^h Small fluctuations in Dec. and H.F.

May

$5^d\ 14^h$ to $6^d\ 13^h$ Loss of V.F. register.

$7^d\ 12^h$ to 17^h Small fluctuations in H.F.

$8^d\ 12^h$ to $12\frac{1}{2}^h$ Wave in H.F. (+ ·0010): in Dec. small. 14^h to $16\frac{1}{2}^h$ Serrated wave in H.F. (+ ·0015), followed by fluctuations till 19^h. 19^h to 20^h Double wave in H.F. (+ ·0012 to − ·0014): in Dec. and V.F. small.

$9^d\ 7^h$ to 10^h Sharp fluctuations in Dec. (± 2′): in H.F. (± ·0007): in V.F. small.

$9^d\ 12^h$ to $10^d\ 12^h$. See Plate I.

$13^d\ 17^h$ to 24^h Small fluctuations in H.F.

$14^d\ 13^h$ to 14^h Wave in H.F. (− ·0010), followed by small fluctuations till 19^h.

$15^d\ 2\frac{1}{2}^h$ to 4^h Wave in Dec. (+ 3′): in H.F. small.

$17^d\ 21^h$ to 24^h Small fluctuations in H.F.

$18^d\ 3\frac{1}{2}^h$ Decrease of Dec. (− 3′): small wave in H.F.

$19^d\ 0^h$ to 7^h Small fluctuations in Dec. and H.F. 22^h to 24^h Loss of V.F. register. $22\frac{3}{4}^h$ to $23\frac{1}{4}^h$ Wave in Dec. (− 2½′), followed till 24^h by a gradual decrease (− 3′): wave in H.F. (+ ·0012).

$21^d\ 15^h$ to 18^h Small fluctuations in H.F.

$29^d\ 14\frac{1}{2}^h$ to $15\frac{1}{2}^h$ Wave in H.F. (− ·0010), followed by small fluctuations till 20^h. $21\frac{1}{2}^h$ to 22^h Gradual decrease of H.F. (− ·0010).

$30^d\ 5^h$ to $6\frac{1}{4}^h$ Wave in Dec. (− 3′): in H.F. (− ·0010). 10^h to $16\frac{1}{2}^h$ Loss of Dec., H.F., and V.F. registers.

$31^d\ 16\frac{1}{2}^h$ to 17^h Wave in H.F. (+ ·0012): in Dec. small. 20^h to 24^h Small fluctuations in Dec. and H.F.

June

$1^d\ 0^h$ to 2^h Wave in H.F. (+ ·0014): in V.F. small. 1^h to 3^h Wave in Dec. (− 3′). 6^h to $6\frac{1}{2}^h$ Wave in Dec. (− 3′). 14^h to 20^h Fluctuations in H.F.

$3^d\ 16^h$ to $6^d\ 16^h$ Loss of Dec. register.

$5^d\ 18^h$ to 22^h Fluctuations in H.F.

$6^d\ 15\frac{1}{2}^h$ to $17\frac{1}{4}^h$ Wave in H.F. (− ·0012).

$7^d\ 11^h$ to 18^h Loss of Dec., H.F., and V.F. registers.

$8^d\ 3^h$ to 11^h Loss of Dec. and H.F. registers.

$8^d\ 19^h$ to $9^d\ 9^h$ Loss of V.F. register.

$10^d\ 18^h$ to $18\frac{1}{2}^h$ Wave in H.F. (+ ·0010), followed by small fluctuations till 24^h.

$11^d\ 1\frac{3}{4}^h$ to 5^h Small fluctuations in H.F. 4^h to 9^h Small fluctuations in Dec. $14\frac{1}{2}^h$ Increase of H.F. (+ ·0010). 15^h to $15\frac{3}{4}^h$ Wave in H.F. (− ·0016). $19\frac{1}{2}^h$ to 20^h Small double wave in H.F.

$12^d\ 5^h$ to $8\frac{1}{2}^h$ Small fluctuations in Dec.

$14^d\ 4^h$ to 8^h Small fluctuations in Dec.

1902.

June

15d 11¼h to 11½h Sharp wave in H.F. (+ ·0012): in Dec. small. 12½h to 12¾h Double wave in H.F. (− ·0008 to + ·0010): small wave in Dec. 13¼h to 13¾h Sharp double wave in H.F. (+ ·0015 to − ·0030), followed by small fluctuations till 20h (± ·0007). 13½h to 13¾h Wave in Dec. (− 4′).

16d 4h to 8h Sharp fluctuations in Dec. (± 1′).

17d 15h to 23h Small fluctuations in H.F. (± ·0008).

21d 13½h to 15h Serrated wave in H.F. (− ·0018).

22d 12½h to 13½h Wave in H.F. (− ·0010). 14¾h to 15¼h Wave in H.F. (− ·0008): in Dec. small. 15½h to 17h Prolonged wave in H.F. (− ·0012). 18½h to 20h Double wave in H.F. (− ·0006 to + ·0008).

23d 20h to 24d 9h Loss of Dec. and H.F. registers.

24d 13¾h to 14½h Wave in H.F (− ·0008), followed by small fluctuations till 16h. 16½h to 18½h Two successive waves in H.F. (− ·0010) and (− ·0010), followed by small fluctuations till 23h.

25d 0h to 8h Small fluctuations in Dec. and H.F. 11h to 16½h Loss of Dec. register.

26d 2h to 4½h Wave in Dec. (+ 3′). 7h to 8h Small fluctuations in Dec. 13¾h to 14¾h Wave in H.F. (− ·0008). 16½h to 17½h Small wave in H.F. (+ ·0007).

27d 5h to 6h Small fluctuations in Dec. (± 1′).

28d 18½h to 19¼h Wave in H.F. (+ ·0010): decrease of Dec. (− 3′).

29d 5h to 9h Small fluctuations in Dec. 12¾h to 14h Serrated wave in H.F. (+ ·0018): in Dec. small: followed by a smaller wave in H.F. till 15¼h (+ ·0010). 18h to 19h Wave in Dec. (− 5′) in H.F. (+ ·0018): in V.F. small.

29d 20h to 30d 11h Loss of Dec. and H.F. registers.

30d 15½h to 16½h Flat-crested wave in H.F. (− ·0007): followed by small fluctuations till 19h.

July

5d 4½h to 5½h Decrease of Dec. (−4′).

8d 14½h to 16½h Double wave in H.F. (+ ·0009 to − ·0016). 15½h to 15¾h Small wave in Dec. (−2′). 17h to 20h Fluctuations in H.F. (± ·0007). 20h Decrease of H.F. (− ·0014).

9d 15h to 18h Fluctuations in H.F.

10d 0¾h to 1¾h Wave in Dec. (+4′): in H.F. small: decrease of V.F. (− ·0003).

12d 0h to 1½h Wave in V.F. (+ ·0004). 0h to 2½h Double wave in H.F. (+ ·0010 to − ·0008). 1h to 3½h Shallow wave in Dec., with superposed fluctuations (−3′). 5½h to 8h Fluctuations in Dec. (±1′). 14h to 15¼h Flat-crested wave in H.F. (− ·0012). 16h to 19h Sharp fluctuations in H.F.

15d 1¾h to 4¾h Prolonged shallow wave in H.F. (+ ·0008). 4½h to 8h Small fluctuations in Dec. 15h to 24h Fluctuations in H.F.

16d 0h to 3½h Small fluctuations in Dec. and H.F.

23d 20h to 23h Fluctuations in H.F. (± ·0005). 21¾h to 22¾h Serrated wave in Dec. (+4′): followed by a decrease till 24h (−5′).

24d 0h to 2h Small fluctuations in H.F. 3h to 4h Small double wave in Dec. (−2′ to +3′). 3½h to 6h Two successive waves in H.F. (+ ·0014) and (+ ·0012). 4½h to 5½h Double wave in Dec. (+3′ to −3′). 5h to 6½h Wave in V.F. (− ·0003). 13h to 16h Fluctuations in H.F. (± ·0007): in Dec. small. 17h to 18h Sharp wave in H.F. (+ ·0020): followed till 20h by a prolonged shallow wave (+ ·0017). 19½h to 21h Gradual decrease of Dec. (−10′): decrease of H.F. (− 0025), with superposed fluctuations. 21h to 22h Irregular wave in H.F., with superposed fluctuations (− ·0016). 22¾h to 23½h Sharp double wave in H.F. (− ·0010 to + ·0010). 24d 22¾h to 25d 1¼h Double wave in Dec. (−6′ to +6′).

25d 0h to 1h Wave in H.F. (− ·0012). 0½h to 3h Prolonged wave in V.F. (− ·0008). 3h to 8h Fluctuations in Dec. and H.F. 13h to 21h Fluctuations in H.F.

26d 2h to 3h Wave in Dec. (+6′): in H.F. (− ·0014): in V.F. small.

August

3d 16h to 24h Small fluctuations in H.F.

4d 2¼h to 3¼h Wave in H.F. (+ ·0010): in Dec. small.

9d 15½h to 16¼h Double wave in H.F. (+ ·0007 to − ·0010). 21½h to 21¾h Wave in H.F. (− ·0012): in Dec. small.

1902.

August

10d 17½h to 18¼h Sharp wave in H.F. (+ ·0022): in Dec. and V.F. small. 20¼h to 21¼h Wave in H.F. (+ ·0010). 21½h to 23h Small fluctuations in Dec. and H.F. 23h to 24h Decrease of Dec. (− 3′).

16d 14½h to 15¼h Wave in H.F. sharp at commencement (− ·0017).

19d 1h to 13h Loss of Dec. register.

20d 21h to 21½h Wave in H.F. (+ ·0010).

21d 0h to 6h Small fluctuations in Dec. and H.F. 10h to 12h Fluctuations in Dec. and H.F.

21d 12h to 22d 12h See Plate I.

22d 19½h to 20½h Wave in Dec. (− 3′). 20h to 20¾h Wave in H.F. (+ ·0008).

23d 2¼h to 3½h Double-crested wave in Dec. (+ 3′): followed by small fluctuations in Dec. and H.F. till 9h. 21¼h to 22½h Wave in H.F. (+ ·0010). 21½h Small decrease of Dec. (− 2′).

25d 13½h to 16h Small sharp fluctuations in H.F. 19½h to 21h Wave in Dec. (− 6′): in H.F. small. 21h to 24h Small fluctuations in Dec. and H.F.

31d 17h to 23h. Fluctuations in H.F.

September

2d 1h to 4h Small fluctuations in H.F. 15h to 16½h Serrated wave in H.F. (− ·0010).

3d 19h to 20h Wave in Dec. (− 3′): in H.F. small.

12d 21¾h to 23h Sharp wave in H.F. (+ ·0026). 22h to 23¼h Wave in Dec. (− 3′). 22h to 22½h Decrease of V.F. (− ·0004).

15d 21h to 24h Fluctuations in H.F.

17d 15½h to 17½h Prolonged wave in H.F. (− ·0010).

18d 18h to 20½h Double wave in H.F. (+ ·0010 to − ·0008). 20½h to 22h Wave in Dec. (− 8′): in H.F. small.

19d 7h to 8h Sharp fluctuations in Dec. 8h to 10h Prolonged wave in H.F. (− ·0015). 11¾h to 12h Serrated wave in H.F. (− ·0008). 15¾h to 17½h Prolonged wave in H.F. (− ·0010). 19h to 20h Wave in H.F. (− ·0012). 19¾h to 20¾h Wave in Dec. (− 8′): followed till 21¾h by a smaller wave (− 3′). 20h to 23h Prolonged double wave in H.F., with superposed fluctuations (− ·0014 to + ·0020). 21½h to 22½h Two successive waves in Dec. (+ 4′) and (+ 4′). 22h to 23½h Wave in V.F. (− ·0003). 19d 23½h to 20d 1½h Prolonged wave in Dec. (+ 4′).

20d 3¼h to 4½h Wave in H.F. (− ·0010). 3½h to 5h Flattened wave in Dec. (+ 3′): followed by small fluctuations till 9h. 10¼h to 10¾h Wave in Dec. (− 3′). 13h to 19½h Small fluctuations in H.F. 18h to 20h Prolonged wave in Dec. (− 4′). 20¼h to 21¾h Serrated wave in H.F. (+ ·0014): followed till 23h by a smaller wave (+ ·0010).

22d 11h to 16½h Loss of Dec. H.F. and V.F. registers. 18½h Decrease of Dec. (− 4′): followed till 23h by small fluctuations in Dec. and H.F. 22d 22½h to 23d 1h Wave in H.F. (+ ·0010).

23d 1h to 3½h Wave in Dec. (+ 7′). 20h to 20¾h Wave in H.F. (+ ·0010).

28d 0h to 1h Wave in Dec. (+ 3′): in H.F. small.

29d 13½h to 16h Small fluctuations in H.F. 29d 21¾h to 30d 0¾h Prolonged wave in Dec. (− 5′): serrated wave in H.F. (+ ·0010).

30d 19h to 20h Wave in H.F. (− ·0010). 20¾h to 21½h Wave in Dec. (− 3′).

October

6d 14¼h to 15h Sharp wave in Dec. (+ 4′).

11d 16h to 17½h Sharp fluctuations in H.F. 18¼h to 19h Sharp wave in Dec. (+ 4′): in H.F. (− ·0014). 19½h to 23h Prolonged wave in Dec. (− 10′). 19¾h to 21h Wave in H.F. (− ·0012). 21h to 21¾h Sharp wave in H.F. (− ·0020): in V.F. (− ·0003). 11d 23h to 12d 0½h Wave in Dec. (− 3′): in H.F. small.

13d 14h to 16h Small fluctuations in H.F.

19d 1¼h to 3h Wave in Dec. (+ 3′). 1½h to 4h Wave in H.F. (+ ·0008). 11h to 15½h Loss of H.F. register. 19d 17h to 20d 9½h Loss of H.F. register. 19d 23h to 20d 6h Loss of Dec. and V.F. registers.

23d 19¼h to 19½h Sharp wave in H.F. (+ ·0010). 21h to 23h Small sharp fluctuations in Dec. and H.F.

24d 18h Decrease of H.F. (− ·0015). 20½h Decrease of Dec. (− 5′). 20½h to 21¾h Wave in H.F. (− ·0014): in Dec. small, followed by small fluctuations in H.F. till 23h. 24d 22½h to 25d 0¼h Double wave in Dec. (+ 3′ to − 5′): wave in H.F. (+ ·0013) in V.F. small.

1902.

October $25^d\ 1\frac{1}{2}^h$ to 3^h Wave in Dec. (− 4′): in H.F. small.

$27^d\ 0^h$ to 3^h Small fluctuations in Dec. and H.F. 15^h to $16\frac{1}{2}^h$ Serrated wave in H.F. (−·0012). $15\frac{1}{2}^h$ to 17^h Wave in Dec. (− 6′). $21\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Serrated wave in H.F. (+ ·0010): in Dec. (− 3′).

$28^d\ 21\frac{1}{2}^h$ to $22\frac{3}{4}^h$ Wave in H.F. (+ ·0010): in Dec. small.

$29^d\ 21^h$ to 24^h Small fluctuations in H.F.

$30^d\ 1^h$ to $2\frac{1}{2}^h$ Wave in Dec. (− 4′). $1\frac{1}{2}^h$ to $1\frac{3}{4}^h$ Small sharp wave in H.F. (− ·0010). 7^h to $8\frac{1}{2}^h$ Wave in Dec. (+ 3′). 8^h to $9\frac{1}{2}^h$ Wave in H.F. (− ·0016). $8\frac{1}{2}^h$ to 10^h Wave in Dec. (+ 5′). $30^d\ 23\frac{3}{4}^h$ to $31^d\ 0\frac{1}{2}^h$ Wave in Dec. (− 3′).

$31^d\ 9\frac{1}{2}^h$ to $10\frac{1}{2}^h$ Wave in Dec. (− 3′). $13\frac{1}{2}^h$ to $13\frac{3}{4}^h$ Wave in Dec. (− 4′): in H.F. (− ·0017). $13\frac{3}{4}^h$ to $14\frac{1}{2}^h$ Serrated wave in H.F. (− ·0012). 17^h to $17\frac{1}{4}^h$ Decrease of Dec. (− 3′). $17\frac{1}{4}^h$ to 18^h Wave in Dec. (+ 3′). $17\frac{3}{4}^h$ Decrease of H.F. (− ·0017). $18\frac{1}{2}^h$ to $19\frac{1}{4}^h$ Wave in H.F. (+ ·0012). 19^h to $19\frac{1}{2}^h$ Wave in Dec. (− 3′). $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Wave in H.F. (+ ·0010). $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Wave in Dec. (− 3′): in H.F. (+ ·0010). $31^d\ 23^h$ to Nov. $1^d\ 0\frac{1}{2}^h$ Prolonged wave in Dec. (−7′): in H.F. (+ ·0008).

November $2^d\ 19^h$ to 20^h Wave in H.F. (+ ·0012).

$6^d\ 18^h$ to $19\frac{1}{2}^h$ Prolonged wave in Dec. (− 7′).

$10^d\ 21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Wave in Dec. (− 4′): in H.F. (+ ·0010).

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

$18^d\ 21\frac{1}{2}^h$ to $22\frac{3}{4}^h$ Wave in Dec. (− 4′): in H.F. small.

$21^d\ 18^h$ to 22^h Fluctuations in H.F. 20^h to 22^h Wave in Dec. (− 9′).

$22^d\ 17\frac{1}{2}^h$ to 19^h Wave in Dec. (− 8′). $17\frac{3}{4}^h$ to $18\frac{1}{2}^h$ Wave in H.F. (− ·0014). 20^h to 23^h Fluctuations in H.F.

$23^d\ 8^h$ to 10^h Sharp fluctuations in H.F.: in Dec. small. $17\frac{1}{2}^h$ Decrease of H.F. (− ·0010). $17\frac{1}{4}^h$ to $18\frac{1}{2}^h$ Wave in Dec. (− 3′). 22^h to $22\frac{1}{2}^h$ Decrease of Dec. (− 10′). $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in H.F. (− ·0020): in V.F. (− ·0003). 23^h to $23\frac{1}{2}^h$ Wave in Dec. (+ 3′).

$24^d\ 0\frac{1}{2}^h$ to 2^h Double wave in Dec. (+ 4′ to − 3′). 2^h to $3\frac{1}{2}^h$ Wave in H.F. (+ ·0024): double wave in Dec. (+ 4′ to − 4′): decrease of V.F. (− ·0006). 6^h to $7\frac{1}{2}^h$ Wave in H.F. (+ ·0010): in Dec. (+ 3′). 9^h to $9\frac{3}{4}^h$ Increase of Dec. (+ 5′). 12^h to 16^h Fluctuations in Dec. H.F. and V.F. 16^h to $17\frac{1}{2}^h$ Serrated wave in Dec. (− 6′). $19\frac{1}{2}^h$ to 22^h Double wave in Dec. (− 3′ to + 3′): in H.F. small.

$25^d\ 0^h$ to 3^h Small fluctuations in Dec. $18\frac{1}{2}^h$ to 19^h Wave in Dec. (+ 3′). 19^h to 21^h Prolonged wave in H.F., with superposed fluctuations (+ ·0038). 19^h to 21^h Two successive waves in Dec. (− 6′) and (− 5′): decrease of V.F. (− ·0004).

$26^d\ 0\frac{1}{4}^h$ to $1\frac{1}{4}^h$ Double wave in Dec. (+ 3′ to − 3′): wave in H.F. (+ ·0010): decrease of V.F. (− ·0003). $14\frac{3}{4}^h$ Decrease of H.F. (− ·0010). $15\frac{1}{2}^h$ to $16\frac{1}{2}^h$ Wave in Dec. (− 5′): in H.F. (− ·0012).

December $7^d\ 20\frac{3}{4}^h$ to $21\frac{1}{2}^h$ Wave in Dec. (− 3′).

$9^d\ 16\frac{1}{2}^h$ to 18^h Wave in H.F. (− ·0014). $16\frac{3}{4}^h$ to $17\frac{1}{2}^h$ Wave in Dec. (+ 3′).

$10^d\ 2^h$ to 6^h Small fluctuations in Dec. and H.F.

$11^d\ 17^h$ to 18^h Wave in H.F. (− ·0008). 20^h to $21\frac{1}{2}^h$ Wave in Dec. (− 3′): in H.F. (− ·0010).

$12^d\ 17^h$ to 18^h Wave in H.F. (− ·0010): in Dec. small.

$13^d\ 16\frac{1}{2}^h$ to 18^h Two successive waves in Dec. (− 3′) and (− 2′). $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Wave in H.F. (+ ·0012).

$15^d\ 0\frac{3}{4}^h$ to 2^h Wave in Dec. (+ 3′): in H.F. (+ ·0008).

$22^d\ 21\frac{3}{4}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (− 4′).

$23^d\ 1^h$ to 2^h Wave in H.F., with superposed fluctuations (+ ·0012). 1^h to $1\frac{1}{2}^h$ Wave in Dec. (− 3′), followed by another wave till 3^h (− 4′). 13^h to 14^h Wave in H.F. (− ·0014). 13^h to $14\frac{1}{2}^h$ Wave in Dec. (− 3′). $19\frac{1}{2}^h$ to $20\frac{1}{4}^h$ Double-crested wave in Dec. (− 3′): in H.F. small.

$24^d\ 2^h$ to 3^h Wave in Dec. (+ 3′). $15\frac{1}{2}^h$ to 17^h Wave in Dec. (− 4′).

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

$26^d\ 20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Wave in Dec. (− 4′). 23^h to 24^h Wave in H.F. (+ ·0010): in Dec. small.

$27^d\ 23^h$ to 24^h Wave in Dec. (+ 2½′): in H.F. small.

EXPLANATION OF THE PLATES.

The magnetic motions figured on the Plates are :—

(1.) Those for days of great disturbance—None in 1902.

(2.) Those for days of lesser disturbance—January 15–16, April 10–11, May 9–10, August 21–22.

(3.) Those for four quiet days—January 31, May 16, August 14, November 9—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 $0^{in.}73 = 18{\cdot}6^{mm.}$ in the horizontal force curve, and by $0^{in.}72 = 18{\cdot}2^{mm.}$ in the vertical force curve.

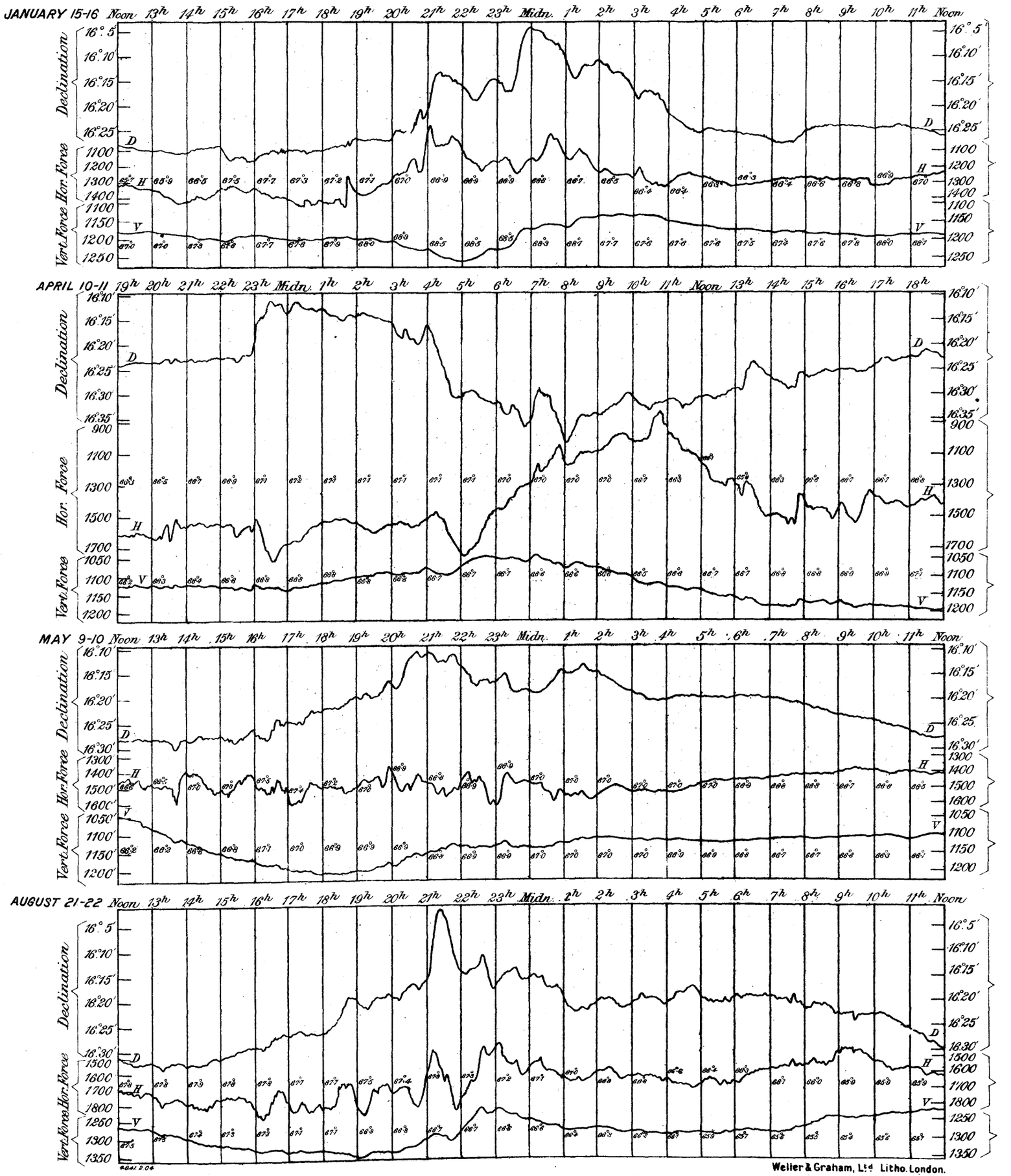
Downward motion indicates increase of declination and of horizontal and vertical force.

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.

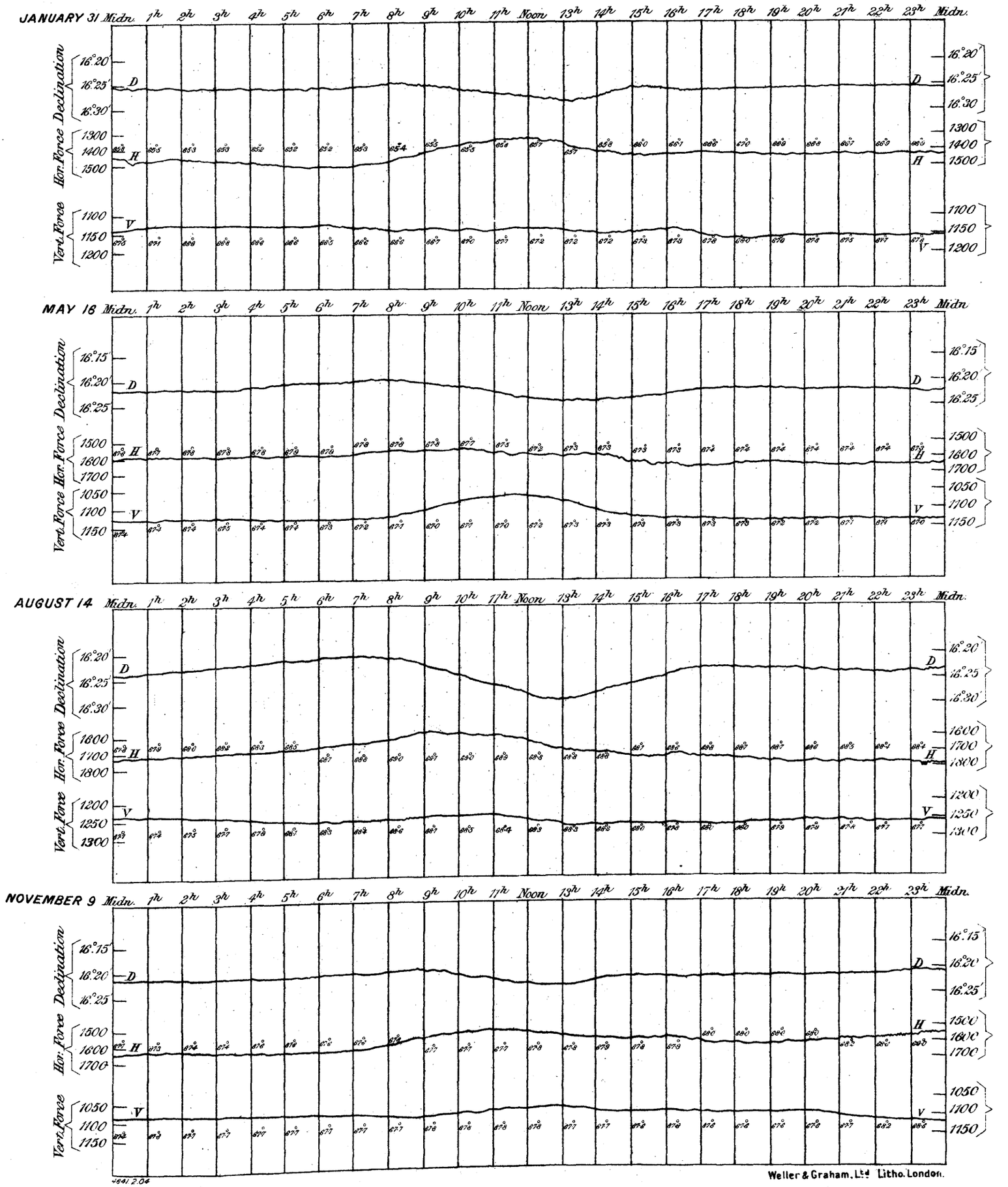
An arrow (↑) indicates that the register was out of range of registration in the direction of the arrow head.

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

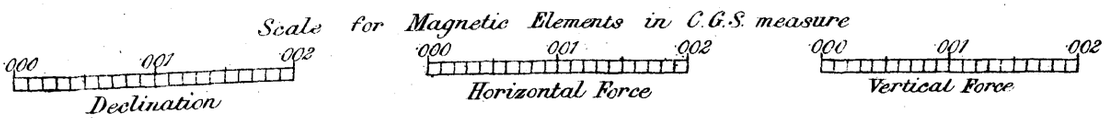
Magnetic Disturbances recorded at the Royal Observatory Greenwich, 1902



Types of Magnetic Diurnal Variations at four seasons of the Year recorded at the Royal Observatory Greenwich 1902.



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



ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

METEOROLOGICAL OBSERVATIONS.

1902.

MONTH and DAY, 1902.	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 50 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	Last Quarter	29·535	51·7	43·2	8·5	47·7	+ 9·2	45·8	43·7	4·0	5·9	2·1	87	76·6	38·3	0·130	1·2	... : wwP, wN
2	...	29·218	52·0	45·4	6·6	49·2	+10·7	46·0	42·6	6·6	9·2	1·5	78	69·1	38·0	0·030	1·8	... : wwP
3	...	29·785	52·0	39·4	12·6	47·1	+ 8·6	45·6	43·9	3·2	5·7	1·5	90	57·8	30·4	0·000	1·0	wwP : wwP : ...
4	...	29·769	52·7	42·5	10·2	49·2	+10·8	47·5	45·7	3·5	4·4	1·3	88	56·9	38·2	0·128	5·0	... : wwP, wwN
5	Apogee	30·014	46·9	37·3	9·6	42·8	+ 4·5	39·9	36·4	6·4	8·8	2·8	79	59·7	29·0	0·002	0·0	wwP : wP : ...
6	...	30·300	49·8	37·2	12·6	45·2	+ 7·0	42·8	40·0	5·2	8·8	2·9	82	62·3	29·0	0·000	0·0	... : wP : wP
7	Greatest Declination S.	30·454	46·2	40·7	5·5	43·8	+ 5·7	41·4	38·6	5·2	8·0	3·1	82	50·2	31·2	0·000	0·0	wP
8	...	30·345	43·9	40·7	3·2	42·5	+ 4·5	40·0	36·9	5·6	8·1	3·3	81	46·1	37·5	0·000	0·0	wP : mP : mP
9	New	30·061	50·9	40·4	10·5	46·2	+ 8·3	44·7	43·0	3·2	6·8	1·0	89	60·2	36·9	0·007	2·2	wP : wwP
10	...	29·933	52·5	47·8	4·7	50·0	+12·1	48·8	47·5	2·5	6·4	0·6	92	60·0	42·8	0·004	1·3	wwP
11	...	29·978	50·0	40·2	9·8	44·1	+ 6·2	43·4	42·6	1·5	4·0	0·0	95	50·9	40·2	0·031	1·5	wwP
12	...	29·951	48·5	41·8	6·7	45·0	+ 7·1	44·2	43·2	1·8	6·3	0·0	94	54·0	34·5	0·001	0·0	wwP : wP
13	...	30·142	43·6	34·2	9·4	37·1	− 0·9	35·3	32·8	4·3	8·5	1·8	85	56·0	27·2	0·000	2·0	wP : mP : mP
14	In Equator	30·465	35·1	28·3	6·8	32·9	− 5·3	30·9	26·9	6·0	9·9	2·6	78	47·3	18·5	0·000	0·0	mP : sP : mP
15	...	30·641	37·8	24·7	13·1	32·3	− 6·0	30·5	26·6	5·7	8·4	0·0	78	60·0	14·1	0·000	0·0	sP : sP : mP
16	...	30·509	45·0	36·2	8·8	41·9	+ 3·4	40·1	37·8	4·1	5·1	2·2	86	50·7	31·9	0·000	0·0	...
17	First Quarter	30·350	44·1	40·3	3·8	42·3	+ 3·8	41·4	40·3	2·0	2·6	0·9	93	44·2	37·2	0·000	0·0	... : wP
18	...	30·199	43·3	28·4	14·9	39·1	+ 0·6	37·1	34·5	4·6	9·5	1·6	84	57·2	20·4	0·000	0·0	wP : mP : sP
19	...	30·243	43·2	27·4	15·8	37·5	− 1·0	34·9	31·3	6·2	11·0	1·8	79	58·8	20·0	0·000	1·0	mP
20	...	30·110	49·8	43·2	6·6	46·9	+ 8·5	43·9	40·5	6·4	8·4	4·6	80	62·0	35·0	0·000	3·0	wP
21	Greatest Declination N.: Perigee	30·175	51·7	46·2	5·5	48·5	+10·2	46·7	44·8	3·7	6·8	2·7	87	83·5	43·0	0·000	0·0	wwP
22	...	30·160	51·7	46·9	4·8	48·6	+10·3	47·3	45·9	2·7	6·0	1·3	91	64·9	44·0	0·009	0·0	wwP
23	...	30·005	48·3	42·7	5·6	46·4	+ 8·0	45·5	44·5	1·9	4·6	1·0	94	55·2	35·5	0·000	1·5	wwP
24	Full	29·313	46·4	35·1	11·3	42·3	+ 3·8	40·3	37·9	4·4	7·0	1·5	85	59·8	29·5	0·096	5·5	wwP : wwP, wwN : wP
25	...	29·085	38·5	30·8	7·7	34·5	− 4·3	32·8	30·0	4·5	10·3	1·7	83	57·8	25·2	0·000	0·0	wP
26	...	29·581	37·7	31·4	6·3	34·7	− 4·3	32·4	28·7	6·0	12·4	0·5	77	61·8	26·0	0·000	0·0	wP
27	In Equator	29·363	47·1	34·0	13·1	41·1	+ 1·8	39·8	38·1	3·0	7·6	0·0	90	57·5	31·6	0·192	1·0	wwP, wN : wwP, wN : wwP
28	...	29·156	45·9	35·1	10·8	41·9	+ 2·4	39·6	36·7	5·2	8·1	2·9	83	77·4	27·5	0·008	3·0	wwP : wP
29	...	29·820	37·1	29·3	7·8	33·8	− 5·9	30·0	23·1	10·7	16·1	4·8	64	65·0	22·5	0·000	1·0	wP : sP : mP
30	...	30·258	37·4	29·2	8·2	32·9	− 6·9	31·0	27·2	5·7	7·5	0·4	80	59·8	23·3	0·000	0·0	mP : wP
31	Last Quarter	30·496	37·0	34·2	2·8	35·4	− 4·4	32·6	28·3	7·1	9·4	3·6	75	48·6	26·0	0·001	3·0	wP
Means	...	29·981	45·7	37·2	8·5	42·0	+ 3·5	40·1	37·4	4·6	7·8	1·9	84·2	59·1	31·1	Sum 0·639	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 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was $29^{in}\cdot981$, being $0^{in}\cdot203$ *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 52°·7 on January 4; the lowest in the month was 24°·7 on January 15; and the range was 28°·0.
The mean of all the highest daily readings in the month was 45°·7, being 2°·6 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 37°·2, being 3°·6 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 8°·5, being 1°·0 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 42°·0, being 3°·5 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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.	Least.	Mean of 24 Hourly Measures.	ROBINSON'S. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Jan. 1	2·8	7·8	SSW : SW	S : SSE	13·9	0·0	1·50	536	9,shs.-r,st.-w: p.-cl : 5,ci.-cu,ci.-s,cu.-s	6, cu, ci.-cu, th.-cl : 9, fq.-r, st.-w : 10, fq.-th.-r, st.-w
2	2·2	7·9	S : SSW : SW	WSW : SW	15·0	0·0	2·36	666	9, fq.-r, w : 0, w : 3, ci.-cu, th.-cl, st.-w	6, cu,ci.-cu,li.-cl, w: 10 : p.-cl, w
3	0·3	7·9	SW : S	S : SSW	3·7	0·0	0·42	346	p.-cl : 0 : 9	10, oc.-slt.-r : 10 : 10, oc.-m.-r
4	0·0	7·9	SSW	SSW : SW	9·8	0·0	1·54	549	9 : 9,sc,cu,th.-cl: 10, sc, w	10, sc, w : 10, fq.-r, w : p.-cl
5	1·3	7·9	SW	WNW : SW	5·5	0·0	0·99	446	p.-cl : 9, ci.-cu, li.-cl, w	9, li.-cl, slt.-sh : li.-cl : 3, li.-cl, f
6	0·0	8·0	SW	WSW : W : SW	4·3	0·0	0·44	392	p.-cl, d : 9, ci.-cu, th.-cl	5, cu, li.-cl : p.-cl : 0, hy.-d
7	0·0	8·0	SW	SW	1·8	0·0	0·15	296	9 : 10	10 : 10
8	0·0	8·0	SW	SSW : S	1·0	0·0	0·03	202	10 : 10, glm : 10	10 : 10
9	0·0	8·1	S : SSW	SSW	5·0	0·0	0·89	435	10 : 10	10, sc, w : 10, sc, fq.-slt.-r, w : 10
10	0·4	8·1	SSW : S	SSW	5·0	0·0	0·93	458	10 : 10, th.-r : 10, sc	8,cu,ci.-cu,oc.-m.-r: p.-cl : 10
11	0·0	8·1	SSW : SW : NNE	NNE : ENE : E	3·2	0·0	0·28	258	10,oc.-slt.-r : 10 : 10, glm, oc.-m.-r	10, oc.-m.-r : 10, oc.-m.-r
12	0·0	8·2	SE : SSE : S	SW : SSW	0·3	0·0	0·00	138	10, oc.-m.-r : 10	10 : 10
13	0·0	8·2	NNE : N	N	1·6	0·0	0·14	282	10 : p.-cl : 6,ci.-cu,ci.-s,th.-cl, so.-ha	4,ci, ci.-cu, ci.-s, so.-ha : p.-cl
14	0·0	8·2	N : NNW	N : NNW	1·6	0·0	0·14	232	9 : p.-cl,ho.-fr: 5,ci.-s,th.-cl, so.-ha	6, cu, ci.-cu, th.-cl : 0, ho.-fr, slt.-f
15	1·5	8·2	NNW : SSW	SW : SSW	2·4	0·0	0·17	273	0, ho.-fr, slt.-f : 4, ci, ci.-cu, ci.-s	3,ci.-cu, ci.-s, th.-cl: 6, th.-cl : v
16	0·0	8·3	SW	SW : SSW	3·4	0·0	0·42	364	10, slt.-sn : 10	10 : 10 : 10, slt.-f
17	0·0	8·3	SSW	SSW : Calm : Variable	0·1	0·0	0·00	106	10 : 10, f, glm	10, slt.-f : 10, slt.-f
18	1·1	8·4	NNW : N	NNW : Calm : Variable	0·2	0·0	0·00	99	10, slt.-f : 10 : 8, th.-cl	5, cu, th.-cl : li.-cl : f, ho.-fr
19	4·9	8·4	SW : SSW	SW : SSW	3·4	0·0	0·08	237	f, ho.-fr : f, ho.-fr : 0, slt.-f	p.-cl : 10
20	0·0	8·5	SSW : SW	SW	7·2	0·0	1·84	597	9 : 9, w : 10, w	10, w : 10
21	0·7	8·5	SW : SSW	SW	3·8	0·0	0·50	385	10 : 10 : 8, cu, th.-cl	8 : 10 : 10
22	0·0	8·6	SW	SW	1·7	0·0	0·15	300	10 : 10 : 9	10, sc : 10, fq.-th.-r : 9, oc.-slt.-r
23	0·0	8·6	SW : SSW	SSW : S : SSE	1·7	0·0	0·02	192	9 : 8	10 : 10
24	1·1	8·7	SSE : S	S : SSW : SW	4·6	0·0	0·99	429	p.-cl,lu.-ha: 10, sc : 10, sc, slt.-r	9, cu, ci.-cu, ci.-s, slt.-r : p.-cl, oc.-slt.-r : th.-cl, ho.-fr, lu.-ha
25	3·1	8·7	S : SW	WSW : SW	3·2	0·0	0·23	326	9, ho.-fr : m, ho.-fr : 4, ci.-cu, th.-cl	4, cu, th.-cl : p.-cl : v, ho.-fr, lu.-ha
26	2·7	8·8	W : WNW : WSW	WSW : SW : SSW	8·1	0·0	1·19	474	p.-cl, w : p.-cl,ho.-fr: 3, cu, th.-cl	li.-cl : 10, sl, slt.-sn : 10
27	0·0	8·8	S : SE : WSW	WSW : SW : SSW	3·9	0·0	0·25	298	10, c.-r : 10, r : 10, sc,fq.-slt.-r	10, oc.-slt.-r : 10, oc.-slt.-r : p.-cl
28	0·0	8·9	S : SSW : SW	SW : NW	4·5	0·0	0·69	404	9, shs.-r : 10 : p.-cl, oc.-slt.-r	9, cu, th.-cl, n : 8, w : li.-cl, w
29	5·9	8·9	NW	NNW : SW : WSW	5·0	0·0	0·70	379	0, ho.-fr : 0, ho.-fr : 1	2, th.-cl : 4, th.-cl, slt.-sn : li.-cl
30	2·9	9·0	NW : NNW	NNW : N	5·3	0·0	0·92	426	v,oc.-sn,w: p.-cl,ho.-fr: 8, cu, th.-cl	8, cu, ci.-s, th.-cl : th.-cl : p.-cl, ho.-fr
31	0·1	9·0	N : NNE	NNE : NE	13·0	0·1	2·87	686	9, w : 8,th.-cl,w: 10,sc,slt.-sn,w	9, cu, w : 0, w
Means	1·0	8·4	...	...	...	...	0·67	362		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 40°·1, being 2°·9 *higher* than
The mean *Temperature of the Dew Point* for the month was 37°·4, being 2°·0 *higher* than
The mean *Degree of Humidity* for the month was 84·2, being 4·6 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·224, being 0in·017 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·6, being 0gr·2 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 554 grains, being *the same as*
} the average for the 50 years, 1841–1890.

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 0·120. The maximum daily amount of *Sunshine* was 5·9 hours on January 29.

The highest reading of the *Solar Radiation Thermometer* was 83°·5 on January 21; and the lowest reading of the *Terrestrial Radiation Thermometer* was 14°·1 on January 15.

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

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 1, S. 15, and W. 10.

The *Greatest Pressure of the Wind* in the month was 15·0 lbs. on the square foot on January 2. The mean daily *Horizontal Movement of the Air* for the month was 362 miles; the greatest daily value was 686 miles on January 31; and the least daily value was 99 miles on January 18.

Rain fell on 9 days in the month, amounting to 0in·639, as measured by gauge No. 6 partly sunk below the ground; being 1in·350 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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 50 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	Apogee	30·352	39·4	31·6	7·8	34·6	− 5·1	31·2	25·5	9·1	12·2	5·4	69	80·8	24·8	0·000	0·5	wP
2	...	29·989	34·2	30·5	3·7	32·1	− 7·6	31·1	28·8	3·3	5·7	0·4	87	56·8	24·5	0·007	1·5	wwP
3	Greatest Declination S.	29·895	34·8	31·8	3·0	33·3	− 6·4	32·6	31·3	2·0	5·4	1·1	92	39·3	30·7	0·077	0·0	wP
4	...	29·949	35·0	32·4	2·6	33·9	− 5·9	32·7	30·6	3·3	4·6	1·1	87	41·2	31·0	0·004	0·0	wwP : wwP : wP
5	...	29·821	34·9	31·4	3·5	32·9	− 6·9	31·4	28·4	4·5	7·3	2·6	83	41·8	30·1	0·000	0·0	wP
6	...	29·364	41·0	32·7	8·3	35·4	− 4·3	33·9	31·6	3·8	6·7	2·7	86	77·2	30·4	0·000	0·0	wwP
7	...	29·273	38·3	32·5	5·8	34·5	− 4·9	32·5	29·2	5·3	8·4	2·2	80	57·3	27·6	0·007	0·0	wwP : wP : wP
8	New	29·222	37·0	32·0	5·0	34·5	− 4·6	33·6	32·2	2·3	6·2	1·3	91	40·6	27·2	0·074	1·0	wP : wP, wwN : wP
9	...	29·304	37·7	30·6	7·1	34·4	− 4·3	31·6	26·9	7·5	11·3	3·1	73	54·2	23·0	0·000	0·0	wwP : wP : mP
10	In Equator	29·412	34·7	27·1	7·6	30·8	− 7·6	29·5	26·0	4·8	7·8	3·0	81	68·7	18·5	0·000	0·0	wP
11	...	29·617	39·8	25·0	14·8	32·2	− 6·1	29·8	24·4	7·8	11·5	2·6	72	62·5	18·6	0·000	2·0	wP : mP
12	...	29·763	35·9	21·6	14·3	29·7	− 8·8	27·5	20·4	9·3	13·8	1·7	67	53·7	11·3	0·000	0·0	wP : sP
13	...	29·764	37·7	19·0	18·7	29·3	− 9·5	27·6	21·7	7·6	10·3	2·6	72	67·0	11·0	0·000	0·0	mP
14	...	29·916	33·5	27·3	6·2	30·2	− 9·0	29·3	26·6	3·6	6·9	0·0	86	46·5	15·0	0·000	0·0	wP : mP : mP
15	First Quarter	30·120	34·9	20·4	14·5	30·0	− 9·6	28·9	25·5	4·5	9·2	0·7	81	43·0	9·3	0·029	0·0	wP, mN : wP : mP
16	Perigee	30·098	34·9	14·3	20·6	26·3	−13·5	25·0	18·7	7·6	10·8	0·8	72	80·3	6·9	0·000	0·0	mP : ...
17	Greatest Declination N.	29·781	39·0	20·1	18·9	30·1	− 9·7	28·4	23·2	6·9	9·1	1·5	74	76·1	12·9	0·000	0·5	... : mP
18	...	29·871	36·1	31·5	4·6	34·0	− 5·7	32·9	31·0	3·0	4·0	1·1	88	45·9	29·7	0·000	1·5	wP : wP
19	...	29·908	35·6	32·5	3·1	34·0	− 5·6	32·3	29·3	4·7	8·4	1·4	82	45·0	30·0	0·000	0·0	wwP, wwN : wP
20	...	29·922	36·3	32·9	3·4	34·7	− 4·8	34·3	33·6	1·1	2·8	0·3	96	44·5	31·1	0·017	1·0	wP
21	...	29·899	49·9	29·3	20·6	37·7	− 1·8	36·5	34·9	2·8	9·0	0·3	90	87·5	26·8	0·004	0·5	wP
22	Full	29·768	50·2	33·3	16·9	41·2	+ 1·6	39·2	36·7	4·5	10·1	0·5	84	88·0	25·0	0·127	1·5	wP : wP : wP, wN
23	In Equator	29·621	50·3	42·7	7·6	46·0	+ 6·2	45·4	44·7	1·3	2·5	0·8	96	61·9	38·2	0·078	0·3	wwP
24	...	29·506	45·8	42·4	3·4	44·2	+ 4·3	43·1	41·8	2·4	6·4	0·0	91	55·2	41·0	0·184	0·7	wwP : wN, wwP : wwP
25	...	29·489	47·6	36·5	11·1	42·3	+ 2·3	41·3	40·1	2·2	6·7	0·0	92	80·5	30·6	0·074	0·3	wwP : wP
26	...	29·358	46·4	35·4	11·0	40·5	+ 0·4	38·9	36·9	3·6	7·6	0·7	88	90·0	29·8	0·083	2·2	wwP : wP : wP, wN
27	...	29·127	51·8	42·2	9·6	46·4	+ 6·3	44·6	42·6	3·8	8·2	0·9	87	95·0	37·0	0·010	6·2	wP : wP, wN : wP
28	...	29·328	54·1	38·9	15·2	46·7	+ 6·5	44·7	42·5	4·2	10·0	1·1	86	96·0	30·1	0·017	7·3	wwP : wwP : wP
Means	...	29·694	40·2	30·6	9·6	35·4	− 4·1	33·9	30·9	4·5	8·0	1·4	83·3	63·4	25·1	Sum 0·792	1·0	...
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 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was 29^{in}·694, being 0^{in}·105 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 54°·1 on February 28; the lowest in the month was 14°·3 on February 16; and the range was 39°·8.
The mean of all the highest daily readings in the month was 40°·2, being 5°·1 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 30°·6, being 3°·7 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 9°·6, being 1°·4 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 35°·4, being 4°·1 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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.	Least.	Mean of 24 Hourly Measures.	ROBINSON'S. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Feb. 1	5·7	9·1	NE : NNE	NNE	25·0	1·0	4·42	819	0, st.-w, ho.-fr : 0, ho.-fr,w : p.-cl, w	7, cu, th.-cl, st.-w : v, g
2	0·0	9·1	NNE : NE	NE	16·7	0·0	2·65	639	v, slt.-sn, st.-w : 10, slt.-sn, w	10, slt.-sn, sl, w : 10, slt.-sn, sl
3	0·0	9·2	NNE : N	NNE : N	2·0	0·0	0·27	312	10, oc.-sn : 10, sn	10, sn : 10, oc.-slt.-r, sn : 10, oc.-slt.-r
4	0·0	9·2	NNW : N	NNE : N	1·0	0·0	0·11	257	10, oc.-slt.-r, sl : 10 : 10, sl	10, glm : 10 : 10
5	0·0	9·3	N : Variable	E : ENE : NE	0·3	0 0	0·00	101	10 : 10	10 : 10
6	0·9	9·4	NE : N	E : NE : NNE	0·8	0·0	0·04	201	10 : 10 : 9, cu, ci.-s, th.-cl	9 : 10 : 10
7	0·2	9·4	NNE : N : NNW	NE : SE	0·8	0·0	0·01	137	10, oc.-sn : 10 : 9, cu, th.-cl	10 : 10 : 10, slt.-f
8	0·0	9·5	S : SE : E	WSW : SW	1·3	0·0	0·03	138	10 : 10 : 10, slt.-r, sn	10, glm, f : 10
9	1·1	9·5	WSW : NW : W	W : SW	1·9	0·0	0·14	282	9, ho.-fr : p.-cl, ho.-fr : 8, th.-cl, slt.-f	5, th.-cl : 0, ho.-fr
10	1·1	9·6	SW : N	N : NW : W	1·2	0·0	0·05	190	0, ho.-fr : p.-cl : 8, cu, th.-cl, so.-ha	6, cu, th.-cl : v, ho.-fr
11	6·1	9·7	WSW : SW	WSW : SW	1·6	0·0	0·06	239	p.-cl, ho.-fr : 1, th.-cl, ho.-fr : 5, th.-cl	6, cu, th. cl : 0, ho.-fr
12	0·9	9·7	SW : Variable	NNE : N	0·1	0·0	0·00	109	0, ho.-fr : 0, ho.-fr : 5, th.-cl, slt.-f	v, th.-cl : 0, f, ho.-fr
13	2·4	9·8	Variable : Calm : N	NNE : N	1·2	0·0	0·05	162	tk.-f, ho.-fr : 5, th.-cl	5, cu, th.-cl : p.-cl : v, slt.-f, ho.-fr
14	0·0	9·8	NNW : N	NNW : WSW	0·3	0·0	0·02	179	9, slt.-sn : 9 : 10	10 : 10
15	0·0	9·9	SW : N : Variable	ESE : E	0·9	0·0	0·03	160	10, slt.-sn : 10, oc.-sn	10 : p.-cl : 0, ho.-fr
16	4·8	10·0	ESE : E : Calm	E	0·7	0·0	0·02	126	0, slt.-f, ho.-fr : 3, ci.-s, th.-cl	1, li.-cl : 1, th.-cl : 0, ho.-fr, lu.-co
17	5·0	10·0	Calm : NNW : NNE	NE : NNE : N	1·1	0·0	0·05	179	0, h, slt.-f, ho.-fr : 0, ho.-fr : 2, th.-cl, slt.-f	0 : p.-cl : 10
18	0·0	10·1	N : NNE : NE	NNE : E : NE	0·8	0·0	0·02	124	10 : 10	10 : 10 : 10, m.-r
19	0·0	10·2	E : ESE : SE	ESE : ENE : NNE	0·6	0·0	0·03	154	10 : 10	10 : 10 : 10, oc.-slt.-r
20	0·0	10·2	NNE : NE : ENE	E : ENE	2·0	0·0	0·14	233	10 : 10, fq.-m.-r	10, m.-r : 10 : 10
21	2·8	10·3	ESE : E	SSE	0·2	0·0	0·00	126	10, slt.-f : 10, tk.-f : 5, th.-cl, f	5, th.-cl : th.-cl : 10
22	3·2	10·3	SSE	SSE : SE	2·1	0·0	0·13	239	8, ho.-fr : 10 : 6, th.-cl	3, cu, ci.-s, th.-cl, so.-ha : 6 : 10, c.-r
23	0·0	10·4	SSE : S	S : SSE : SE	2·4	0·0	0·16	249	10, fq.-shs : 10, fq.-shs	10, fq.-shs : 10, shs.-r
24	0·0	10·5	SE	SE : ESE	0·5	0·0	0·02	157	10, slt.-r : 10, shs.-r : 10, c.-r	10, c.-r : 10, c.-r : 10, oc.-m.-r
25	2·5	10·6	ESE : E	E	2·0	0·0	0·11	198	10, slt.-f : 10, slt.-r : 9, oc.-r	7, ci, th.-cl, so.-ha : p.-cl : p.-cl
26	3·8	10·6	NE : ENE : E	E : ESE : SE	2·3	0·0	0·22	253	10 : 10 : 9, cu, ci.-cu, th.-cl	4, ci.-s, th.-cl : 10 : 10, fq.-r
27	3·7	10·7	SSE : SW	SW	2·2	0·0	0·22	301	9, shs.-r : p.-cl : 6, cu, ci.-cu, th.-cl	7, cu, ci.-cu, th.-cl : 10, oc.-slt.-r : p.-cl
28	3·8	10·7	SW	SW : SSW	2·9	0·0	0·32	324	p.-cl : v, shs.-r : 8, cu, ci.-cu, th.-cl	8, cu, th.-cl : 0, hy.-d
Means	1·7	9·9	...	...	...	...	0·33	235		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 33°·9, being 3°·9 *lower* than
The mean *Temperature of the Dew Point* for the month was 30°·9, being 4°·7 *lower* than
The mean *Degree of Humidity* for the month was 83·3, being 2·7 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·173, being 0in·035 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·1, being 0gr·3 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 556 grains, being 3 grains *greater* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·173. The maximum daily amount of *Sunshine* was 6·1 hours on February 11.

The highest reading of the *Solar Radiation Thermometer* was 96°·0 on February 28; and the lowest reading of the *Terrestrial Radiation Thermometer* was 6°·9 on February 16.

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 0·0.

The *Proportions of Wind* referred to the cardinal points were N. 9, E. 9, S. 5, and W. 3. Two days were calm.

The *Greatest Pressure of the Wind* in the month was 25·0 lbs. on the square foot on February 1. The mean daily *Horizontal Movement of the Air* for the month was 235 miles; the greatest daily value was 819 miles on February 1; and the least daily value was 101 miles on February 5.

Rain fell on 13 days in the month, amounting to 0in·792, as measured by gauge No. 6 partly sunk below the ground; being 0in·692 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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 50 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	Apogee	29·483	53·5	35·2	18·3	43·6	+ 3·4	42·4	41·0	2·6	8·6	0·0	90	96·1	28·2	0·000	0·0	wP : wwP, wwN
2	Last Quarter	29·722	53·6	38·5	15·1	46·0	+ 5·6	43·5	40·7	5·3	10·4	0·9	83	97·0	28·9	0·049	0·5	... : wN, wP : wP
3	Greatest Declination S.	29·868	51·5	36·7	14·8	43·3	+ 2·8	41·6	39·6	3·7	9·7	0·0	87	80·0	27·1	0·000	5·0	wwP
4	...	29·902	43·8	34·9	8·9	39·5	− 1·2	39·2	38·8	0·7	2·6	0·0	98	66·0	34·9	0·002	5·5	wwP
5	...	29·930	46·6	32·2	14·4	37·0	− 3·9	36·4	35·6	1·4	5·9	0·0	95	87·0	29·5	0·000	0·0	wwP : wP : wP
6	...	29·845	48·2	29·4	18·8	36·5	− 4·6	36·0	35·3	1·2	7·1	0·0	95	57·0	27·0	0·000	0·0	wP
7	...	29·765	51·0	26·6	24·4	43·0	+ 2·0	41·6	39·9	3·1	8·0	0·0	89	64·0	24·2	0·000	0·2	wP
8	...	29·721	51·0	40·2	10·8	46·0	+ 5·1	44·3	42·4	3·6	10·1	0·0	88	68·0	39·5	0·019	0·8	... : wP : wP
9	...	29·640	54·8	45·5	9·3	50·4	+ 9·6	46·0	41·4	9·0	16·6	1·7	72	94·8	41·0	0·022	0·0	wP
10	New : In Equator	29·809	50·9	40·4	10·5	45·4	+ 4·7	44·5	43·5	1·9	4·2	0·2	93	71·1	40·4	0·038	2·2	wwP
11	...	29·861	47·8	41·3	6·5	44·8	+ 4·2	43·6	42·2	2·6	6·2	0·6	91	52·1	37·2	0·000	0·8	wwP
12	...	29·881	53·9	41·1	12·8	45·9	+ 5·2	43·0	39·7	6·2	16·0	0·0	80	95·2	36·2	0·000	0·0	wwP : wP
13	Perigee	29·890	56·9	34·3	22·6	45·6	+ 4·7	41·3	36·4	9·2	17·1	2·6	71	102·9	28·7	0·000	0·0	wP
14	...	29·755	55·8	37·3	18·5	46·2	+ 5·0	44·9	43·5	2·7	11·4	0·2	91	109·9	28·3	0·300	8·0	wP : wP : wN, wwP
15	...	29·637	52·9	40·0	12·9	47·3	+ 5·9	42·8	37·8	9·5	16·4	0·2	70	97·1	39·2	0·212	3·0	wwP, wN : wP : wP
16	Greatest Dec. N. : First Quarter	29·965	53·7	37·9	15·8	46·4	+ 4·9	42·5	38·1	8·3	17·0	3·4	74	96·0	29·3	0·000	0·0	... : wP
17	...	30·042	60·0	38·0	22·0	49·6	+ 8·0	47·1	44·4	5·2	15·6	1·5	83	96·1	29·6	0·000	1·0	wP
18	...	29·914	49·5	44·2	5·3	46·8	+ 5·2	43·9	40·6	6·2	12·2	1·8	81	71·9	34·4	0·000	6·7	wP
19	...	29·715	57·1	41·2	15·9	47·8	+ 6·3	43·7	39·2	8·6	16·3	3·3	73	114·8	33·5	0·000	12·3	wP
20	...	29·252	50·0	40·0	10·0	44·9	+ 3·5	42·2	39·0	5·9	8·4	1·5	80	83·2	33·5	0·182	6·5	wwP : vN, wP : wP
21	...	29·136	50·8	37·5	13·3	42·1	+ 0·7	39·2	35·6	6·5	12·6	2·5	79	109·7	30·0	0·034	5·7	wP : vN, vP
22	...	29·147	47·9	34·5	13·4	40·9	− 0·6	38·7	35·9	5·0	8·6	1·0	83	99·0	25·0	0·087	3·8	wP, wN : vP, vN : wP
23	In Equator	29·297	50·0	31·3	18·7	40·6	− 1·2	37·4	33·4	7·2	15·3	2·9	76	87·0	22·7	0·000	2·0	wP : wP : wP, mN
24	Full	29·280	47·9	32·6	15·3	41·0	− 1·1	38·3	34·9	6·1	12·8	1·3	79	91·5	25·2	0·143	0·0	wP : wP, wN : ...
25	...	29·366	48·0	36·3	11·7	42·8	+ 0·4	38·1	32·4	10·4	17·2	1·4	68	85·8	28·4	0·007	0·0	... : mP
26	...	29·776	47·0	33·1	13·9	40·3	− 2·6	36·7	32·1	8·2	15·4	0·9	72	87·7	24·5	0·126	3·0	wP : mP : wP, vN
27	...	29·596	59·0	38·4	20·6	49·9	+ 6·6	46·4	42·7	7·2	14·8	0·0	76	105·3	35·2	0·027	2·0	wwP : wP : wP
28	...	29·767	56·0	43·1	12·9	48·6	+ 4·9	45·8	42·8	5·8	14·6	0·2	81	93·2	30·4	0·000	0·0	wwP : wP : wP
29	Apogee	29·606	54·5	40·6	13·9	47·8	+ 3·7	45·4	42·8	5·0	10·4	1·3	84	80·6	28·4	0·097	4·0	wP : wwP, wwN : wP
30	Greatest Declination S.	29·774	43·7	36·1	7·6	41·3	− 3·3	38·8	35·7	5·6	8·3	1·1	81	69·2	24·3	0·004	0·0	wP : wwP, wN : wwP
31	...	29·689	60·5	41·7	18·8	50·6	+ 5·6	47·2	43·6	7·0	15·4	0·0	78	107·0	40·0	0·007	0·0	wwP : wP
Means	...	29·678	51·9	37·4	14·4	44·6	+ 2·9	42·0	39·1	5·5	11·8	1·0	82·0	87·6	31·1	Sum 1·356	2·4	...
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 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was 29^{in}·678, being 0^{in}·075 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 60°·5 on March 31; the lowest in the month was 26°·6 on March 7; and the range was 33°·9.
The mean of all the highest daily readings in the month was 51°·9, being 2°·2 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 37°·4, being 2°·4 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 14°·4, being 0°·3 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 44°·6, being 2°·9 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Mar. 1	0·5	10·8	Variable : NE	Variable : SE	0·1	0·0	0·00	101	p.-cl : tk.-f : 9, ci.-cu, th.-cl, slt.-f	9, slt.-f : p.-cl, glm : 1, li.-cl, slt.-f
2	2·8	10·8	SE : Variable	WSW : SW	2·5	0·0	0·03	145	p.-cl : 10, slt.-f : 8, hy.-sh, slt.-f, glm	p.-cl, oc.-shs : p.-cl, oc.-shs : 10
3	2·1	10·9	SSW : SW : WSW	WSW : SSW : SW	0·8	0·0	0·03	208	9 : 10	6, th.-cl : 1, th.-cl : 0, ho.-fr
4	0·0	11·0	SW : SE	SE : E : ENE	0·2	0·0	0·01	127	10 : 10	10 : 10, f
5	3·4	11·1	E	E	0·1	0·0	0·00	125	10, f : 10, f	5 : 0, slt.-f : tk.-f
6	0·0	11·1	Calm : Variable	NNW : NE : SW	0·0	0·0	0·00	78	tk.-f : tk.-f	10, f : tk.-f, ho.-fr
7	0·0	11·2	WSW : SW	NNW : NE	0·3	0·0	0·00	157	tk.-f, ho.-fr : 5, ho.-fr, slt.-f : 10, f, glm	10, gt.-glm : 10 : 10, slt.-f
8	0·0	11·2	Calm : SW	WNW : WSW	3·1	0·0	0·16	271	10 : 10, oc.-th.-r	10 : 10 : 10, oc.-slt.-r
9	5·4	11·3	WSW : NW	NW : NNW	7·0	0·0	0·95	450	10, w : 7, ci.-s, th.-cl, w	2, li.-cl, w : 10 : 10, slt.-r
10	0·0	11·4	Calm : NE : E	Variable : S	0·0	0·0	0·00	96	10, th.-r : 10, slt.-f	10 : 10
11	0·0	11·5	SSW : SW	SW : ESE : ENE	0·4	0·0	0·00	131	10 : 10 : 10, glm	10, glm : 10 : 10
12	0·5	11·6	E : SE	SSW	0·5	0·0	0·01	170	10 : 10 : 9, th.-cl, so.-ha	9, ci.-cu, th.-cl, so.-ha : v, th.-cl : v
13	4·0	11·6	S	SSW	1·6	0·0	0·03	228	9 : 10 : 7, ci, ci.-s, th.-cl, so.-ha	7, cu, th.-cl : th.-cl : 0, d
14	4·1	11·7	SSW : S	SSW : S	8·3	0·0	0·74	382	0, d : 0 : 3, cu, th.-cl	8, slt.-r, so.-ha : 10, sc, c.-r, w : 10, c.-r
15	5·4	11·7	SSW : WNW : W	WNW : WSW	16·0	0·0	1·65	601	10, hy.-r, hy.-sqs : 9, w : 7, cu, ci.-cu, th.-cl, w	8, cu, cl.-cu, th.-cl, w : 9, th.-cl, w : 10
16	9·1	11·8	W : WSW : NNW	NNW : SSW	2·7	0·0	0·07	258	9 : 4, cu, ci.-s, th.-cl	4, ci.-s, th.-cl : p.-cl, lu.-ha : 9, slt.-f
17	0·9	11·9	SW	SW	1·8	0·0	0·02	232	9 : 10 : 10, oc.-m.-r	8, cu, ci.-cu, th.-cl : p.-cl : 0
18	0·0	12·0	SW	SW : SSW	2·1	0·0	0·15	320	8 : 10 : 10	10 : 10
19	4·4	12·0	SSW : SW	SW	4·7	0·0	0·25	351	p.-cl : 10 : 5, ci, cu, th.-cl	9, cu : 5, th.-cl : 3, th.-cl, lu.-co
20	0·6	12·1	SW	SW	20·0	0·0	2·05	648	9, w : 10, oc.-r, w	9, hy.-r, w : p.-cl, hy.-shs, hl : 0
21	6·5	12·1	SSW : SW	SW : SSW	6·3	0·0	0·39	384	1 : 1 : 7, cu, th.-cl, oc.-shs	5, shs.-r, hl, w : 0
22	3·8	12·2	SSW : SW	WSW : SW	2·4	0·0	0·07	258	0, d : v, shs.-r, hl : 6, cu, ci.-s, th.-cl, fq.-r	10, fq.-hy.-shs, hl : 2, th.-cl : 1, li.-cl
23	5·0	12·2	S : SW	SW : WSW : NW	2·9	0·0	0·06	227	0, ho.-fr : 1, li.-cl : 8, cu, th.-cl	6, cu, li.-cl : 7, ci.-cu, ci.-s, th.-cl, lu.-co : 1, li.-cl, d, m
24	3·7	12·3	SW : SSW	S : SW	17·0	0·0	1·30	422	p.-cl, ho.-fr : 2, li.-cl : 7, so.-ha	10, sc, oc.-slt.-r, w : 10, r, w : 10, oc.-hy.-shs, st.-w
25	6·2	12·4	WSW : WNW	NW : WNW : NNW	12·5	0·0	2·48	636	10, oc.-r, w : 9, sc, st.-w	5, ci, s, th.-cl, w : 1, th.-cl, w : 0
26	2·4	12·4	WSW : SW : W	WSW : SW : S	4·2	0·0	0·46	355	0, ho.-fr : 1, li.-cl : 9, sc	10 : 10, c.-r
27	3·5	12·5	SSE : SW : WSW	WSW : W : NW	5·2	0·0	0·84	416	10, slt.-r : 10 : 9, cu, ci.-cu, th.-cl	9, li.-cl : 0
28	1·7	12·6	WSW	WNW : NW : SW	2·8	0·0	0·14	249	p.-cl : 10 : 9, th.-cl	8 : p.-cl : 0, slt.-f
29	0·1	12·7	SW : SSW	WSW : WNW : NNW	5·6	0·0	0·70	378	v : p.-cl : 9, fq.-r, so.-ha	10, oc.-slt.-r : 10, w : li.-cl, w
30	0·0	12·7	NNW : Calm : SW	WSW : SW	1·0	0·0	0·05	184	p.-cl : 10 : 10, oc.-slt.-r	10 : 10
31	3·5	12·8	SSW : SW : WSW	WSW : SW	3·0	0·0	0·37	327	10 : 10, slt.-sh : 9, so.-ha	9, th.-cl, so.-ha : 9 : 10
Means	2·6	11·8	...	...	...	...	0·42	288		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 42°·0, being 2°·7 *higher* than
The mean *Temperature of the Dew Point* for the month was 39°·1, being 2°·8 *higher* than
The mean *Degree of Humidity* for the month was 82·0, being 0·9 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·238, being 0in·024 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·7, being 0gr·2 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 545 grains, being 5 grains *less* than
} the average for the 50 years, 1841–1890.

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 0·218. The maximum daily amount of *Sunshine* was 9·1 hours on March 16.

The highest reading of the *Solar Radiation Thermometer* was 114°·8 on March 19; and the lowest reading of the *Terrestrial Radiation Thermometer* was 22°·7 on March 23.

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

The *Proportions of Wind* referred to the cardinal points were N. 2, E. 3, S. 12, and W. 12. Two days were calm.

The *Greatest Pressure of the Wind* in the month was 20·0 lbs. on the square foot on March 20. The mean daily *Horizontal Movement of the Air* for the month was 288 miles; the greatest daily value was 648 miles on March 20; and the least daily value was 78 miles on March 6.

Rain fell on 15 days in the month, amounting to 1in·356, as measured by gauge No. 6 partly sunk below the ground; being 0in·105 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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 50 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	Last Quarter	29·473	55·9	42·6	13·3	49·7	+ 4·3	46·4	42·9	6·8	11·4	3·0	78	86·6	34·0	0·000	0·0	wwP : wP
2	...	29·648	50·0	37·7	12·3	44·4	− 1·3	39·4	33·5	10·9	15·5	5·5	65	100·7	25·0	0·000	0·0	wP : mP : mP
3	...	29·616	53·1	35·5	17·6	44·4	− 1·6	39·4	33·5	10·9	18·0	2·5	65	101·2	26·4	0·040	0·0	wP : wP : vP, vN
4	...	29·729	52·5	34·5	18·0	44·1	− 2·1	38·8	32·6	11·5	17·2	3·0	63	113·5	28·0	0·000	0·5	wP : mP : mP
5	...	29·675	52·0	38·2	13·8	45·1	− 1·1	43·0	40·6	4·5	7·3	2·7	84	87·9	30·2	0·104	3·0	wP : wwP, wwN : wwP, wwN
6	In Equator	29·868	48·5	35·8	12·7	40·7	− 5·5	37·0	32·3	8·4	14·2	2·9	72	113·1	23·6	0·000	6·5	wwP, wwN : wP : vP
7	...	30·148	45·7	30·9	14·8	39·8	− 6·3	36·1	31·3	8·5	12·5	2·8	72	87·1	17·8	0·000	0·0	wP : mP : wP
8	New	30·058	44·6	34·7	9·9	40·0	− 5·9	35·8	30·3	9·7	12·3	5·2	68	85·1	22·1	0·000	0·0	wP : wP : mP
9	...	29·974	47·9	34·3	13·6	40·5	− 5·1	36·4	31·2	9·3	13·2	5·5	69	103·1	21·2	0·000	0·0	wP
10	Perigee	29·900	46·9	35·4	11·5	40·4	− 5·1	36·9	32·4	8·0	11·2	4·0	73	88·4	26·9	0·000	0·0	wP : mP : mP
11	...	29·685	47·6	35·5	12·1	41·7	− 3·8	39·4	36·5	5·2	10·3	1·4	83	84·4	27·1	0·064	0·0	wP : wP, wwN : wP, wN
12	Greatest Declination N.	29·606	52·3	40·2	12·1	44·9	− 0·8	43·5	41·9	3·0	7·4	0·5	90	112·2	29·1	0·026	0·0	wwP : wP, wN : wP
13	...	29·762	60·5	37·4	23·1	45·8	− 0·2	41·3	36·2	9·6	19·4	0·7	70	97·0	27·8	0·000	0·0	wP : wP : mP
14	...	29·763	55·0	32·1	22·9	45·0	− 1·4	40·2	34·6	10·4	20·6	1·3	67	123·9	20·3	0·000	0·0	wP, wwN : wP : wP
15	First Quarter	29·516	61·4	44·7	16·7	50·8	+ 3·9	49·2	47·5	3·3	9·7	0·6	89	93·3	40·6	0·038	2·0	wP, wN : wwP : wP
16	...	29·687	58·0	43·9	14·1	51·3	+ 4·0	47·1	42·7	8·6	15·4	1·5	73	82·4	34·4	0·000	0·0	wP : mP : wP
17	...	29·766	60·5	40·2	20·3	50·9	+ 3·2	47·1	43·1	7·8	17·7	1·1	75	92·0	28·3	0·000	0·0	wP
18	...	29·846	60·0	37·9	22·1	49·7	+ 1·6	46·6	43·3	6·4	12·9	1·8	79	106·3	28·5	0·000	2·0	wP
19	In Equator	29·728	68·2	38·3	29·9	55·2	+ 6·9	50·7	46·4	8·8	22·0	1·4	73	142·2	28·9	0·080	0·0	wP : wwP, wwN : vP, vN
20	...	29·778	63·0	44·8	18·2	53·3	+ 4·8	50·7	48·1	5·2	14·4	2·1	82	123·8	35·0	0·001	0·3	wP
21	...	29·850	62·0	46·2	15·8	54·0	+ 5·5	50·0	46·1	7·9	13·7	1·9	74	104·8	37·7	0·000	2·7	wP
22	Full	29·495	58·2	45·8	12·4	53·7	+ 5·2	50·0	46·4	7·3	10·6	1·8	76	86·1	37·0	0·061	6·0	wwP, wwN : wP
23	...	29·664	62·2	42·5	19·7	50·3	+ 1·9	46·6	42·7	7·6	17·5	1·5	76	133·3	30·2	0·000	1·0	wP : ... : wP
24	...	29·912	65·0	40·3	24·7	53·6	+ 5·2	48·3	43·1	10·5	20·7	0·2	67	128·6	28·4	0·000	0·0	wP
25	...	29·881	65·7	38·2	27·5	53·2	+ 4·8	45·9	38·6	14·6	27·0	2·9	58	132·6	25·9	0·000	1·2	wP
26	Apogee : Greatest Declination S.	29·716	56·0	42·3	13·7	47·7	− 0·7	44·9	41·9	5·8	12·2	3·5	81	118·5	34·1	0·000	6·8	wP : wP, wwN : mP
27	...	29·791	56·0	42·4	13·6	48·3	− 0·2	43·6	38·5	9·8	19·6	4·8	69	124·1	32·5	0·000	5·0	wP : wwP, wN : wP
28	...	29·944	52·6	37·3	15·3	45·2	− 3·4	39·3	32·5	12·7	21·0	6·0	61	120·2	27·0	0·000	0·5	wP : mP : mP
29	...	30·023	51·7	35·3	16·4	44·8	− 4·0	40·2	34·9	9·9	15·0	3·4	68	97·3	24·4	0·000	1·5	mP : mP : sP
30	Last Quarter	29·812	55·4	41·1	14·3	48·6	− 0·4	44·1	39·2	9·4	15·2	5·3	70	101·0	32·0	0·002	0·0	wP : mP : mP
Means	...	29·777	55·6	38·9	16·7	47·2	+ 0·1	43·3	38·8	8·4	15·2	2·7	73·0	105·7	28·8	Sum 0·416	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 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was 29^{in}·777, being 0^{in}·036 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 68°·2 on April 19; the lowest in the month was 30°·9 on April 7; and the range was 37°·3.
The mean of all the highest daily readings in the month was 55°·6, being 1°·6 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 38°·9, being *the same as* the average for the 50 years, 1841–1890.
The mean of the daily ranges was 16°·7, being 1°·6 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 47°·2, being 0°·1 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1902.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	Osler's. General Direction. P.M.	Osler's. Pressure on the Square Foot. Greatest.	Least.	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.	lbs.	miles.		
Apr. 1	0·5	12·8	SW : WSW	WSW : NNW : NW	3·8	0·0	0·57	264	10 : 10	10 : 10, oc.-slt.-r : li.-cl
2	5·1	12·9	NW : NNW : N	N : S	1·1	0·0	0·05	178	o, ho.-fr : o : 4, cu, th.-cl, so.-ha	8, th.-cl, so.-ha : 10 : 10
3	3·6	13·0	SSW : S	SW : WSW	8·1	0·0	0·70	332	9 : 9, th.-cl, so.-ha	8, cu, ci.-cu, th.-cl, so.-ha : p.-cl, shs.-r : v, shs.-r, w
4	10·1	13·1	WSW : SW	W : WSW	9·2	0·0	1·70	566	v, w : 4, cu, ci.-cu, th.-cl, w	5, ci, cu, th.-cl, w : p.-cl, so.-ha, prh, w : 10
5	1·1	13·1	SW : SSW	SW : NW	5·7	0·0	0·81	395	9 : 10 : 10, fq.-r, sc	9, sc, oc.-r, w : 10, oc.-r, w
6	8·0	13·2	NNW : N	N : NNE	6·6	0·0	1·76	470	p.-cl, w : 8, cu, li.-cl, w	p.-cl : 1
7	0·3	13·2	N : NNE : NE	NE : ENE	0·6	0·0	0·01	148	o, ho.-fr : 9 : 10	10 : 10
8	0·6	13·3	SE : ESE	ESE : E	0·5	0·0	0·00	133	10 : 10	9 : th.-cl : o
9	1·9	13·4	NE : ENE	NE : ENE : NNE	4·4	0·0	0·69	366	p.-cl : 10 : 9, cu, ci.-cu, th.-cl	9, cu, ci.-cu, ci.-s, th.-cl : 9, li.-cl, w
10	0·7	13·4	NNE	NE : NNE	5·1	0·0	1·21	479	9 : 10, sc	9, cu, li.-cl, w : v
11	0·1	13·5	NNE	E : NE : NNE	3·9	0·0	0·51	349	9 : p.-cl : 8, ci.-s, th.-cl	10, oc.-r : 10, fq.-r
12	1·0	13·5	NNE : Calm : S	Variable : Calm	0·4	0·0	0·00	95	10, oc.-slt.-r : 10, oc.-slt.-r	9, oc.-slt.-r : 10 : o, f, d
13	8·8	13·6	WSW : NW	WSW : Variable	0·5	0·0	0·01	160	o, m, ho.-fr : 4, th.-cl, h	o : 2, th.-cl, f : o, slt.-f
14	5·6	13·7	Variable : Calm : E	E : NE	4·3	0·0	0·52	261	p.-cl, f, ho.-fr : 7, ci, ci.-s, th.-cl, so.-ha	6, ci.-s, li.-cl : 10
15	1·5	13·8	NE : E	S : SW	4·3	0·0	0·39	298	10 : 10, oc.-th.-r : 10	10, oc.-slt.-r : 9 : 10, f
16	0·0	13·8	WSW : W : NW	NW : NNW : N	1·9	0·0	0·05	142	9 : 9, h, so.-ha, glm	10 : 9 : 9, slt.-f
17	0·3	13·9	Variable : SW	Variable : W : NNW	0·8	0·0	0·03	139	p.-cl, h, f : 9, slt.-f, glm	10 : p.-cl : p.-cl
18	4·7	13·9	Variable : E	E : SSW : SE	0·5	0·0	0·02	141	v, ho.-fr : p.-cl : 1, ci.-s, th.-cl	4, ci.-cu, th.-cl : 4 : o, hy.-d
19	5·0	14·0	SE : SSE	S : SSW	8·0	0·0	0·53	288	1, hy.-d : p.-cl : 7, cu, ci.-s	6, cu, ci.-cu, th.-cl, w : v, hy.-sh
20	4·1	14·1	S : SSW	SSW	7·2	0·0	0·83	373	p.-cl : 7, cu, th.-cl, w	5, cu, th.-cl, slt.-sh, w : th.-cl : th.-cl
21	2·0	14·1	SSW : SW	SSW : SSE : SE	5·6	0·0	0·55	363	p.-cl : li.-cl : 9, sc, cu, ci.-cu, th.-cl	9, cu, ci.-cu, ci.-s, so.-ha : 9, lu.-ha
22	0·5	14·2	SSE	SW : SSW	7·7	0·0	1·10	410	9, shs.-r, w : 10, c.-r, w	10, sc, slt.-r : p.-cl, so.-ha : v, d
23	8·8	14·2	SSW : S	SSW : SSE	5·7	0·0	0·44	290	1, li.-cl, d : p.-cl : 6, cu, th.-cl, sh.-r	6, cu, th.-cl : p.-cl : 1, li.-cl, d
24	9·3	14·3	SSE : Calm : SW	SW	0·8	0·0	0·02	162	li.-cl, hy.-d : 3, cu, li.-cl	6, cu, th.-cl : o
25	7·7	14·4	SW : Calm : SE	SE : E : ENE	4·1	0·0	0·32	238	1, th.-cl, ho.-fr : 5, cu, th.-cl	6, cu, th.-cl : 8, th.-cl, so.-ha : 9, th.-cl, lu.-ha
26	3·8	14·4	ENE	ENE : NE : NNE	10·1	0·0	1·65	517	9 : 10, sc, w : 9, sc, w	9, w : 9, w
27	12·9	14·5	NE : ENE	ENE	27·3	0·0	2·80	667	9 : 3, ci, ci.-s, th.-cl, w	1, th.-cl, st.-w : 1, st.-w : 1, w
28	13·0	14·5	ENE : NE	ENE : NE	13·9	0·0	1·83	539	1 : 1, th.-cl, w	o, w : o
29	3·9	14·6	NE : NNE	N : SW	4·0	0·0	0·38	288	o : li.-cl : 8, cu, ci.-cu, th.-cl, oc.-slt.-r	10 : 10
30	1·4	14·7	WSW : SW : W	W : NW	3·0	0·0	0·23	289	9 : 8, cu, ci.-cu, th.-cl	10 : 10, slt.-sh : 9
Means	4·2	13·8	...	...	...	...	0·66	315		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 43°·3, being 0°·6 *lower* than
The mean *Temperature of the Dew Point* for the month was 38°·8, being 1°·4 *lower* than
The mean *Degree of Humidity* for the month was 73·0, being 3·6 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·236, being 0in·013 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·7, being 0gr·2 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 544 grains, being 1 grain *greater* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7·1.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·306. The maximum daily amount of *Sunshine* was 13·0 hours on April 28.

The highest reading of the *Solar Radiation Thermometer* was 142°·2 on April 19; and the lowest reading of the *Terrestrial Radiation Thermometer* was 17°·8 on April 7.

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

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

The *Greatest Pressure of the Wind* in the month was 27·3 lbs. on the square foot on April 27. The mean daily *Horizontal Movement of the Air* for the month was 315 miles; the greatest daily value was 667 miles on April 27; and the least daily value was 95 miles on April 12.

Rain fell on 7 days in the month, amounting to 0in·416, as measured by gauge No. 6 partly sunk below the ground; being 1in·245 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 902.	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 50 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	...	29·573	56·0	37·6	18·4	48·3	− 0·9	43·5	38·2	10·1	19·8	4·0	68	119·5	29·0	0·025	2·7	wP, sN : mP : mP
2	...	29·585	57·3	33·9	23·4	46·6	− 2·8	43·7	40·4	6·2	14·3	2·3	80	98·0	27·0	0·164	6·8	mP : vP, sN
3	...	29·459	56·4	40·5	15·9	46·0	− 3·7	43·6	40·9	5·1	14·0	1·8	83	113·3	32·7	0·315	12·5	wP : vP, ssN
4	In Equator	29·736	53·9	38·4	15·5	44·6	− 5·4	42·0	38·9	5·7	16·4	1·4	80	115·0	27·4	0·019	0·0	wP : wP, vN : wP
5	...	29·911	52·7	36·2	16·5	42·5	− 7·8	39·6	36·1	6·4	13·4	1·4	79	107·0	25·4	0·063	0·5	wP, vN : mP, sN : mP, wN
6	...	30·020	49·2	34·5	14·7	41·4	− 9·2	38·0	33·8	7·6	16·6	1·0	75	108·9	23·0	0·006	2·5	vP, ssN : vP, ssN : mP
7	New	30·029	52·0	35·2	16·8	40·3	−10·5	38·9	37·1	3·2	8·8	0·7	89	116·0	25·2	0·605	1·0	mP : ssP, ssN : vP, ssN
8	Perigee	30·049	50·9	38·5	12·4	43·1	− 7·9	40·5	37·4	5·7	9·0	1·6	80	126·2	24·8	0·153	0·0	wP : vP, ssN : mP
9	...	30·013	51·6	37·0	14·6	42·6	− 8·6	39·2	35·1	7·5	14·4	2·4	75	119·2	27·1	0·007	0·5	mP : vP, vN : mP
10	Greatest Declination N.	29·958	52·0	34·3	17·7	42·5	− 9·0	39·0	34·8	7·7	14·3	0·8	75	114·8	24·8	0·000	7·5	mP
11	...	29·826	50·7	37·5	13·2	45·2	− 6·5	40·8	35·8	9·4	16·2	0·7	70	108·2	24·9	0·000	0·0	mP
12	...	29·713	53·7	39·4	14·3	44·7	− 7·3	42·3	39·5	5·2	14·8	0·7	82	104·8	27·0	0·139	2·7	wP : vP, ssN : mP, ssN
13	...	29·773	48·9	35·4	13·5	41·1	−11·2	38·5	35·2	5·9	12·8	1·7	80	104·0	24·0	0·002	2·3	mP
14	First Quarter	29·740	52·0	29·8	22·2	40·5	−12·1	37·7	34·2	6·3	17·0	0·0	79	106·9	22·6	0·032	0·0	mP : mP : vP, vN
15	...	29·577	55·0	33·0	22·0	46·0	− 6·8	44·1	41·9	4·1	7·2	0·3	87	92·0	25·3	0·059	5·0	wP, vN : wP
16	In Equator	29·428	55·5	48·2	7·3	50·9	− 2·2	48·7	46·4	4·5	11·0	1·0	86	87·2	41·2	0·100	3·7	wP : ...
17	...	29·249	58·3	43·0	15·3	50·3	− 3·0	46·6	42·7	7·6	14·3	2·0	76	112·4	37·5	0·509	6·3	... : vP, ssN
18	...	29·322	55·8	42·2	13·6	46·2	− 7·4	43·8	41·1	5·1	17·8	1·3	83	111·0	36·0	0·149	0·0	wP, vN : vP, ssN
19	...	29·656	53·1	40·9	12·2	46·0	− 7·9	42·4	38·3	7·7	13·7	2·4	75	114·0	35·3	0·083	1·2	wwP, vN : vP, vN : wP, ssN
20	...	29·862	48·0	40·2	7·8	44·5	− 9·7	41·4	37·8	6·7	12·0	4·6	77	102·0	31·7	0·001	3·8	wP : mP : sP
21	...	30·104	55·0	41·8	13·2	47·2	− 7·4	43·3	38·9	8·3	16·6	3·7	74	110·7	35·7	0·000	0·0	mP : mP : wP
22	Full	30·123	56·0	40·5	15·5	49·3	− 5·7	46·5	43·5	5·8	15·8	0·0	81	79·7	33·4	0·201	0·0	wP
23	Apogee	30·103	61·1	51·1	10·0	55·6	+ 0·3	53·7	51·9	3·7	6·8	0·0	88	106·5	46·8	0·136	0·0	wwP
24	Greatest Declination S.	30·229	67·9	50·1	17·8	59·1	+ 3·5	55·2	51·7	7·4	14·2	0·6	77	118·7	42·3	0·000	0·0	wwP
25	...	30·253	67·1	49·7	17·4	58·5	+ 2·8	51·8	45·8	12·7	19·4	2·4	63	116·4	39·1	0·000	0·0	wwP
26	...	30·146	67·9	44·0	23·9	58·0	+ 2·1	50·2	43·2	14·8	21·4	5·0	58	119·0	34·3	0·000	0·0	wP
27	...	29·881	70·1	48·6	21·5	59·5	+ 3·5	53·6	48·4	11·1	19·8	3·1	67	140·2	40·0	0·000	0·0	wP : wwP : wP
28	...	29·595	68·2	47·4	20·8	56·1	+ 0·1	52·1	48·3	7·8	18·2	1·7	75	131·0	40·2	0·008	2·0	wP
29	...	29·646	63·7	47·9	15·8	54·2	− 2·0	49·2	44·3	9·9	20·5	1·6	69	124·5	45·9	0·133	4·0	wP : wP : wP, wN
30	Last Quarter	29·512	66·2	47·1	19·1	55·6	− 0·9	53·9	52·3	3·3	6·8	0·4	89	119·1	45·3	0·408	4·0	wP, wN : wP : vP, vN
31	In Equator	29·531	71·0	54·5	16·5	62·2	+ 5·4	59·0	56·2	6·0	15·1	0·6	81	129·5	48·6	0·014	11·0	wwP : wwP : wwP, mN
Means	...	29·794	57·3	41·2	16·1	48·7	− 4·5	45·3	41·6	7·0	14·6	1·7	77·5	112·1	33·0	Sum 3·331	2·6	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was 29^{in}·794, being 0^{in}·008 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 71°·0 on May 31; the lowest in the month was 29°·8 on May 14; and the range was 41°·2.
The mean of all the highest daily readings in the month was 57°·3, being 6°·8 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 41°·2, being 2°·5 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 16°·1, being 4°·3 *lower* than the average for the 50 years, 1841–1890.
The mean for the month was 48°·7, being 4°·5 *lower* the average for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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.	Least.	Mean of 24 Hourly Measures.	ROBINSON'S. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
May 1	7·8	14·8	WSW : NW	NW : N : SW	5·9	0·0	1·02	405	9 : 9, sh.-r, w: 8, cu, th.-cl, w	8, cu, slt.-sh, w : 6, th.-cl : 0
2	0·4	14·8	SW : SSW	WSW : SW	14·6	0·0	0·35	284	p.-cl : 10, shs.-r : 10, oc.-shs.-r	10, oc.-shs.-r : v, shs.-r, so.-ha, sq : v, th.-cl
3	6·0	14·9	SW	SW : WSW	10·1	0·0	0·72	383	1, th.-cl : p.-cl : 8, cu, n, shs.-r	9, t -sm, hy.-r, hl, st.-w : v, shs.-r, w : p.-cl
4	3·6	14·9	WSW : NNW	NNW : NE : N	2·3	0·0	0·12	218	p.-cl : 9 : 10, slt.-sh	8 : 2, th.-cl, d
5	4·8	15·0	SW : WSW : NNW	NNW : N	8·1	0·0	0·58	319	p.-cl : 9, shs.-r : 8, hy.-sh, glm, w	8, cu, th.-cl, w cl.-cu, : p.-cl, oc.-th.-r, w : p.-cl
6	5·0	15·0	WSW : NNW	N : NNW	6·0	0·0	0·22	244	p.-cl, ho.-fr : p.-cl, sh.-r: 9, cu, cu.-s, cl.-cu, shs.-r	v, cu, ci.-cu : 10, shs.-r, sn : 10, sh.-r
7	2·4	15·1	NNW : N	NNW : Variable	6·0	0·0	0·21	231	9 : 8 : 8, cu, ci.-cu, ci.-s, fq.-r	v, t.-sm, hy.-shs, hl, sqs : v, oc.-hy.-shs : 3, th.-cl
8	4·5	15·1	NNW : N	NE : NNE : N	5·9	0·0	0·41	289	10 : 10 : 10, shs.-r	v, fq.-hy.-shs, hl, l, t : v, shs.-r, w : 0
9	6·6	15·2	N : NNW	N : NNE : ENE	3·7	0·0	0·25	254	0, ho.-fr : 9 : 9, cu, th.-cl, sh.-r	8, cu, th.-cl, oc.-shs.-r : p.-cl
10	5·6	15·2	NNW : N	N : ENE : SE	2·5	0·0	0·17	223	p.-cl, ho.-fr : 8, cu, ci.-cu, th.-cl	9, cu, th.-cl : 9 : p.-cl, ho.-fr
11	2·5	15·3	Calm : NNW : N	SW : SSW	0·4	0·0	0·00	97	p.-cl, ho.-fr : v : 8, cu, th-cl, h	10 : 10
12	3·3	15·3	SSW	N	4·1	0·0	0·12	175	10 : 10, th.-r : 10, c.-r, gt.-glm	9, cu, th.-cl : p.-cl, sh.-r : 0, d
13	3·2	15·4	NNW	N	1·5	0·0	0·07	175	0, ho,-fr : 0 : 9, cu, th.-cl, oc.-slt.-r	v, shs.-r : p.-cl : r, th.-cl, h, ho.-fr, slt.-f
14	6·8	15·5	SW : W	Variable : S	2·9	0·0	0·07	170	0, ho.-fr, f: 0 : 6, cu, th.-cl, h cl.-cu,	8, oc.-shs : 10, sh.-r : li -cl, ho.-fr, slt.-f
15	0·3	15·5	S : SSW	SSW : SW	3·2	0·0	0·12	247	p.-cl, slt.-f, ho.-fr : 10, th.-r : 10, c.-r	9, cu, th.-cl, fq.-r : 10, oc.-slt.-r : 10, oc.-slt.-r
16	0·9	15·5	WSW : W : NW	SW : WSW	4·7	0·0	0·52	376	10, oc.-th.-r : p.-cl : 10	10, slt.-r : 10, w : 9
17	4·7	15·6	WSW	WSW : SW	7·2	0·0	1·11	485	9, sh.-r, w: p.-cl, w : 8, cu, cl.-cu, th.-cl, w	v, fq.-hy.-shs, hl, w : v, hy.-r, w : p.-cl, slt.-sh
18	6·0	15·7	SW : NW	NW : WSW : NNW	6·7	0·0	0·88	403	10, shs.-r : 10, r, w : 8, cu, th.-cl, w	p.-cl, oc.-hy.-shs, hl, w : p.-cl : 10, sh.-r
19	4·5	15·7	NNW	NNW : NW	10·0	0·0	0·93	427	9, li.-shs : v, li.-shs : 8, sc, cu, cu.-s, cl.-s, fq.-shs.-r, hl	8, cu, cu.-s, shs.-r, so.-ha : 8, cu.-s, th.-cl : 9
20	3·5	15·7	NNW : NW	NNW : N	4·3	0·0	0·58	361	9 : p.-cl : 9, cu, oc.-shs th.-cl,	10, sc, oc.-slt.-r : p.-cl : 9
21	6·3	15·8	NNW : N	N : NE : SE	2·6	0·0	0·20	255	9 : 2, li.-cl : 5, cu, th.-cl	7, cu, th.-cl : 9
22	0·0	15·8	S : SW : WSW	WSW : SW	1·7	0·0	0·12	257	9 : 9, th.-cl, so.-ha	10, fq.-th.-r : 10, c.-r : 10, slt.-r
23	0·1	15·8	W : NNW : NE	NNW : SW : NW	0·8	0·0	0·01	139	10, slt.-r : 10, slt.-r : 10	10 : 10 : 9, m
24	10·2	15·9	WSW : NNW : NW	NW : N	1·8	0·0	0·09	202	v : li.-cl : 6, cu, ci.-cu, th.-cl	6, ci.-cu, ci.-s, th.-cl : v, hy.-d
25	10·8	16·0	WSW : NNW	NNW : N	1·5	0·0	0·08	219	v, d : 8, cu, ci.-cu, th.-cl	8, ci.-cu, ci.-s, th.-cl : p.-cl
26	12·3	16·0	N : Variable : NNW	W : WSW	1·2	0·0	0·09	194	9 : p.-cl : 6, cu, ci.-cu, li.-cl	6, ci.-cu, th.-cl : 2, th.-cl : li.-cl, d
27	12·8	16·0	SW : WSW	SW	2·7	0·0	0·27	293	p.-cl : 0 : 3, cu, th.-cl	5, cu, th.-cl : 0 : 0
28	8·0	16·1	SSW : SW	SW : WSW	3·5	0·0	0·41	350	0, d : 0 : 5, cu, ci,-cu, th.-cl	9, cu, ci.-cu, oc.-slt.-r : 10, fq.-th.-r : 10, oc.-r
29	4·4	16·1	WSW : SW	Variable : S : E	1·3	0·0	0·03	176	9 : p.-cl : 8, cu, ci.-cu, th.-cl	10 : 10, c.-r : 10, slt.-r
30	0·4	16·2	ENE : NE : NNE	ESE : SE : ENE	1·4	0·0	0·05	152	10, fq.-r : 10, oc.-slt.-r: 10, fq.-m.-r	10 : 10, hy.-r : 9, l
31	4·1	16·2	SE : ESE	SE : ENE	3·7	0·0	0·16	233	9 : 9, slt.-sh : 8, cu, ci.-cu, th.-cl	7, cu, ci.-cu, ci -s : p.-cl, so.-ha : 10, oc.-slt.-r, l
Means	4·9	15·5	...	...	...	...	0·32	266		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 45°·3, being 3°·9 *lower* than
The mean *Temperature of the Dew Point* for the month was 41°·6, being 3°·7 *lower* than
The mean *Degree of Humidity* for the month was 77·5, being 2·5 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·263, being 0in·040 *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 543 grains, being 5 grains *greater* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7·9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·316. The maximum daily amount of *Sunshine* was 12·8 hours on May 27.

The highest reading of the *Solar Radiation Thermometer* was 140°·2 on May 27 ; and the lowest reading of the *Terrestrial Radiation Thermometer* was 22°·6 on May 14.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 1·0 ; for the 6 hours ending 15h was 1·2 ; and for the 6 hours ending 21h was 0·4.

The *Proportions of Wind* referred to the cardinal points were N. 12, E. 2, S. 6, and W. 10. One day was calm.

The *Greatest Pressure of the Wind* in the month was 14·6 lbs. on the square foot on May 2. The mean daily *Horizontal Movement of the Air* for the month was 266 miles ; the greatest daily value was 485 miles on May 17 ; and the least daily value was 97 miles on May 11.

Rain fell on 22 days in the month, amounting to 3in·331, as measured by gauge No. 6 partly sunk below the ground ; being 1in·328 *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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 50 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	...	29·594	73·9	53·1	20·8	62·9	+ 5·7	59·4	56·4	6·5	17·0	1·9	80	132·0	49·3	0·049	2·3	wwP : wwP : wP, wwN
2	...	29·908	70·6	51·2	19·4	58·6	+ 0·9	54·5	50·8	7·8	20·2	2·4	75	139·0	44·4	0·000	13·7	wwP : wwP : wP
3	...	29·909	77·1	49·4	27 7	63·8	+ 5·8	58·3	53·7	10·1	17·5	1·0	70	131·7	40·8	0·289	7·0	vP, vN : wP : wP
4	...	29·893	63·7	53·9	9·8	57·6	− 0·6	54·9	52·5	5·1	11·0	1·6	83	108·8	48·2	0·337	1·5	vP, sN : wP, wwN : wP
5	...	29·894	66·0	52·1	13·9	57·5	− 0·8	52·6	48·1	9·4	16·7	1·2	71	143·0	41·2	0·000	11·2	wwP : wwP : wP
6	Perigee : New : Greatest Dec. N.	29·683	59·0	49·1	9·9	54·4	− 3·9	52·4	50·4	4·0	7·8	1·9	86	94·4	36·8	0·195	12·0	wP : wwP, wwN : wP
7	...	29·372	61·0	46·6	14·4	51·4	− 6·8	47·5	43·5	7·9	15·6	1·9	75	126·3	43·1	0·057	2·3	wwP : ... : wP
8	...	29·480	57·4	46·1	11·3	50·4	− 7·8	47·6	44·7	5·7	12·9	2·8	81	95·0	42·8	0·057	0·0	wP : wP : wP, wN
9	...	29·612	56·0	44·2	11·8	48·5	− 9·7	45·6	42·5	6·0	12·8	4·0	80	121·1	39·3	0·002	4·0	... : mP, wN : mP
10	...	29·669	58·1	41·1	17·0	48·0	−10·2	43·8	39·2	8·8	19·0	2·6	72	142·8	29·8	0·000	0·0	mP : mP : wP
11	...	29·632	61·6	42·2	19·4	51·9	− 6·5	46·4	40·8	11·1	19·2	2·8	66	120·8	32·5	0·000	1·7	wP
12	First Quarter	29·387	56·1	48·2	7·9	52·8	− 5·8	50·0	47·2	5·6	12·2	1·4	81	91·4	42·5	0·067	11·3	wP : wN
13	In Equator	29·282	54·8	47·6	7·2	52·2	− 6·6	51·2	50·2	2·0	2·8	0·2	93	79·9	44·8	0·890	0·0	mN, wP : wP, wN : wP, vN
14	...	29·540	55·0	46·7	8·3	49·6	− 9·3	48·2	46·7	2·9	5·8	0·2	90	76·0	44·0	0·512	2·5	mN, wwP : vP, vN : wP, vN
15	...	29·544	60·2	46·5	13·7	50·4	− 8·6	47·1	43·6	6·8	12·0	0·2	78	117·4	43·0	0·082	2·0	wN, wwP : wwP : wP, wN
16	...	29·573	61·0	47·5	13·5	51·6	− 7·4	49·7	47·8	3·8	13·9	0·6	87	117·7	41·5	0·016	1·5	wP : vP, mN : wP
17	...	29·800	61·7	44·6	17·1	53·5	− 5·6	50·2	46·9	6·6	12·4	0·4	78	125·9	36·1	0·000	0·0	wP : mP, wN : wP
18	...	29·950	63·2	47·2	16·0	54·9	− 4·3	52·2	49·6	5·3	13·0	0·8	82	137·0	35·3	0·000	9·0	wP
19	Apogee	29·657	72·8	44·9	27·9	60·4	+ 0·9	55·8	51·8	8·6	21·1	0·0	73	135·0	32·9	0·000	3·0	wP : wwP : wP
20	Greatest Declination S.	29·454	63·4	50·8	12·6	58·0	− 1·9	55·6	53·4	4·6	9·5	1·9	85	86·1	40·1	0·093	7·0	wP : wP, wN : wP
21	Full	29·731	71·3	50·9	20·4	58·8	− 1·5	55·7	52·9	5·9	16·0	1·4	81	147·3	40·2	0·192	10·0	wP : wP, mN : wP
22	...	29·983	70·3	50·0	20·3	58·8	− 1·9	55·0	51·6	7·2	15·8	0·6	77	133·9	40·2	0·004	4·0	wP : wwP : wP
23	...	30·025	74·1	54·2	19·9	63·4	+ 2·4	58·1	53·7	9·7	18·5	3·4	71	129·0	48·2	0·000	1·0	wP : wP : mP
24	...	30·084	79·3	53·7	25·6	67·8	+ 6·6	61·4	56·4	11·4	23·0	0·4	66	134·6	43·9	0·000	0·0	wP
25	...	30·060	69·0	55·2	13·8	62·1	+ 0·8	56·8	52·2	9·9	16·6	1·7	71	137·0	45·0	0·000	12·5	wP
26	...	29·990	72·6	53·6	19·0	63·4	+ 2·0	56·5	50·7	12·7	24·0	0·8	63	137·8	42·8	0·000	1·5	wP : wP, wN : wP
27	In Equator	30·026	77·0	52·3	24·7	65·6	+ 4·2	58·5	52·7	12·9	29·2	2·0	63	142·8	38·7	0·000	0·0	wP
28	Last Quarter	29·935	80·0	54·0	26·0	67·9	+ 6·6	60·8	55·2	12·7	27·2	2·3	64	153·0	40·2	0·000	0·0	wP : wwP : wP
29	...	29·833	80·6	57·2	23·4	66·3	+ 5·1	60·7	56·2	10·1	23·5	1·3	70	137·7	37·9	0·033	0·0	wP : wP, wN : mP
30	...	29·804	80·7	53·0	27·7	65·5	+ 4·3	60·0	55·5	10·0	26·9	0·0	71	156·1	43·4	0·220	7·7	wP : wwP : vP, ssN
Means	...	29·743	66·9	49·6	17·3	57·6	− 1·8	53·6	49·9	7·7	16·4	1·5	76·1	124·3	41·0	Sum 3·095	4·3	...
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 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was 29in·743, being 0in·068 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 80°·7 on June 30; the lowest in the month was 41°·1 on June 10; and the range was 39°·6.
The mean of all the highest daily readings in the month was 66°·9, being 4°·0 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 49°·6, being 0°·3 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 17°·3, being 3°·7 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 57°·6, being 1°·8 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
June 1	6·0	16·2	ENE : E	E : SE : SSW	5·0	0·0	0·39	297	9, li.-shs, w: p.-cl : 6, cu, cu.-s, ci.-s	p.-cl : p.-cl, shs.-r : 10, shs.-r
2	7·9	16·2	S : SE	SE : E	1·0	0·0	0·03	160	9 : 7, cu, th.-cl	3, cu, th.-cl, so.-ha : 1, s, th.-cl
3	9·7	16·3	E : ENE	WSW : W	1·4	0·0	0·05	181	p.-cl : 10, hy.-r : 6, ci.-cu, th.-cl	3, cu, ci.-cu th.-cl : th.-cl : th.-cl, l
4	0·2	16·3	W : WSW	WSW : SW	2·3	0·0	0·17	276	10 : 10, t.-sm, hy.-r : 10, oc.-r	10, r : 8, ci.-cu, th.-cl : 10
5	3·4	16·3	WSW : SW	WSW : SW	3·6	0·0	0·40	339	10 : 10 : 9, cu	9, sc : 5 : 1, li.-cl
6	0·1	16·4	WSW : SW	SW : WSW	3·7	0·0	0·42	368	p.-cl : 8, shs.-r : 9, sc, fq.-r	10, sc, fq.-r : 10, fq.-r : 9
7	5·8	16·4	WSW : W	SW : NNW	4·8	0·0	0·41	330	p.-cl : li.-cl : 8, cu, ci.-s, shs.-r	10, fq.-r, t.-sm : 8, cu, ci.-cu : 10
8	1·1	16·4	NNW : NW : WNW	NW : N	2·7	0·0	0·24	283	10, oc.-th.-r : p.-cl : 10	10, fq.-shs.-r : 10
9	1·7	16·4	N	NNE	2·4	0·0	0·21	271	10 : 9 : 9	8, cu ci.-cu,th.-cl, th.-r : 10 : 10
10	8·9	16·5	N	N : NE : SE	1·5	0·0	0·08	192	v, hy.-d : 2, li.-cl : 8, cu, th.-cl	8, cu,th.-cl : 7, cu,th.-cl, h : 1, th.-cl, h, d
11	3·4	16·5	S : SSW	SSW : SSE	2·3	0·0	0·12	203	p.-cl : 9 : 7, cu,ci.-cu, th.-cl	6, ci.-cu, th.-cl: 8, ci, ci.-cu, so.-ha : 10
12	0·0	16·5	SE : SSE	SE : ESE : E	4·3	0·0	0·23	219	10 : 10, li.-shs : 10, fq.-th.-r	10, oc.-slt.-r : 10, oc.-r
13	0·0	16·5	E : NNW : WSW	WSW : SW : NNW	1·5	0·0	0·09	218	10, hy.-r : 10, slt.-r, glm : 10, fq.-th.-r	10, fq.-r : 10, c.-hy.-r : 10, c.-hy.-r
14	0·0	16·5	WSW : W : WNW	W : SSW	1·4	0·0	0·09	211	10, c.-hy.-r: 10 : 10, th.-r	10, r : 10 : 10, fq.-r
15	1·9	16·5	WSW : SW	SW	1·0	0·0	0·03	187	10, slt.-r : 10 : 10	p.-cl : 10 : 10, oc.-shs
16	0·2	16·5	SW : Variable	Variable : NE	1·3	0·0	0·02	113	10 : 10 : 8, cu, th.-cl, fq.-r	9, oc.-slt.-r, so.-ha : p.-cl, oc.-slt.-r : 9
17	5·0	16·5	NNE : N	N : NNE	2·3	0·0	0·07	193	p.-cl, m, d: p.-cl : 8, cu,ci.-cu,slt.-sh	7, cu, ci.-cu, th.-cl, shs.-r : p.-cl, so.-ha : 9
18	4·4	16·6	NE : ENE : E	E : ESE	0·8	0·0	0·03	152	p.-cl, m : p.-cl : 8, cu, ci.-cu, th.-cl	8, cu, ci.-cu, th.-cl, so.-ha: 1, li.-cl, m, d
19	9·8	16·6	ESE : SE	E	3·7	0·0	0·35	241	1, m, d : 1, th.-cl, slt.-f: 5, cu, cl.-s,th.-cl, so.-ha	6,cu, ci.-cu,ci.-s: 8, th.-cl : 10, sc
20	0·0	16·6	E : SE : SW	SW : S : SSW	0·7	0·0	0·02	157	10 : 10 : 10, fq.-r	10, oc.-slt.-r : p.-cl, so.-ha: 2, ci.-s, s, d
21	6·5	16·6	SW	SW : WSW	1·6	0·0	0·10	236	p.-cl : 7, cu, ci.-cu, th.-cl	9, oc.-slt.-r : 5, cu,ci.-cu, th.-cl, hy.-sh : 1
22	10·5	16·6	SW	SW	2·2	0·0	0·11	224	1, hy.-d : 5, cu, ci.-cu, th.-cl	5 : 9, oc.-slt.-r : 9
23	5·4	16·6	SW	Variable	0·6	0·0	0·02	163	p.-cl : p.-cl : 8, cu, ci.-cu, ci.-s	9 : 7 : 1, li.-cl, d
24	13·6	16·6	Variable : SE	ESE : SE	0·4	0·0	0·01	115	0, h, hy.-d : 1, li.-cl, h	0 : 0 : 0, hy.-d, m
25	14·9	16·6	ESE : E	E	3·7	0·0	0·39	290	0, d, m : li.-cl : 1, cu	0 : 0 : 0, d
26	14·9	16·6	ENE : E	E : ENE	6·6	0·0	0·63	314	0, d : 0, w	0, w : 0
27	15·4	16·5	ENE	E	5·0	0·0	0·33	247	0, d : 0 : 1, ci	0, w : 0
28	14·8	16·5	ENE : E	E	5·3	0·0	0·38	260	0, d : 0	0, w : 0 : 0, d, l
29	6·8	16·5	E : ESE : S	SSW : SW : SSE	2·9	0·0	0·08	158	0, d : 0 : 7, ci, ci.-cu, ci.-s	10, slt.-r : p.-cl, so.-ha: 3, ci.-s, th.-cl
30	12·3	16·5	Variable : Calm	SSE : ESE	3·6	0·0	0·04	129	p.-cl : 1, li.-cl : 4, cu, ci.-s, th.-cl	4, cu, ci.-cu, ci.-s, prh: 9, t.-sm
Means	6·2	16·5	...	...	...	...	0·18	224		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 53°·6, being 1°·4 *lower* than
The mean *Temperature of the Dew Point* for the month was 49°·9, being 1°·2 *lower* than
The mean *Degree of Humidity* for the month was 76·1, being 2·1 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·360, being 0in·015 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·0, being 0gr·2 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 532 grains, being 1 grain *greater* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·373. The maximum daily amount of *Sunshine* was 15·4 hours on June 27.

The highest reading of the *Solar Radiation Thermometer* was 156°·1 on June 30; and the lowest reading of the *Terrestrial Radiation Thermometer* was 29°·8 on June 10.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 1·5; for the 6 hours ending 15h was 2·0; and for the 6 hours ending 21h was 0·8.

The *Proportions of Wind* referred to the cardinal points were N. 4, E. 10, S. 8, and W. 7. One day was calm.

The *Greatest Pressure of the Wind* in the month was 6·6 lbs. on the square foot on June 26. The mean daily *Horizontal Movement of the Air* for the month was 224 miles; the greatest daily value was 368 miles on June 6; and the least daily value was 113 miles on June 16.

Rain fell on 15 days in the month, amounting to 3in·095, as measured by gauge No. 6 partly sunk below the ground; being 1in·073 *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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 50 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	...	29·758	73·1	51·3	21·8	60·2	− 1·1	58·4	56·8	3·4	11·9	0·0	89	137·0	47·7	0·331	6·3	wP : ... : wP, wwN
2	...	30·044	62·1	48·4	13·7	54·2	− 7·2	49·8	45·5	8·7	16·2	1·6	72	119·6	39·9	0·000	0·0	wP : mP : mP
3	...	30·099	68·0	45·2	22·8	57·4	− 4·3	52·1	47·3	10·1	16·6	1·1	69	126·4	38·1	0·000	0·0	wP : ... : mP
4	Greatest Dec. N.: Perigee	29·982	76·7	46·6	30·1	63·4	+ 1·5	56·5	50·7	12·7	18·0	2·3	63	131·2	38·7	0·000	0·0	wP
5	New	30·022	76·9	59·3	17·6	67·1	+ 5·0	62·4	58·6	8·5	16·5	1·7	75	145·0	54·3	0·000	0·0	wP
6	...	30·007	83·2	57·2	26·0	67·9	+ 5·7	63·8	60·6	7·3	18·5	0·2	78	148·3	55·2	0·000	0·0	wwP
7	...	29·956	81·1	58·2	22·9	69·5	+ 7·4	61·8	55·8	13·7	21·9	6·1	61	141·8	46·9	0·000	0·0	wP : wP : mP
8	...	29·975	83·5	54·6	28·9	69·8	+ 7·8	61·0	54·2	15·6	27·5	4·6	57	141·0	41·7	0·000	0·0	wP
9	...	29·752	75·2	55·6	19·6	63·3	+ 1·3	60·4	58·0	5·3	12·4	0·4	83	138·1	49·8	0·246	0·0	wP : wP : wP, wN
10	In Equator	29·533	66·6	53·8	12·8	57·2	− 4·9	53·3	49·7	7·5	14·4	0·4	76	127·1	47·0	0·102	0·5	wP : vP, ssN : mP
11	...	29·903	64·4	48·4	16·0	55·1	− 7·2	49·7	44·5	10·6	16·8	3·8	68	126·7	35·2	0·003	1·5	wP, wN : mP : wP
12	First Quarter	30·023	72·9	42·4	30·5	57·7	− 4·9	51·7	46·3	11·4	20·7	1·1	66	127·3	30·8	0·000	0·0	wP : wP : mP
13	...	29·941	81·0	53·1	27·9	64·7	+ 1·8	56·5	49·7	15·0	26·4	6·4	58	137·7	44·6	0·000	0·0	wP
14	...	29·884	86·1	50·7	35·4	68·4	+ 5·3	59·3	52·2	16·2	32·8	4·4	56	124·6	34·8	0·000	0·0	mP : wP
15	...	29·837	84·6	55·6	29·0	71·9	+ 8·7	61·5	53·7	18·2	31·8	7·2	52	130·2	46·0	0·000	0·0	wP : vP : mP
16	...	29·857	76·9	54·9	22·0	64·9	+ 1·7	59·1	54·3	10·6	18·2	4·4	69	136·4	43·0	0·000	0·0	wP : wwP
17	Apogee: Greatest Declination S.	29·844	75·7	51·2	24·5	63·8	+ 0·7	56·7	50·8	13·0	23·6	2·7	63	122·2	37·8	0·000	3·0	wP : mP : sP
18	...	29·885	68·9	50·2	18·7	59·6	− 3·4	51·7	44·8	14·8	21·8	7·0	57	119·1	38·1	0·000	0·0	wP : mP : mP
19	...	29·848	67·0	46·7	20·3	56·3	− 6·7	50·8	45·7	10·6	20·7	2·2	68	117·7	33·8	0·014	3·0	mP : mP : wP, wN
20	Full	29·713	58·0	50·6	7·4	53·3	− 9·7	50·9	48·5	4·8	9·7	1·2	84	77·0	46·8	0·075	3·5	wP, wN : wP, wN : mP
21	...	29·780	58·6	49·3	9·3	52·8	−10·2	49·8	46·9	5·9	9·9	2·5	81	97·1	45·4	0·016	1·5	wP : sP : sP
22	...	29·783	58·4	48·5	9·9	53·0	− 9·9	50·8	48·6	4·4	9·2	0·8	85	86·3	41·4	0·046	2·0	wP, wwN : wP, wwN : mP
23	...	29·749	67·7	52·8	14·9	58·2	− 4·6	55·1	52·3	5·9	12·2	0·8	81	111·6	46·9	0·002	0·0	wP : mP : wP
24	...	29·697	70·0	52·5	17·5	60·0	− 2·6	55·0	50·6	9·4	16·2	1·6	71	124·7	45·3	0·000	7·0	wP : wP : wP, wN
25	In Equator	29·743	70·8	54·4	16·4	60·7	− 1·7	55·9	51·8	8·9	16·4	2·6	72	131·8	49·2	0·002	3·0	wP
26	...	29·439	74·2	54·6	19·6	64·1	+ 1·8	59·1	54·9	9·2	20·4	1·1	72	132·2	52·0	0·075	3·0	wwP, wN : wwP, vN
27	...	29·531	65·7	51·0	14·7	58·7	− 3·6	55·5	52·6	6·1	15·2	1·1	80	108·1	45·5	0·120	0·5	wwP : wP, vN : mP
28	Last Quarter	29·957	70·9	49·4	21·5	59·4	− 2·9	54·0	49·2	10·2	16·2	0·6	69	135·7	43·6	0·008	3·5	wP : wP, mN : wP
29	...	30·000	69·9	51·5	18·4	59·9	− 2·4	54·5	49·7	10·2	21·8	1·0	69	124·3	39·0	0·000	1·0	wP : wP : mP
30	...	29·966	68·4	51·2	17·2	58·9	− 3·4	53·7	49·1	9·8	20·0	0·8	70	116·0	44·0	0·028	0·0	wP : mP : sP, vN
31	Greatest Declination N.	29·934	67·3	51·6	15·7	57·9	− 4·4	52·8	48·2	9·7	18·9	0·8	70	135·1	42·9	0·026	0·5	wP : mP : mP
Means	...	29·853	71·7	51·6	20·1	60·9	− 1·5	55·6	51·0	9·9	18·5	2·3	70·5	125·1	43·4	Sum 1·094	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 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was 29in·853, being 0in·060 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 86°·1 on July 14; the lowest in the month was 42°·4 on July 12; and the range was 43°·7.
The mean of all the highest daily readings in the month was 71°·7, being 2°·3 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 51°·6, being 1°·5 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 20°·1, being 0°·8 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 60°·9 being 1°·5 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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.	Least.	Mean of 24 Hourly Measures.	ROBINSON'S. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
July 1	2·0	16·5	WSW	WSW : NNE : N	4·8	0·0	0·16	257	p.-cl : 10	10, t.-sm, fq.-r : 10, sc, c.-r
2	1·1	16·5	N : NNE	N : NE : ENE	1·5	0·0	0·14	238	p.-cl : 9	9, cu, th.-cl : 8, ci.-cu, cu.-s, so.-ha : p.-cl, d
3	8·2	16·5	SSW : SW	SW : SSW	0·8	0·0	0·02	172	o, d : o : 7, cu, ci.-cu, th.-cl	9, so.-ha : p.-cl : 1, s
4	7·6	16·5	SSW : SW	WSW : SW : W	2·5	0·0	0·16	262	p.-cl : 9 : 5, th.-cl, so.-ha	9, ci.-s, th.-cl : 9
5	6·3	16·4	W : NW : N	N : ENE : ESE	1·8	0·0	0·07	175	9 : 1, th.-cl, h : 5, h	7, ci.-cu, th.-cl: 7, cu : v
6	7·6	16·4	ESE : SE	S : SE : SW	1·0	0·0	0·03	152	p.-cl : 9 : 4, cu, ci.-cu, th.-cl	6, cu, th.-cl : 7, ci.-cu, th.-cl : 1, li.-cl
7	13·0	16·4	WSW : NW	NNW : NNE	1·1	0·0	0·04	187	o, d : o : 4, cu, th.-cl, h	2, ci.-s, s : 1, ci.-s, th.-cl : 1, d
8	11·8	16·4	NNE : Calm : WSW	WSW : W	3·1	0·0	0·20	240	o, d : 1, h, m : 5, ci.-cu, ci.-s, th.-cl, h	5, ci, ci.-s : 3, th.-cl : 1, s, th.-cl
9	1·0	16·3	WSW	W : WNW : WSW	4·4	0·0	0·48	374	p.-cl : 10 : 10	10, fq.-r : 10, sc, fq.-r : li.-cl
10	6·7	16·3	WSW : W	W : NW : NNW	8·9	0·0	1·16	489	p.-cl : p.-cl : 9, sh.-r, w	9, sc, t.-sm, fq.-r, hl: 10, w : 10, w
11	8·2	16·3	NW : NNW : N	N : Variable	3·5	0·0	0·36	292	9, slt.-r : p.-cl : 7, cu	9, cu, cu.-s : 6, cu, li.-cl : o
12	12·1	16·3	Variable : WSW	WSW : SW	2·1	0·0	0·06	181	o, hy.-d, m: o, h : 4, cu, th.-cl	5, cu, th.-cl, so.-ha : p.-cl
13	10·8	16·2	WSW	WSW : SW	1·9	0·0	0·06	198	9 : v : 5, ci, ci.-cu, ci.-s	6, ci, ci.-s, cu.-s, th.-cl : li.-cl
14	14·1	16·2	SW : S	SSE : SE : E	0·2	0·0	0·00	129	o, d : li.-cl : 3, th.-cl	1, th.-cl : o : o
15	11·8	16·1	SSE : Calm : W	SW : NW : N	1·8	0·0	0·11	197	v : o : 4, ci.-cu, th.-cl	o : o
16	7·4	16·1	NNW : N : NNE	ESE : SE	1·6	0·0	0·06	165	o : o : 2, cu, th.-cl	6, cu, th.-cl : 6, cu, cu.-s, th.-cl: 1, th.-cl, d
17	8·4	16·1	SW : WSW : N	W : NW : N	1·7	0·0	0·10	200	o : th.-cl : 2, ci, th.-cl, so.-ha	5, cu, ci.-cu, th-cl : 5, cu, cu.-s, ci.-cu, slt.-sh : 9
18	12·2	16·0	N : NW	NW : NNW	2·7	0·0	0·22	257	p.-cl : li.-cl : 6, cu, ci.-cu, th.-cl	4, cu, th.-cl : 1, th.-cl : o
19	6·3	16·0	NNW : N	NW : W	2·5	0·0	0·10	191	1, d : v : 9, cu, th.-cl	7, cu, th.-cl : p.-cl : 10, slt.-r
20	0·4	16·0	NE	NNE : N	4·0	0·0	0·23	277	10, li.-shs : 10 : 10, sc, fq.-r	10, fq.-r : p.-cl : 9, w
21	0·3	15·9	NNW	NNW : S	2·5	0·0	0·24	268	10, slt.-r : 10 : 10	10, sc : 10, oc.-slt.-r : 10
22	0·0	15·9	S : WSW	WSW : SW	2·5	0·0	0·12	234	10 : 10 : 10, slt.-r	10, sc, r : 10, fq.-r : 10
23	1·3	15·8	SW : W : Variable	SW : SSW	1·0	0·0	0·01	163	10 : 10 : 10, oc.-slt.-r	10 : 9 : 10
24	3·9	15·8	SSW : SW	SW : WSW	2·3	0·0	0·12	239	p.-cl : 9 : 8, cu, ci.-cu, th.-cl	8, sh.-r : p.-cl : 9
25	1·9	15·7	SW : WSW	SSW : SSE	0·9	0·0	0·03	169	9 : 9, m : 7, cu, th.-cl	9 : 10 : 10, slt.-r
26	8·8	15·7	ESE : S : SSW	SSW	14·5	0·0	1·65	523	10, shs.-r : p.-cl : 7, cu, th.-cl, w	8, sc, w : p.-cl, oc.-shs, w : 10, st.-w, slt.-r
27	1·9	15·6	SW	W : WSW	10·5	0·0	0·96	441	10, shs.-r, w: 10, w : 10, fq.-r, w	10, oc.-hy.-shs, w : p.-cl : o
28	9·3	15·6	WSW : SW	SW : WSW	2·5	0·0	0·24	322	o : 7, cu, ci.-cu	8, cu, sh.-r : p.-cl : o
29	8·2	15·5	SW : WSW	WSW : W	5·0	0·0	0·41	376	o, d : 7, cu, th.-cl	8, cu, th.-cl : p.-cl : o
30	3·6	15·5	WSW : SW	WSW : W : WNW	2·7	0·0	0·09	247	o : li.-cl : 9, ci, cu, cu.-s, so.-ha	9, so.-ha : 10, sh.-r : 10, th.-r
31	5·1	15·5	WSW : NE : N	N : NNE : ENE	1·0	0·0	0·02	145	10, shs.-r : 10 : 7, cu, th.-cl	4, cu, th.-cl : 3, ci.-s, cu.-s : o
Means	6·5	16·1	...	...	...	...	0·25	250		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 55°·6, being 2°·2 *lower* than
The mean *Temperature of the Dew Point* for the month was 51°·0, being 2°·9 *lower* than
The mean *Degree of Humidity* for the month was 70·5, being 3·3 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·374, being 0in·042 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·2 being 0gr·4 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 530 grains, being 3 grains *greater* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 6·8.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·404. The maximum daily amount of *Sunshine* was 14·1 hours on July 14.

The highest reading of the *Solar Radiation Thermometer* was 148°·3 on July 6; and the lowest reading of the *Terrestrial Radiation Thermometer* was 30°·8 on July 12.

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

The *Proportions of Wind* referred to the cardinal points were N. 7, E. 3, S. 7, and W. 13. One day was calm.

The *Greatest Pressure of the Wind* in the month was 14·5 lbs. on the square foot on July 26. The mean daily *Horizontal Movement of the Air* for the month was 250 miles; the greatest daily value was 523 miles on July 26; and the least daily value was 129 miles on July 14.

Rain fell on 12 days in the month, amounting to 1in·094, as measured by gauge No. 6 partly sunk below the ground; being 1in·376 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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 50 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	Perigee	29·987	64·9	47·3	17·6	55·9	− 6·3	51·4	47·1	8·8	19·4	2·2	73	126·6	36·8	0·000	5·5	wP
2	...	29·831	71·4	42·8	28·6	57·7	− 4·4	52·9	48·6	9·1	21·4	1·4	72	124·0	33·9	0·095	6·0	wP : wP : vP, ssN
3	New	29·707	67·7	53·8	13·9	59·6	− 2·5	53·9	48·8	10·8	17·6	2·2	68	112·1	46·7	0·020	4·5	wP, wN : wP : wP
4	...	29·709	69·4	53·4	16·0	58·7	− 3·5	55·5	52·6	6·1	13·7	3·0	80	125·6	46·2	0·050	4·5	wwP : wP, sN : wP
5	...	29·754	73·6	54·4	19·2	62·1	− 0·2	57·8	54·1	8·0	17·1	2·1	76	126·8	51·5	0·014	0·7	wP
6	In Equator	29·668	71·3	56·2	15·1	61·5	− 0·9	60·5	59·6	1·9	9·0	0·9	94	110·6	51·3	0·257	9·3	wwP : wwN, wwP : wP, sN
7	...	29·596	70·7	55·9	14·8	61·9	− 0·6	58·7	56·0	5·9	12·2	0·8	82	116·1	51·1	0·088	8·8	wwP
8	...	29·712	68·4	52·0	16·4	57·9	− 4·6	55·3	53·0	4·9	13·3	2·8	83	123·3	48·5	0·011	5·2	wwP : wP, wwN : mP
9	...	29·970	61·0	46·7	14·3	55·0	− 7·5	51·5	48·2	6·8	11·2	2·5	78	101·9	39·0	0·002	0·0	wP : wP : mP, wN
10	...	29·874	65·2	50·7	14·5	56·4	− 6·1	52·0	47·9	8·5	18·3	2·4	73	108·6	43·8	0·081	4·0	wP, wwN : wP, vN : mP
11	First Quarter	29·874	63·0	45·0	18·0	53·6	− 8·9	48·1	42·7	10·9	19·2	4·0	67	110·3	38·4	0·000	0·0	mP
12	...	29·859	63·9	47·9	16·0	54·4	− 8·1	51·4	48·5	5·9	11·0	1·9	80	89·6	35·5	0·041	0·0	wP, wN : sP : vP
13	Apogee	29·821	70·9	46·8	24·1	56·9	− 5·5	54·0	51·3	5·6	14·9	0·4	82	127·9	39·5	0·023	0·0	wP
14	Greatest Declination S.	29·761	71·8	56·2	15·6	61·1	− 1·2	58·1	55·5	5·6	13·7	0·8	82	106·2	50·4	0·028	0·0	wwP : wP : vP, vN
15	...	29·820	71·6	54·0	17·6	62·4	+ 0·3	59·1	56·3	6·1	13·1	0·9	81	121·3	46 6	0·000	0·0	wwP
16	...	29·649	79·0	48·3	30·7	64·3	+ 2·3	58·0	52·8	11·5	21·1	1·4	66	133·5	38·9	0·001	0·5	wP
17	...	29·563	68·1	58·2	9·9	61·8	0·0	59·5	57·6	4·2	6·7	1·7	86	95·0	55·6	0·421	9·5	wwP, wwN : wwP, vN : wwP
18	...	29·589	66·2	56·7	9·5	61·1	− 0·5	60·0	59·0	2·1	7·6	0·0	93	94·2	53·0	0·512	12·5	wwP : wwP, vN : wwP
19	Full	29·534	73·1	58·3	14·8	63·2	+ 1·8	60·3	57·9	5·3	13·7	0·6	83	126·0	52·3	0·305	4·5	wwP, wwN : vP, sN : wP
20	...	29·718	68·2	49·2	19·0	59·2	− 2·1	54·2	49·7	9·5	18·9	1·8	71	118·2	40·1	0·006	0·0	wP : wP, wwN : wP
21	In Equator	29·938	67·2	51·6	15·6	58·4	− 2·7	53·3	48 8	9·6	18·2	1·0	70	113·3	42·0	0·000	0·0	wP : mP : vP
22	...	30·018	73·9	46·4	27·5	61·4	+ 0·4	56·0	51·4	10·0	18·4	2·1	70	123·2	35·7	0·000	3·0	wP
23	...	29·844	68·0	55·2	12·8	61·2	+ 0·3	58·1	55·4	5·8	12·1	1·1	82	102·0	50·0	0·186	0·5	wP : wP : wP, mN
24	...	29·688	70·9	55·7	15·2	61·7	+ 0·9	59·0	56·7	5·0	13·5	0·8	84	109·1	51·0	0·219	1·5	wwP : wP : wP, mN
25	...	29·821	68·4	51·2	17·2	59·8	− 1·0	54·8	50·4	9·4	17·1	1·3	71	114·0	46·4	0·000	0·0	wwP : wP : wP
26	Last Quarter	29·836	71·8	48·7	23·1	58·8	− 2·0	55·5	52·5	6·3	15·3	0·8	80	124·2	41·0	0·004	1·0	wP : wwP : wP
27	Greatest Declination N.	29·705	70·0	48·2	21·8	56·5	− 4·2	54·6	52·8	3·7	20·7	0·6	88	111·6	40·0	0·000	0·0	wP
28	...	29·756	75·4	49·1	26·3	62·2	+ 1·6	57·1	52·7	9·5	21·4	0·4	72	127·1	37·5	0·000	0·0	wP : wwP : wP
29	Perigee	29·614	77·0	54·1	22·9	66·1	+ 5·8	58·2	51·8	14·3	26·7	2·3	60	131·5	43·9	0·000	0·0	wP : wP : mP
30	...	29·552	66·7	55·0	11·7	59·7	− 0·4	56·1	52·9	6·8	13·3	3·2	79	106·7	49·0	0·024	6·0	wP : mP : wP
31	...	29·663	67·2	55·0	12·2	59·7	− 0·2	58·4	57·3	2·4	6·5	1·3	92	105·0	50·9	0·543	0·0	wwP : wwP, wN : wwP
Means	...	29·756	69·5	51·7	17·8	59·7	− 1·9	55·9	52·6	7·1	15·4	1·6	78·0	115·0	44·7	Sum 2·931	2·8	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was 29^{in}·756, being 0^{in}·026 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 79°·0 on August 16; the lowest in the month was 42°·8 on August 2; and the range was 36°·2.
The mean of all the highest daily readings in the month was 69°·5, being 3°·3 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 51°·7, being 1°·3 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 17°·8, being 2°·0 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 59°·7, being 1°·9 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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.	Least.	Mean of Hourly 24 Measures.	ROBINSON'S. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Aug. 1	2·7	15·4	ENE : NE	ENE : ESE : SE	0·4	0·0	0·01	143	9 : 10 : 9	8,cu,ci.-cu,th.-cl: 5,ci.-cu,ci.-s,d: 9
2	4·8	15·3	SSE : SSW : WSW	WSW : SW	2·8	0·0	0·19	249	9, m : li.-cl, h,m: 5, cu, ci.-cu, ci.-s, so.-ha	8,cu,ci.-cu,slt.-r: v, li.-shs : v, shs.-r
3	4·0	15·3	SW : WSW	W : WSW : SW	3·7	0·0	0·35	341	9, li.-shs : 9 : 8, cu, n, shs.-r	p. cl : 7, cu.-s,ci.-s,th.-cl : 0
4	1·9	15·2	SW	WSW : SW	1·4	0·0	0·02	178	p.-cl : 10 : 8, cu, ci.-cu, sh.-r	v, oc.-shs : 9
5	4·0	15·2	WSW : SW	SE : SSE	1·1	0·0	0·00	112	9 : p.-cl : 8, cu, ci.-cu, th.-cl	9, cu, th.-cl : 10, oc.-slt.-r : 10, slt.-sh
6	0·8	15·1	SE : S : SSW	SSW	2·5	0·0	0·09	199	10, shs.-r : 10, c.-hy.-r: 10, fq.-r	10, fq.-r : v, fq.-hy.-shs: 3
7	3·7	15·1	SSW : SW	SW	4·2	0·0	0·27	301	p.-cl, oc.-slt.-r: 10, fq.-shs: v, shs.-r	9, cu, ci.-cu, oc.-hy.-shs : 5, cu.-s, th.-cl: p.-cl
8	1·2	15·0	SW : WSW	N : NNE	2·8	0·0	0·20	292	9 : 10 : 10, sh.-r, t	9, cu, ci.-cu, ci.-s, oc.-r : 10, sc, oc.-shs : 10, sc
9	2·3	15·0	N : WSW	WSW	2·0	0·0	0·10	237	0 : p.-cl : 10	10, oc.-shs, l : 10, oc.-r : p.-cl
10	5·6	14·9	WSW : SW : W	W : NNW	4·5	0·0	0·31	317	v, oc.-th.-r: 9 : 9, cu, ci. cu, th.-cl, shs.-r	v, hy.-sh, w : li.-cl : li.-cl
11	8·4	14·9	WNW : NNW	NW : W	3·0	0·0	0·25	289	0 : 0 : 6, cu, ci.s. th.-cl	6, cu.ci.-s, th.-cl: 8, cu, th.-cl, slt.-sh : li.-cl
12	1·2	14·8	SW : NNW	SW : Variable	0·5	0·0	0·00	129	p.-cl, oc.-th.-r : 10, oc.-slt.-r	8, cu, ci.-cu : 5, cu, cu.-s, h, f, glm : 1, th.-cl, h, f, d
13	0·9	14·8	SW : WSW	WSW : SW	1·7	0·0	0·04	170	p.-cl, d : 10	p.-cl : 10, fq.-th.-r : p.-cl, d
14	0·7	14·7	SW : WSW	WSW : Variable	0·6	0·0	0·01	146	10 : 10	10, hy.-sh, t : 8, th.-cl, d, lu.-ha
15	3·1	14·6	E : ESE : SSE	SW : SSW	0·5	0·0	0·02	168	10 : 10	7, cu, ci.-cu, th.-cl: 4, th.-cl, so.-ha : th.-cl, lu.-ha
16	8·2	14·6	SSW : SW	SE : NE : E	0·8	0·0	0·03	139	0, h, d : 1, li.-cl : 5, cu, ci.-cu, ci.-s	3, cu, ci.-s : 6, cu, th.-cl, so.-ha : 9, lu.-ha, slt.-r, l
17	1·2	14·5	ENE : ESE	SW	1·7	0·0	0·07	182	10, c.-r : 10 : 10	10, fq.-hy.-r : 8, cu : p.-cl
18	0·2	14·4	SW : SSW	SSW : SW	3·4	0·0	0·23	291	p.-cl : 10 : 10, sc, hy.-r	10, sc, c.-r : 10, sc, c.-r
19	6·5	14·4	SW : WSW	SW : NNW	3·5	0·0	0·17	274	10, c.-hy.-r: p.-cl : 7, cu, th.-cl	8, cu, n, sc, hy.-sh, l, t : p.-cl, l, t, oc.-slt.-r: 9
20	8·1	14·3	NNW : W : SW	WSW	3·5	0·0	0·30	290	9 : 3, li.-cl : 7, cu, th.-cl, slt.-sh	5, cu, ci.-cu, th.-cl : 2, cu, slt.-sh : 0
21	5·3	14·3	WSW : NNW	NNW : NE : E	0·4	0·0	0·01	150	1, li.-cl, hy.-d: 10 : 6, ci, cu, ci.-cu	6, cu, ci.-cu, th.-cl, h : p.-cl
22	10·9	14·2	NE : S : SW	SSW	1·0	0·0	0·04	163	0, d : p.-cl : 4, ci, ci.-s, th.-cl	6, ci, ci.-s, cu : 4, ci, ci.-s : 3, th -cl, h, lu.-ha
23	0·4	14·1	SSW : SW	SW	3·3	0·0	0·15	256	9 : 10, slt.-r : 10, fq.-r	10 : 10 : 10, hy.-r
24	2·6	14·1	SW : W : NW	W : WSW	2·0	0·0	0·03	171	10, c.-r : 10 : 9, so.-ha	9, cu, th.-cl, so.-ha : 9, hy.-sh : 1, li.-cl
25	6·8	14·0	WSW	NW : N : SW	0·6	0·0	0·01	154	p.-cl, d : 2 : 6, ci, ci.-s, th.-cl	6, cu, th.-cl, t : 7, cu, th.-cl : 10
26	6·4	13·9	N : NE : SE	SSE : ESE : NE	1·6	0·0	0·03	136	p.-cl, d : th.-cl : 5, cu, ci.-cu, th -cl	9, sh.-r : 6, th.-cl : v, m
27	2·9	13·9	Calm : SW	SE : S	1·5	0·0	0·01	112	10, f : 10, tk.-f : 9, f,-glm	6, cu, th.-cl, m : 0, hy.-d
28	7·1	13·8	S : ESE : SSE	S : SSE	1·5	0·0	0·03	143	1, d, slt.-f: li.-cl : 8, cu, cu.-s, th.-cl	7, cu, ci.-cu : v, li.-cl, hy.-d, l
29	10·9	13·8	E : NE	E : ENE	0·7	0·0	0·04	164	p.-cl, d, f : 1, th.-cl : 3, ci, ci.-s	1, ci, ci.-s : 0, hy.-d
30	0·3	13·7	N	N : NE	3·0	0·0	0·25	260	10 : 10	10, oc.-slt.-r : 10 : 10, oc.-r, t
31	1·3	13·6	ENE : ESE : SE	SW : S	3·4	0·0	0·05	179	10 : p.-cl : 10, c.-r	p.-cl, fq.-r : th.-cl : 10
Means	4·0	14·5	...	...	...	...	0·11	204		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 55°·9, being 1°·7 *lower* than
The mean *Temperature of the Dew Point* for the month was 52°·6, being 1°·6 *lower* than
The mean *Degree of Humidity* for the month was 78·0, being 1·2 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·397, being 0in·024 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·4, being 0gr·3 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 530 grains, being 2 grains *greater* than
} the average for the 50 years, 1841–1890.

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 0·276. The maximum daily amount of *Sunshine* was 10·9 hours on August 22 and 29.

The highest reading of the *Solar Radiation Thermometer* was 133°·5 on August 16; and the lowest reading of the *Terrestrial Radiation Thermometer* was 33°·9 on August 2.

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

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 5, S. 9, and W. 11. One day was calm.

The *Greatest Pressure of the Wind* in the month was 4·5 lbs. on the square foot on August 10. The mean daily *Horizontal Movement of the Air* for the month was 204 miles; the greatest daily value was 341 miles on August 3; and the least daily value was 112 miles on August 5 and 27.

Rain fell on 19 days in the month, amounting to 2in·931, as measured by gauge No. 6 partly sunk below the ground; being 0in·581 *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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 50 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	...	29·710	73·0	55·0	18·0	63·3	+ 3·6	61·3	59·6	3·7	9·8	0·8	88	116·0	49·0	0·045	2·0	wwP : wwP : wP
2	New	29·661	71·9	53·4	18·5	62·4	+ 2·7	60·5	58·9	3·5	13·0	0·0	89	131·0	46·0	0·054	4·5	wwP
3	In Equator	29·533	71·8	57·5	14·3	64·1	+ 4·5	59·6	55·9	8·2	18·5	0·9	75	127·5	52·0	0·030	7·5	wwP, wN ; wwP : wP
4	...	29·739	71·1	55·0	16·1	61·7	+ 2·3	57·7	54·3	7·4	16·6	1·5	77	130·8	45·0	0·001	0·0	wwP : wP : wP
5	...	29·851	67·4	52·8	14·6	58·9	− 0·4	56·2	53·8	5·1	13·7	1·0	83	112·2	38·5	0·013	0·0	wP : mP : wP
6	...	29·903	70·7	49·2	21·5	59·3	+ 0·2	54·9	51·0	8·3	19·1	0·8	74	118·0	39·0	0·000	0·0	wwP : wwP : wP
7	...	30·008	70·1	44·1	26·0	57·6	− 1·3	54·4	51·5	6·1	18·0	0·8	80	124·2	34·8	0·000	0·0	wP
8	...	30·043	69·1	45·2	23·9	58·0	− 0·7	54·4	51·2	6·8	17·6	0·6	78	124·2	37·0	0·000	2·2	wP : wP : mP
9	First Quarter	29·849	70·6	51·3	19·3	60·2	+ 1·7	56·6	53·5	6·7	16·7	0·6	79	124·0	39·8	0·000	0·8	wP
10	Apogee: Greatest Declination S.	29·795	67·6	55·8	11·8	60·5	+ 2·2	59·0	57·7	2·8	9·5	0·2	91	109·6	50·6	1·104	2·5	wwP, wN : vP, vN
11	...	29·678	65·7	55·4	10·3	59·7	+ 1·6	58·9	58·2	1·5	4·8	0·2	95	86·7	49·2	0·335	1·5	wwP : wwP, wN : wP
12	...	29·548	59·6	47·7	11·9	53·3	− 4·7	50·1	46·9	6·4	13·1	0·8	79	105·8	43·5	0·010	0·7	wwP : mP : wP, wwN
13	...	29·817	55·5	41·2	14·3	47·9	−10·0	43·6	38·9	9·0	18·4	4·2	72	101·2	34·5	0·000	2·3	wP : mP : mP
14	...	29·715	61·0	42·8	18·2	53·5	− 4·3	50·0	46·6	6·9	9·9	2·7	77	108·0	34·1	0·000	0·0	wP
15	...	29·766	62·0	52·4	9·6	57·0	− 0·7	53·5	50·2	6·8	13·9	3·0	78	96·2	50·0	0·000	6·5	wP
16	...	29·579	66·2	50·0	16·2	56·5	− 1·0	52·9	49·6	6·9	16·5	2·7	78	115·1	44·6	0·058	3·5	wwP : wP, ssN : wP
17	In Equator : Full	29·777	60·4	46·2	14·2	52·8	− 4·5	48·1	43·4	9·4	18·4	0·8	71	112·1	40·7	0·000	0·0	wP : mP : sP
18	...	30·066	59·8	39·4	20·4	49·5	− 7·4	45·4	41·0	8·5	17·5	2·6	73	108·0	32·0	0·000	0·0	mP : sP : vP
19	...	30·203	65·1	36·8	28·3	49·9	− 6·6	46·0	41·9	8·0	20·7	1·6	74	111·7	29·4	0·000	0·0	wP : wP : mP
20	...	30·135	63·9	37·1	26·8	52·4	− 3·7	48·2	43·9	8·5	18·4	0·0	73	115·0	29·3	0·000	0·5	wP : wP : mP
21	...	30·055	65·4	46·6	18·8	56·1	+ 0·4	52·5	49·1	7·0	14·6	1·6	77	115·8	37·7	0·000	1·5	wP
22	...	29·916	75·1	52·5	22·6	60·2	+ 4·8	56·5	53·3	6·9	17·3	0·8	78	124·2	43·0	0·000	0·0	wwP : wP : wP
23	Perigee	29·729	69·7	53·3	16·4	60·8	+ 5·6	57·4	54·5	6·3	13·1	1·1	80	116·0	43·5	0·002	1·0	wP
24	Greatest Dec. N.: Last Quarter	29·915	63·3	45·2	18·1	55·6	+ 0·5	51·5	47·6	8·0	17·7	1·6	75	97·2	36·6	0·000	0·0	wP : mP : sP
25	...	30·194	64·9	39·6	25·3	52·7	− 2·3	48·9	45·1	7·6	18·5	0·7	76	109·2	30·5	0·000	0·0	wP : mP : wP
26	...	30·281	66·9	40·1	26·8	52·8	− 2·1	49·5	46·2	6·6	20·0	0·4	79	110·3	30·1	0·000	0·0	wP : mP : mP
27	...	30·251	67·4	38·3	29·1	54·9	0·0	51·9	49·0	5·9	14·0	0·2	80	107·2	31·9	0·000	0·0	wP
28	...	30·222	59·1	47·9	11·2	54·1	− 0·7	50·1	46·2	7·9	15·0	2·2	74	119·1	39·2	0·000	0·0	wP : wP : mP
29	...	30·037	56·4	46·2	10·2	49·9	− 4·7	47·3	44·5	5·4	11·0	3·1	83	95·2	40·0	0·000	3·0	wP : mP, mN : mP
30	In Equator	29·794	57·0	47·4	9·6	51·9	− 2·5	48·1	44·3	7·6	11·8	3·6	75	93·1	40·9	0·000	0·5	mP
Means	...	29·892	65·6	47·5	18·1	56·2	− 0·9	52·8	49·6	6·7	15·2	1·4	78·7	112·2	39·7	Sum 1·652	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 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was $29^{in}\cdot892$, being $0^{in}\cdot086$ *higher* than the average for the 50 years, 1841–1850.

TEMPERATURE OF THE AIR.

The highest in the month was 75°·1 on September 22; the lowest in the month was 36°·8 on September 19; and the range was 38°·3.
The mean of all the highest daily readings in the month was 65°·6, being 1°·7 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 47°·5, being 1°·6 *lower* than the average for the 50 years, 1841–1850.
The mean of the daily ranges was 18°·1, being 0°·1 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 56°·2, being 0°·9 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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.	Least.	Mean of 24 Hourly Measures.	ROBINSON'S. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Sept. 1	2·9	13·6	S : E	SSW	3·0	0·0	0·05	214	10 : 10 : 9, cu, th.-cl, fq.-th.-r	7, cu, ci.-cu, ci.-s, oc.-th.-r: 0, hy.-d
2	2·7	13·5	S : SSW	S : SE	2·2	0·0	0·06	194	1, hy.-d : p.-cl : 7, ci, ci.-s, th.-cl	10, sc, fq.-r : 10
3	7·9	13·4	SSE : SW	SW	6·5	0·0	1·08	415	10, oc.-th.-r: v, hy.-sh: 6, cu, ci.-cu, sc, w	5, ci, cu, ci.-s: 3, cu : 0, d
4	11·0	13·4	SSW	SW	3·7	0·0	0·41	307	0, d : 1, li.-cl : 7, cl, cu, ci.-cu, ci.-s	6, cu, slt.-sh: 2, li.-cl : 0, d, m
5	1·5	13·3	WSW : NW	N : SW	0·1	0·0	0·00	112	p.-cl, f : 10, glm : 7, ci, ci.-cu, cu	7, cu, cu.-s : p.-cl, sh.-r : 0, hy.-d
6	7·5	13·2	SW : WSW	WSW : SW	1·6	0·0	0·03	160	p.-cl, m : 3, cu	2, cu : 2, cu : 0, hy.-d
7	7·3	13·2	SSW : SW	Variable : Calm	0·1	0·0	0·00	90	0, hy.-d : 0, h : 3, cu, th.-cl	2, cu, th.-cl : 0, hy.-d
8	9·2	13·1	Calm : NE : E	E : ESE : ENE	2·5	0·0	0·07	160	0, hy.-d : p.-cl, f : 7, ci, ci.-cu, th.-cl	4, cu, th.-cl : 1 : 0, hy.-d
9	3·5	13·1	NE : ENE : E	E : NE	2·6	0·0	0·10	222	p.-cl, f : 5, ci, ci.-cu, ci.-s	8, ci.-cu : 9 : 8, d, l
10	0·8	13·0	NE : ENE	E : ESE	1·7	0·0	0·08	224	10, li.-shs : 10, sc	10, slt.-r, t : 10, hy.-r, l, t : 10
11	0·2	12·9	SE	Calm : NE	0·6	0·0	0·00	93	10 : 10 : 10, oc.-slt.-r	10, fq.-r : 10, oc.-r : 10, c.-r
12	0·0	12·9	NNE	N : NNW	4·2	0·0	0·24	312	10, oc.-th.-r : 10, fq.-th.-r	8, cu : p.-cl : 9, oc.-slt.-r, w
13	10·3	12·8	N	NNW : NW : SW	2·0	0·0	0·21	275	0 : 0 : 1, th.-cl	3, cu, th.-cl: 4, th.-cl : v
14	0·5	12·7	WSW	W : WNW	3·1	0·0	0·15	279	10 : 10 : 10, oc.-th.-r	10, oc.-th.-r : 10
15	0·1	12·7	WSW	SW	4·2	0·0	0·33	336	10 : 10	10, sc : v, lu.-ha, sh.-r
16	5·2	12·6	WSW	W : WSW	8·3	0·0	0·89	475	10 : v, li.-shs: 8, cu, th.-cl	8, cu, sc, hy.-shs, t, w : p.-cl : 0, d
17	8·4	12·6	WSW : NW	NW : WNW	4·3	0·0	0·36	360	0, hy.-d : 0 : 5, cu, li.-cl, w	7, cu, ci.-cu, ci.-s: li.-cl : 1, li.-cl
18	9·2	12·5	W : WSW : NNW	N : NNE : S	1·6	0·0	0·08	227	0, hy.-d : 1, li.-cl : 4, cu, th.-cl	4, cu, li.-cl : 1, li.-cl : 0, slt.-f, hy.-d
19	8·3	12·4	WSW : Calm	SSE : SE	0·5	0·0	0·00	115	0, h, f, ho.-fr: 0, slt.-f : 1, cu, ci.-s, so.-ha	3, ci, cu, th.-cl : 2, th.-cl : 0, d
20	5·5	12·4	E : ESE : SE	SE : SSE : ESE	1·3	0·0	0·03	133	0, slt.-f : tk.-f : 5, ci.-cu, ci.-s, cu.-s	5, ci, ci.-s, cu.-s, so.-ha : p.-cl, lu.-ha
21	4·4	12·3	SE : ESE	ESE : E	1·1	0·0	0·05	161	p.-cl : 9 : 9, ci.-cu, th.-cl	6, ci.-cu, th.-cl : p.-cl, d
22	5·7	12·2	ESE	SE : E	0·7	0·0	0·01	148	9 : 9, sh.-r : 7, cl, ci.-s, so, -ha	3, ci, ci.-s : th.-cl, d
23	1·8	12·2	ESE	SE : SSW : SW	2·3	0·0	0·06	204	p.-cl : 7, cu, ci.-cu, ci.-s	8 : p.-cl, slt.-r : p.-cl
24	6·1	12·1	WSW : NW	N : NNE	0·5	0·0	0·00	150	p.-cl, d : 1, li.-cl, h: 3, cu, th.-cl, h	5, cu, ci.-cu, th.-cl, so.-ha : 0, f, d
25	8·6	12·0	NNE : NE	NE : SE : Calm	1·1	0·0	0·03	129	0, slt.-f, hy.-d: 0, slt.-f : 2, cu, th.-cl	2, th.-cl : 0, d : 0, slt.-f, hy.-d
26	7·1	12·0	Calm : ENE	E : ESE : ENE	0·7	0·0	0·01	104	0, f, hy.-d: 0, tk.-f : 0	0 : 0 : 0, slt.-f, d
27	5·3	11·9	Calm : SW : N	ENE : NNE	0·6	0·0	0·02	130	0, slt.-f : 0, tk.-f, d: p.-cl, slt.-f	3, ci, ci.-cu, ci.-s, so.-ha : 5, th.-cl : 9, th.-cl
28	6·5	11·8	NNE : N : NE	NNE : N	2·8	0·0	0·31	310	p.-cl, d : 6, cu, ci.-s, th.-cl	p.-cl : p.-cl
29	1·1	11·8	N : NNE : NE	NE : NNE	4·2	0·0	0·39	362	p.-cl : 10, oc.-slt.-r, w	8, cu, th.-cl : 5, cu, th.-cl, slt.-sh : li.-cl
30	1·0	11·7	NNE : NE	ENE : NE	2·2	0·0	0·27	335	9 : p.-cl : 8, ci.-cu.-cu.-s	10 : 10
Means	5·0	12·6	...	...	...	...	0·18	225		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 52°·8, being 1°·4 *lower* than
The mean *Temperature of the Dew Point* for the month was 49°·6, being 1°·8 *lower* than
The mean *Degree of Humidity* for the month was 78·7, being 2·1 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·356, being 0in·023 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·0, being 0gr·2 *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 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·394. The maximum daily amount of *Sunshine* was 11·0 hours on September 4.

The highest reading of the *Solar Radiation Thermometer* was 131°·0 on September 2; and the lowest reading of the *Terrestrial Radiation Thermometer* was 29°·3 on September 20.

The mean daily distribution of *Ozone* for the 12 hours ending 9h was 0·5; for the 6 hours ending 15h was 0·7; and for the 6 hours ending 21h was 0·1.

The *Proportions of Wind* referred to the cardinal points were N. 6, E. 8, S. 7, and W. 6. Three days were calm.

The *Greatest Pressure of the Wind* in the month was 8·3 lbs. on the square foot on September 16. The mean daily *Horizontal Movement of the Air* for the month was 225 miles; the greatest daily value was 475 miles on September 16; and the least daily value was 90 miles on September 7.

Rain fell on 8 days in the month, amounting to 1in·652, as measured by gauge No. 6 partly sunk below the ground; being 0in·599 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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 50 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	New	29·673	58·1	50·2	7·9	53·5	− 0·6	49·5	45·5	8·0	14·4	3·5	74	106·2	45·5	0·026	5·7	wP, wN : mP : mP
2	...	29·819	53·3	42·7	10·6	49·2	− 4·6	46·6	43·8	5·4	10·6	3·5	82	80·8	30·7	0·042	1·3	wP, wwN : mP : mP, wN
3	...	29·946	47·1	41·0	6·1	43·8	− 9·7	40·9	37·5	6·3	14·1	2·4	78	68·0	35·0	0·040	5·5	vP, vN : vP : vP, wN
4	...	29·912	46·9	43·2	3·7	45·3	− 7·9	43·0	40·4	4·9	8·0	2·2	83	53·0	40·4	0·003	0·0	mP : mP : ...
5	...	29·775	52·5	46·5	6·0	48·3	− 4·7	45·6	42·7	5·6	9·2	4·2	81	73·2	43·9	0·000	0·0	... : wP : mP
6	...	29·659	49·9	46·0	3·9	47·3	− 5·4	46·7	46·0	1·3	5·5	1·0	96	58·3	43·7	0·004	0·0	wwP : wP : wwP
7	Greatest Declination S.	29·655	54·4	45·1	9·3	49·7	− 2·8	48·1	46·4	3·3	7·0	0·2	89	68·0	34·7	0·000	0·0	wwP : mP : mP
8	Apogee	29·716	58·0	42·8	15·2	50·3	− 1·8	47·6	44·8	5·5	11·4	0·2	82	100·8	30·4	0·000	0·2	wP
9	First Quarter	29·525	55·0	44·2	10·8	51·4	− 0·3	50·4	49·4	2·0	8·2	0·2	93	62·0	35·3	0·176	5·3	...
10	...	29·338	67·1	51·3	15·8	57·7	+ 6·4	54·9	52·4	5·3	11·3	0·8	83	112·9	41·0	0·013	4·5	...
11	...	29·464	61·9	50·2	11·7	54·6	+ 3·6	53·7	52·8	1·8	4·2	1·0	94	86·2	41·0	0·094	0·2	wwP
12	...	29·999	56·7	43·2	13·5	50·0	− 0·6	47·6	45·1	4·9	11·8	2·1	84	100·0	35·1	0·000	0·8	wP
13	...	30·011	61·7	47·6	14·1	56·6	+ 6·3	54·0	51·6	5·0	7·6	2·8	83	78·0	41·9	0·002	0·0	wwP
14	...	29·739	61·2	48·2	13·0	54·0	+ 3·9	51·4	48·9	5·1	12·0	2.1	82	90·6	43·6	0·110	2·0	wwP : vP, sN : wP
15	In Equator	29·500	59·1	48·9	10·2	53·6	+ 3·7	51·3	49·1	4·5	9·1	0·6	84	78·0	43·6	0·301	0·0	wwP : wwP : wP, wN
16	...	29·362	56·7	42·6	14·1	50·2	+ 0·4	46·3	42·2	8·0	13·4	4·4	75	90·8	36·8	0·000	0·0	wwP : wP, sN : mP
17	Full	29·564	54·8	40·4	14·4	46·4	− 3·2	43·2	39·6	6·8	12·4	3·8	78	85·5	35·1	0·002	0·2	wP : mP : mP
18	...	29·541	51·6	42·1	9·5	47·9	− 1·6	46·6	45·2	2·7	5·5	1·0	91	61·0	36·1	0·209	2·8	wP, vN : wP : mP
19	...	29·816	56·2	32·6	23·6	45·8	− 3·5	44·0	41·9	3·9	12·2	0·0	86	93·8	27·8	0·034	0·5	mP : wP : wP, wwN
20	Perigee	29·616	61·2	46·3	14·9	53·0	+ 4·0	51·6	50·2	2·8	8·9	0·8	90	76·0	41·0	0·101	1·5	... : wP
21	Greatest Declination N.	29·860	57·0	41·3	15·7	49·0	+ 0·2	45·7	42·2	6·8	14·4	1·8	77	87·8	33·8	0·000	0·0	wP : mP : mP
22	...	29·958	54·5	43·6	10·9	49·5	+ 1·0	46·4	43·1	6·4	11·4	1·9	79	78·0	37·1	0·044	0·0	wP : wN, mP : mP
23	Last Quarter	30·277	54·7	38·8	15·9	48·1	− 0·1	46·9	45·6	2·5	5·4	0·9	92	65·0	31·2	0·000	0·0	wP : wP : wwP
24	...	30·354	58·5	47·3	11·2	52·4	+ 4·5	49·0	45·5	6·9	13·5	1·0	78	88·5	39·6	0·000	2·0	wwP : mP : mP
25	...	30·281	58·5	46·0	12·5	53·0	+ 5·4	50·0	47·0	6·0	8·4	1·6	80	73·2	39·2	0·000	0·0	wP
26	...	29·960	54·6	43·3	11·3	50·7	+ 3·3	48·4	46·0	4·7	9·4	0·2	85	69·2	36·0	0·018	0·0	wP : wP : mP
27	In Equator	29·901	53·4	44·6	8·8	51·0	+ 3·7	48·3	45·5	5·5	7·0	2·3	82	65·8	39·8	0·000	1·0	wP
28	...	29·970	56·0	37·2	18·8	48·7	+ 1·5	47·5	46·2	2·5	8·8	0·0	92	71·7	32·0	0·003	0·0	wP : wwP
29	...	29·940	55·4	38·2	17·2	47·4	+ 0·4	46·1	44·7	2·7	8·6	0·0	91	91·3	29·6	0·000	6·0	wwP : wP : wP
30	...	29·915	56·2	42·0	14·2	49·4	+ 2·4	47·1	44·6	4·8	10·0	1·3	84	73·1	33·0	0·019	2·0	wP
31	New	30·018	51·9	36·2	15·7	45·3	− 1·5	42·9	40·2	5·1	12·6	0·9	82	69·8	29·2	0·000	0·0	wP : mP : mP
Means	...	29·809	55·9	43·7	12·3	50·1	+ 0·1	47·8	45·4	4·7	9·9	1·6	84·2	79·2	37·1	Sum 1·241	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 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was 29^{in}·809, being 0^{in}·093 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 67°·1 on October 10; the lowest in the month was 32°·6 on October 19; and the range was 34°·5.
The mean of all the highest daily readings in the month was 55°·9, being 1°·8 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 43°·7, being 0°·4 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 12°·3, being 2°·1 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 50°·1, being 0°·1 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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.	Least.	Mean of 24 Hourly Measures.	ROBINSON'S. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Oct. 1	2·0	11·7	NE : NNE	NE : NNE	6·6	0·0	1·02	487	10 : 10, oc.-shs : 9,cu,ci.-cu,ci.-s,w	9, cu, ci.-cu, sc, w : 10, sc, w : 10, w
2	0·1	11·6	NNE : NE : ENE	ENE : NE	6·1	0·0	0·80	459	10, li.-shs : 10, sc, oc.-slt.-r, w	10, sc, n, w : 8 cu, th.-cl, li.-shs, w : 0
3	0·1	11·5	NE : ENE	ENE : NE	4·2	0·0	0·35	358	9, li.-shs, w : 10 : 10, sc, oc.-th.-r	9, cu, cu.-s : 10, fq.-r : 10, fq.-th.-r
4	0·0	11·4	ENE : NE	ENE : NE	3·5	0·0	0·23	309	10, li.-shs : 10 : 10, sc	10, sc : 10
5	0·0	11·4	NE : ENE	ENE : NE : NNE	3·0	0·0	0·12	272	10 : 10	10 : 10
6	0·0	11·3	NNE : N	SW : N	0·3	0·0	0·00	111	10 : 10, th.-r, f, glm : 10, th.-r, glm	10, oc.-th.-r, f, glm : 10, f : 10, slt.-f
7	0·0	11·2	WSW	NNW : N	0·1	0·0	0·00	112	10, f : 10, slt.-f	9 : p.-cl : 10
8	6·1	11·2	NE : ENE	E : ESE	0·4	0·0	0·00	153	p.-cl : 0, f : 2, cu, th.-cl	3, ci, cu : 1, th.-cl : 0, d, slt.-f
9	0·0	11·1	E	E : ENE	6·2	0·0	0·39	316	p.-cl, slt.-f : 10 : 10, sc, r, w	10, sc, r : 6, ci.-s, th.-cl : p.-cl
10	4·5	11·0	ENE : SW	SSW : SE : SSE	4·0	0·0	0·17	262	9, sh.-r : p.-cl : 6, ci, ci.-s, cu	6, ci, ci.-s, cu : 4, li.-cl : 1, li.-cl
11	0·0	11·0	ESE	N	4·7	0·0	0·23	236	p.-cl : 10, li.-shs : 10, fq.-r	10, oc.-slt.-r : 10 : 10
12	4·5	10·9	N	NNE : SSW	1·5	0·0	0·05	200	p.-cl : 1, li.-cl : 4, cu, th.-cl, so.-ha	5, cu, ci.-cu, th.-cl : th.-cl, lu.-co, hy.-d : v, d
13	0·0	10·8	SSW : SW	SW : SSW	3·9	0·0	0·48	425	9 : p.-cl : 10, sc	10 : 10, oc.-th.-r
14	3·1	10·8	SSW : SW : WSW	WSW : W	4·6	0·0	0·44	411	10, li.-shs : 10 : 9, cu, ci.-cu, oc.-r	7, cu, th.-cl, shs.-r, w : th.-cl : 4. th.-cl, h, lu.-ha
15	0·0	10·7	SW	SSW : SW	19·0	0·0	1·07	541	p.-cl, lu.-ha : p.-cl : 9, cu, th.-cl, sc, w	10, sc, fq.-r, w : 10, sc, hy.-sh : p.-cl
16	3·8	10·6	SW : WSW	W : WNW	5·8	0·0	0·90	540	p.-cl, w : li.-cl : 6, cu, th.-cl	7, cu, cu.-s, slt.-sh, so.-ha, w : 0
17	3·6	10·6	WSW : NW	NW : WNW : WSW	4·2	0·0	0·43	381	0 : 8, cu, w	8, cu, th.-cl : 5, ci.-cu, ci.-s : p.-cl, slt.-r
18	0·0	10·5	S : E : NNE	NNE : N	2·6	0·0	0·13	253	10 : 10, shs.-r : 10, fq.-th.-r	10, fq.-th.-r : 0
19	4·1	10·5	NNE : Calm : SE	SSW : SE : SW	0·6	0·0	0·00	118	tk.-f : tk.-f : 0, f	th.-cl : 10, fq.-r : 10
20	0·1	10·4	SW : SSW	WSW : NNW	2·9	0·0	0·17	282	p.-cl : 10, shs.-r : 10, sc, oc.-r	10 : 10, oc.-slt.-r : 10, oc.-r
21	8·4	10·4	NW : SW : WSW	W : SW	2·4	0·0	0·13	277	p.-cl : 0 : 3, cu, li.-cl	4, cu : 0 : li.-cl, hy.-d
22	0·7	10·3	SW : SSW : W	NW : NNW : N	7·5	0·0	0·56	402	0 : p.-cl, shs.-r, w : 10, sc, fq.-r, w	9, w : p.-cl : 0, h, m, d
23	0·0	10·2	W : WSW : SSW	SW : W	0·1	0·0	0·00	157	p.-cl, d : 10, slt.-f : 10, slt.-f	10, oc.-th.-r : 10
24	3·0	10·1	SW : WSW	WSW : SSW	1·5	0·0	0·04	184	10 : p.-cl, d : 7, cu, ci.-cu, cu.-s	8, cu.-s, ci.-cu : 10 : 10
25	0·0	10·1	SW : WSW	W : NW : SSW	0·4	0·0	0·00	164	10 : 10	10 : 10, f : v, slt.-f
26	0·4	10·0	SSW : S	SSW : SW : WSW	3·6	0·0	0·25	327	9 : 10 : 10, sc, fq.-r	10, oc.-slt.-r : p.-cl : p.-cl
27	0·0	10 0	W : NW : NNW	N	2·2	0·0	0·12	251	10 : 10	10, oc.-th.-r : th.-cl : p.-cl, f
28	0·0	9·9	SW : SSE : SE	SW : SSE	0·1	0·0	0·00	117	tk.-f : tk.-f : 9, oc.-th.-r	10, fq.-th.-r : 10
29	4·9	9·8	E : NE : SE	SW : SSW	0·1	0·0	0·00	139	0, slt.-f, d : 0, slt.-f : 0	3, cu, ci.-cu, th.-cl : 0, hy.-d
30	0·1	9·8	SW : WSW : W	N	1·5	0·0	0·05	228	9, oc.-th.-r : 10, oc.-th.-r	10, sh.-r : p.-cl : 0, d
31	0·4	9·7	WSW : W	W : WSW	0·9	0·0	0·04	237	0, ho.-fr : p.-cl : 2, li.-cl, so.-ha, m	9, cu.-s, th.-cl : 10
Means	1·6	10·7	...	...	...	...	0·26	281		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 47°·8, being 0°·2 *lower* than
The mean *Temperature of the Dew Point* for the month was 45°·4, being 0°·5 *lower* than
The mean *Degree of Humidity* for the month was 84·2, being 1·4 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·304, being 0in·005 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·4, being 0gr·1 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 541 grains, being 2 grains *greater* than
} the average for the 50 years, 1841–1890.

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 0·151. The maximum daily amount of *Sunshine* was 8·4 hours on October 21.

The highest reading of the *Solar Radiation Thermometer* was 112°·9 on October 10; and the lowest reading of the *Terrestrial Radiation Thermometer* was 27°·8 on October 19.

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. 7, E. 6, S. 8, and W. 9. One day was calm.

The *Greatest Pressure of the Wind* in the month was 19·0 lbs. on the square foot on October 15. The mean daily *Horizontal Movement of the Air* for the month was 281 miles; the greatest daily value was 541 miles on October 15; and the least daily value was 111 miles on October 6.

Rain fell on 14 days in the month, amounting to 1in·241, as measured by gauge No. 6 partly sunk below the ground; being 1in·570 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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 50 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	...	29·960	57·7	46·5	11·2	51·4	+ 4·7	49·2	47·0	4·4	9·7	1·1	85	75·0	38·7	0·000	0·0	wP
2	...	30·071	54·4	40·5	13·9	47·8	+ 1·3	45·0	41·9	5·9	10·0	2·1	81	87·3	29·0	0·000	0·0	wP
3	...	29·962	53·2	42·0	11·2	47·1	+ 0·8	45·9	44·6	2·5	7·0	0·0	92	73·2	32·0	0·004	0·0	wP, wwN : wP : mP
4	Greatest Declination S.	29·861	52·4	40·2	12·2	45·3	− 0·8	43·4	41·2	4·1	11·4	0·0	86	84·0	34·2	0·000	0·5	wP
5	Apogee	29·530	55·9	42·3	13·6	49·4	+ 3·5	48·8	48·2	1·2	3·6	0·2	96	73·0	35·3	0·120	1·5	wP : wP, vN : wP
6	...	29·411	57·9	51·2	6·7	54·1	+ 8·6	53·1	52·1	2·0	5·6	0·6	93	84·6	45·1	0·080	3·2	wwP
7	...	29·386	57·5	47·5	10·0	53·6	+ 8·5	50·5	47·5	6·1	11·4	1·3	79	88·2	40·5	0·014	8·8	wwP : wP : vP, sN
8	First Quarter	29·382	54·1	44·7	9·4	49·5	+ 4·9	47·5	45·4	4·1	6·5	1·7	86	70·5	38·3	0·246	14·0	vP, sN : vN, wP : wP
9	...	29·425	54·1	44·4	9·7	48·6	+ 4·6	45·6	42·4	6·2	13·8	1·9	80	81·1	38·3	0·000	0·0	wP : mP
10	...	29·694	52·9	42·3	10·6	47·7	+ 4·1	46·3	44·8	2·9	8·8	1·3	90	64·0	35·2	0·001	0·0	wP : mP : mP
11	In Equator	29·540	52·6	43·6	9·0	48·1	+ 4·9	46·6	45·0	3·1	7·8	1·1	90	63·0	38·5	0·014	0·0	wP
12	...	29·770	55·3	39·7	15·6	50·4	+ 7·5	48·5	46·5	3·9	10·6	1·0	87	71·0	30·2	0·002	0·0	wwP : wP : mP
13	...	30·006	55·2	34·7	20·5	45·1	+ 2·3	43·4	41·4	3·7	10·6	0·0	87	83·0	27·0	0·000	0·0	wP
14	...	30·154	55·9	40·0	15·9	48·6	+ 6·0	47·2	45·7	2·9	8·0	0·7	90	81·2	33·1	0·000	0·0	wP
15	Full	30·151	48·1	40·3	7·8	44·6	+ 2·1	43·4	42·0	2·6	7·1	0·7	91	62·0	35·0	0·000	2·0	wwP : wP : wP
16	...	30·097	44·6	38·6	6·0	42·2	− 0·2	39·8	36·8	5·4	8·8	1·6	82	68·8	32·3	0·000	6·0	wwP : wP : wP
17	Perigee: Greatest Declination N.	30·142	43·7	34·7	9·0	38·6	− 3·7	36·4	33·4	5·2	7·9	1·9	83	71·0	26·7	0·000	0·0	wP : mP : mP
18	...	30·101	40·0	32·2	7·8	35·7	− 6·5	32·4	27·4	8·3	12·2	3·0	71	71·8	26·7	0·000	0·0	wP : mP : mP
19	...	29·934	33·3	31·3	2·0	32·2	− 10·0	30·0	25·1	7·1	10·2	4·9	74	35·3	29·6	0·000	2·0	wP : sP : sP
20	...	30·026	34·7	28·0	6·7	32·5	− 9·6	31·2	28·5	4·0	6·8	2·4	85	47·7	19·0	0·002	0·0	mP : sP : mP
21	...	30·066	38·8	27·2	11·6	31·8	− 10·3	30·4	27·1	4·7	5·8	1·7	81	45·6	17·3	0·000	0·5	mP : sP : mP
22	Last Quarter	29·943	38·7	29·6	9·1	34·1	− 8·1	32·5	29·7	4·4	6·0	2·0	83	43·8	23·0	0·000	1·5	wP : mP : mP
23	...	29·807	49·9	38·7	11·2	44·2	+ 2·1	42·4	40·3	3·9	7·6	0·5	86	66·0	27·9	0·018	0·0	wP, mN : mP : mP
24	In Equator	29·497	51·0	37·3	13·7	45·9	+ 3·8	45·2	44·4	1·5	3·2	0·0	95	53·6	30·0	0·153	4·0	wP : wwP
25	...	29·105	52·3	47·0	5·3	49·9	+ 7·9	48·4	46·8	3·1	5·1	0·8	90	74·2	43·2	0·034	14·0	wwP : wwP, wwN : wwP
26	...	29·235	48·8	46·3	2·5	47·3	+ 5·4	46·4	45·4	1·9	3·8	0·6	94	58·5	44·5	0·029	0·0	wwP : wP, wN : wP
27	...	29·438	46·4	40·5	5·9	44·5	+ 2·9	43·7	42·8	1·7	3·7	0·0	94	51·9	33·7	0·000	0·0	wP : wP
28	...	29·179	49·4	40·7	8·7	46·0	+ 4·7	44·2	42·1	3·9	7·3	0·2	87	59·3	33·6	0·183	3·0	wwP : vN, wP : mP
29	...	29·232	49·0	36·9	12·1	44·8	+ 3·8	43·8	42·7	2·1	4·8	1·1	93	61·0	30·0	0·006	5·0	wP
30	New	29·314	46·1	45·1	1·0	45·7	+ 5·0	45·2	44·6	1·1	1·3	0·0	96	47·1	43·2	0·386	0·0	wwP, wN : wwP, wwN
Means	...	29·714	49·5	39·8	9·7	44·9	+ 1·7	43·2	41·1	3·8	7·5	1·1	86·9	66·6	33·0	Sum 1·292	2·2	...
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 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was 29^{in}·714, being 0^{in}·030 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 57°·9 on November 6; the lowest in the month was 27°·2 on November 21; and the range was 30°·7.
The mean of all the highest daily readings in the month was 49°·5, being 0°·7 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 39°·8, being 2°·2 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 9°·7, being 1°·6 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 44°·9, being 1°·7 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1902.	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.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Nov. 1	1·3	9·6	WSW	W : NW : NNW	1·0	0·0	0·03	216	9 : 10	8, th.-cl : v : p.-cl, slt.-f
2	2·7	9·6	N : NNE : E	E : ESE	1·2	0·0	0·04	171	9 : p.-cl : 4, cu, th.-cl	4,cu,cu.-s,th.-cl: 0, d : 9
3	0·1	9·5	ESE : SE	Variable	0·1	0·0	0·00	106	9, li.-shs : 10 : 10	10, slt.-sh : p.-cl, f, glm : 0, tk.-f
4	2·7	9·5	ENE : ESE	E	2·0	0·0	0·10	202	tk.-f : 10 : 9, cu, ci.-s, th.-cl	5, cu, th.-cl: p.-cl : 0
5	0·0	9·4	E	SSE : S : SSW	1·0	0·0	0·05	238	0, d : 10, sh.-r	10, sc, fq.-r : p.-cl
6	1·9	9·4	SSW : SE : E	E : SE	1·5	0·0	0·07	228	9 : 9 : 8, ci, th.-cl	7, ci.-s, th.-cl : 10, fq.-r
7	4·5	9·3	S : SW : WSW	SW : SSW	4·4	0·0	0·21	327	10, oc.-shs : 5, cu, th.-cl	7, cu, ci.-cu, th.-cl: 8,ci.-cu,ci.-s: v, oc.-shs
8	1·6	9·3	SSW : S	SSW : SW	15·0	0·0	0·73	439	p.-cl, shs.-v : 1, li.-cl : 10, sc, fq.-r, w	v, r, st.-w : th.-cl : 1, li.-cl
9	5·6	9·2	SSW : SW	WSW	3·9	0·0	0·22	390	1, d : 2, cu, th.-cl	7, cu, li.-cl, slt.-sh : p.-cl
10	0·3	9·1	WSW : SW	SSW : SSE	0·5	0·0	0·00	212	p.-cl : 9, ci.-cu, th.-cl	p.-cl,sq.-ha : p.-cl,oc.-slt.-r : v, shs.-r
11	0·2	9·1	SE : ESE	SSE : S : SSW	3·1	0·0	0·18	283	9, m : 2, li.-cl : 8, th.-cl, so.-ha	10 : 10, oc.-slt.-r : 10
12	1·2	9·0	SW : W	WSW : SSW	0·5	0·0	0·02	213	10, oc.-th.-r : 10 : 10	8, ci.-cu, ci.-s, so.-ha: 0, hy.-d
13	6·4	9·0	SSW : S	SW : SSW	1·3	0·0	0·03	223	0,d,ho.-fr: tk.-f : 3, ci, ci.-s, th.-cl, slt.-f	5, ci, ci.-s, so.-ha: 4, th.-cl, lu.-ha: 1, d
14	0·7	8·9	S : SSW	SSW : SSE : SE	0·2	0·0	0·00	142	p.-cl, d : 9	10 : 10 : 9, lu.-ha
15	0·1	8·9	ENE : ESE : SE	ENE : E : ESE	1·7	0·0	0·06	190	8 : 10, slt.-f : 10	10 : 10
16	3·5	8·8	ESE : SE	ESE : E : ENE	1·3	0·0	0·07	189	10 : 10 : 2, th.-cl	5, cu, th.-cl: 10 : 1, li.-cl
17	5·2	8·8	ESE : E	E : ENE : ESE	4·6	0·0	0·27	301	0, ho.-fr : 0 : 3, cu, th.-cl	5, cu, th.-cl, w: p.-cl : p.-cl
18	6·9	8·7	ESE : E	ENE : E	10·5	0·0	1·05	477	0, ho.-fr : 0 : 1, w	0, w : 5, th.-cl, w : 9, w
19	0·0	8·7	ENE	NE	4·8	0·0	0·50	363	10, w : 10, w : 10, slt.-sn	10, oc.-sn : 10 : 10
20	0·0	8·6	NNE : N	NE : E : ESE	1·4	0·0	0·04	219	10 : 10 : 10, oc.-sn	10, oc.-sn : 10 : 1
21	0·0	8·6	ESE : N : NNE	ESE : SE	0·6	0·0	0·00	143	p.-cl, ho.-fr: 9 : 10, slt.-f	10 : p.-cl : 0, ho.-fr
22	0·0	8·5	ESE : SSE	S : SE	0·5	0·0	0·00	135	10 : 10 : p.-cl	10 : 10
23	5·9	8·5	SSE : SSW : WSW	WSW : SW : SSW	0·5	0·0	0·02	211	p.-cl : 10, oc-slt.-r : 2, cu, th.-cl	2, cu.-s : li.-cl
24	0·0	8·4	SSW : S : SSE	SE : SSE : S	2·7	0·0	0·11	243	p.-cl, m : 10, oc.-slt.-r, slt.-f: 10, fq.-th.-r	10, sc, fq.-th.-r: 10, c.-r : 10
25	0·2	8·4	S : SSE	SE : ESE : E	2·9	0·0	0·24	304	9 : p.-cl : 9, oc.-slt.-r, so.-ha	10, sc, oc.-slt.-r : 10, sc, fq.-th.-r: 10, shs.-r
26	0·0	8·3	E : ESE	ESE : E : ENE	0·3	0·0	0·00	158	10, oc.-shs : 10 : 10	10 : 10, oc.-slt.-r : 10
27	0·0	8·3	NE : ENE	SSE : SW	0·1	0·0	0·00	127	10 : 10	9 : p.-cl : 8, hy.-d
28	0·7	8·2	SSE	SW : WSW : SSW	5·0	0·0	0·35	340	10 : 10, sc : 10, sc, fq.-r, w	p.-cl, oc.-r : 1, th.-cl : p.-cl, slt.-sh
29	0·2	8·2	SSE : SE	SSE : ESE : E	2·5	0·0	0·13	257	v : 10 : 8, cu.-s, th.-cl	9, cu.-s, so.-ha: 10 : 9, shs.-r
30	0·0	8·2	ENE : E	ENE : NNE	6·6	0·0	0·20	257	10, r : 10, th.-r	10, fq.-th.-r : 10, slt.-r
Means	1·7	8·9	...	...	...	...	0·16	243		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 43°·2, being 1°·6 *higher* than
The mean *Temperature of the Dew Point* for the month was 41°·1, being 1°·4 *higher* than
The mean *Degree of Humidity* for the month was 86·9, being 0·6 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·258, being 0in·014 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·0, being 0gr·2 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 545 grains, being 3 grains *less* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7·3.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·195. The maximum daily amount of *Sunshine* was 6·9 hours on November 18.

The highest reading of the *Solar Radiation Thermometer* was 88°·2 on November 7; and the lowest reading of the *Terrestrial Radiation Thermometer* was 17°·3 on November 21.

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

The *Proportions of Wind* referred to the cardinal points were N. 2, E. 11, S. 12, and W. 4. One day was calm.

The *Greatest Pressure of the Wind* in the month was 15·0 lbs. on the square foot on November 8. The mean daily *Horizontal Movement of the Air* for the month was 243 miles; the greatest daily value was 477 miles on November 18; and the least daily value was 106 miles on November 3.

Rain fell on 12 days in the month, amounting to 1in·292, as measured by gauge No. 6 partly sunk below the ground; being 0in·974 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1902.	Phases of the Moon.	BAROMETER.	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.		Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
			Of the Air.					Of Evaporation.	Of the Dew Point.					Of Radiation.				
		Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean.	Greatest.	Least.		Highest in Sun Rays.	Lowest on the Grass.			
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Dec. 1	Greatest Declination S.	29·374	49·6	42·9	6·7	45·7	+ 5·1	45·2	44·6	1·1	4·0	0·2	96	52·3	42·9	0·161	0·7	wwP : wP : wwP, wwN
2	Apogee	29·356	49·4	39·3	10·1	46·1	+ 5·5	44·1	41·8	4·3	9·2	1·0	86	61·5	32·0	0·000	0·8	wP, mN : wP : wP
3	...	29·835	39·3	30·2	9·1	35·2	− 5·6	34·1	32·4	2·8	9·9	0·5	89	39·3	26·0	0·012	1·0	wP : wP : sP
4	...	30·314	34·4	27·5	6·9	30·5	−10·6	28·6	23·1	7·4	9·6	1·8	72	58·3	21·7	0·000	0·0	mP : sP : sP
5	...	30·276	32·4	25·4	7·0	29·4	−11·9	28·1	23·8	5·6	9·9	3·5	79	32·6	20·5	0·003	0·0	mP : sP : vP
6	...	30·170	31·7	26·0	5·7	29·3	−12·0	27·5	21·3	8·0	12·7	4·2	71	36·0	20·9	0·000	0·0	wP : mP : sP
7	...	30·149	34·6	24·5	10·1	30·6	−10·4	28·8	23·7	6·9	9·0	4·1	74	40·9	18·7	0·000	0·5	sP : ... : mP
8	First Quarter: In Equator	29·976	34·9	32·2	2·7	33·7	− 6·9	31·9	28·6	5·1	8·7	1·6	81	34·9	31·0	0·042	1·5	mP : sP : vP
9	...	29·895	36·5	32·8	3·7	35·2	− 5·1	32·9	29·3	5·9	8·5	3·3	78	39·3	31·5	0·000	0·5	wP, mP : sP : sP
10	...	29·966	38·0	33·8	4·2	35·8	− 4·1	33·8	30·8	5·0	7·0	3·7	82	45·9	33·4	0·000	1·5	wP : mP
11	...	30·008	35·0	33·2	1·8	34·0	− 5·8	32·4	29·6	4·4	5·7	3·6	83	39·3	27·8	0·000	0·0	mP : sP
12	...	29·908	44·2	31·2	13·0	34·6	− 5·3	33·1	30·7	3·9	4·6	1·4	85	53·1	27·6	0·002	0·0	mP : sP : vP
13	...	29·915	49·8	44·2	5·6	47·2	+ 7·1	46·3	45·3	1·9	3·4	0·6	94	54·3	39·7	0·052	1·0	wwP, wN : wP : wP
14	...	30·021	52·7	45·7	7·0	50·5	+10·3	48·8	47·0	3·5	5·8	0·8	89	56·9	40·3	0·014	5·3	wwP
15	Full: Greatest Dec. N. : Perigee	29·867	50·3	37·9	12·4	44·8	+ 4·5	41·9	38·5	6·3	10·9	2·1	79	62·2	31·6	0·103	8·2	wwP, wN : mP : sP
16	...	29·817	55·6	40·3	15·3	49·4	+ 9·2	47·8	46·1	3·3	6·2	1·5	89	57·0	35·0	0·141	5·0	vP, wwN : wwP : wwP
17	...	29·799	56·7	46·7	10·0	52·8	+12·8	50·4	48·0	4·8	8·2	0·4	84	56·7	43·8	0·527	1·5	wwP : wP : wP
18	...	29·813	54·3	43·5	10·8	48·0	+ 8·3	44·4	40·4	7·6	12·8	0·4	75	65·0	37·4	0·076	0·0	wwP : wP : mP
19	...	30·105	47·8	43·2	4·6	46·0	+ 6·7	43·1	39·8	6·2	9·0	2·5	80	55·0	37·3	0·012	0·0	wP : mP, sN : wP
20	...	30·096	52·0	45·6	6·4	48·3	+ 9·3	45·5	42·5	5·8	9·2	2·7	81	65·1	42·1	0·000	0·0	wP : mP : wP
21	In Equator: Last Quarter	30·174	51·2	45·1	6·1	49·2	+10·4	47·3	45·2	4·0	5·0	2·9	87	53·6	38·7	0·000	0·0	wP
22	...	30·333	48·9	44·9	4·0	47·2	+ 8·6	46·3	45·3	1·9	3·6	1·0	94	51·2	42·6	0·000	0·0	wP
23	...	30·398	45·4	37·0	8·4	42·3	+ 3·9	40·7	38·8	3·5	5·3	2·9	88	48·0	31·2	0·000	0·0	wP : mP : mP
24	...	30·318	40·1	35·4	4·7	38·1	− 0·2	36·8	35·0	3·1	4·8	2·3	89	54·4	30·4	0·000	0·5	wP : mP : mP
25	...	30·054	50·7	37·5	13·2	46·1	+ 7·8	43·7	41·0	5·1	6·7	2·2	83	61·1	33·5	0·000	8·0	wP
26	...	29·977	51·5	46·5	5·0	49·1	+10·7	46·0	42·7	6·4	10·3	4·4	78	57·9	42·7	0·000	1·5	wP : mP : wP
27	...	29·950	50·0	46·6	3·4	48·6	+10·2	45·2	41·5	7·1	9·6	5·2	77	69·0	41·9	0·000	2·0	wP : mP : wP
28	Greatest Declination S.	29·515	48·9	41·0	7·9	45·5	+ 7·0	42·6	39·3	6·2	10·9	3·1	79	63·4	37·0	0·088	6·0	vP, wN : mP, mN : mP
29	Apogee: New	28·952	43·6	34·0	9·6	38·0	− 0·6	35·9	33·1	4·9	9·7	1·2	82	59·9	29·4	0·168	2·0	sN, vP : mP : mP
30	...	28·816	40·9	34·2	6·7	36·9	− 1·7	35·3	33·1	3·8	9·7	1·0	86	63·9	29·7	0·095	1·0	wP : mP : vP, ssN
31	...	29·095	41·4	32·8	8·6	37·5	− 1·1	36·2	34·4	3·1	7·6	1·6	89	46·0	26·5	0·002	2·0	wP : mP : sP
Means	...	29·879	44·9	37·5	7·4	41·5	+ 1·8	39·5	36·7	4·8	8·0	2·2	83·2	52·7	33·1	Sum 1·498	1·6	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-Bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was 29^{in}·879, being 0^{in}·088 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 56°·7 on December 17; the lowest in the month was 24°·5 on December 7; and the range was 32°·2.
The mean of all the highest daily readings in the month was 44°·9, being 0°·9 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 37°·5, being 2°·7 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 7°·4, being 1°·8 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 41°·5, being 1°·8 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1902	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.	Least.	Mean of 24 Hourly Measures.	ROBINSON'S. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Dec. 1	0·0	8·1	NE : SSW	SSE : S	4·0	0·0	0·13	186	10, oc.-slt.-r : 10, glm : 10, slt.-f	10 : 10, fq.-r : 10, sc, shs.-r
2	3·8	8·1	WSW : W	W : WSW	4·6	0·0	0·36	372	10 : 10 : 6, ci.-cu, ci.-s, so.-ha, w	1, ci.-cu, ci.-s, w : 0, d : 0, d
3	0·0	8·1	SW : NNE : NE	NE : NNE	3·7	0·0	0·23	286	0 : p.-cl : 10, fq.-th.-r, slt.-f	10, sc, slt.-sn : 9, th.-cl : p.-cl, ho.-fr
4	4·1	8·1	N : NNE	NE	2·3	0·0	0·15	299	p.-cl, ho.-fr : 0, ho.-fr : 3, th.-cl	5, cu, th.-cl : 0 : p.-cl, ho.-fr
5	0·0	8·0	NE : ENE	ENE : NE	5·9	0·0	0·37	393	9, oc.-sn : 10 : 10, oc.-sn, w	10, w : 10, w : 10, sl, w
6	0·0	8·0	ENE : E	E : ENE : NE	3·7	0·0	0·30	338	10 : 10	10, sc, slt.-sn : p.-cl : 10
7	0·1	8·0	NE	NE : NNE	1·9	0·0	0·07	275	p.-cl : 10 : 9, cu.-s	10 : 10
8	0·0	8·0	NE	NE : ENE : E	5·0	0·0	0·43	433	10 : 10 : 10, slt.-sn	10, fq.-r, sn, sl: 10, sn : 10, w
9	0·0	7·9	ENE : NE	ENE	5·5	0·0	0·58	440	10 : 10 : 10, sc, w	10, sc, w : 10
10	0·0	7·9	ENE : E	E : ENE	8·8	0·0	0·86	464	10, w : 10, sc, w	10, sc, w : 10
11	0·0	7·9	ENE	NE : ENE	2·1	0·0	0·06	237	10 : 10	10, sc : p.-cl : 10
12	0·0	7·9	NE : SE	E : ESE : SE	0·4	0·0	0·00	94	10 : 10 : 8, ci.-cu, cu.-s	7, cl.-cu, ci.-s, so.-ha : 6, ci.-s, th.-cl: p.-cl, sh.-r, slt.-f
13	0·0	7·8	S : SSW	SSW	1·8	0·0	0·07	261	10, li.-shs : 10 : 10, oc.-slt.-r	10, oc.-slt.-r : p.-cl : 10
14	0·0	7·8	SSW	SSW	16·0	0·0	0·88	487	10 : 10 : 10, sc, oc.-th.-r, w	10, sc, oc.-slt.-r, st.-w : 10, sc, st.-w
15	3·1	7·8	SSW : SW	W : WSW : SW	15·0	0·0	1·00	497	10, fq.-shs, st.-w : 10 : 4, cu.-s, li.-cl, w	4, th.-cl, sh.-r, w : 1, th.-cl : p.-cl, h, lu.-ha, d
16	0·0	7·8	SSW	SW : WSW	14·5	0·0	1·59	620	10, oc.-r, w : 10, sc, c.-r, w : 10, sc, fq.-r, st.-w	10, sc, oc.-slt.-r, st.-w : 10, sc, w
17	0·0	7·8	WSW	N : S	17·0	0·0	1·62	492	10, shs.-r, w : 10, w : 10, sc, oc.-slt.-r, w	10, sc, glm : 10, sc : 10, sc, c.-hy.-r
18	3·1	7·8	W	WNW : W	20·0	0·0	2·08	684	9, oc.-r, st.-w : p.-cl, st.-w : 8, sc, st.-w	8, cu, th.-cl, st.-w : 3, th.-cl, w : p.-cl, w
19	0·1	7·8	W : NW : NNW	WNW : WSW	4·4	0·0	0·46	421	p.-cl, w : 1, li.-cl : 9, oc.-slt.-r	10, fq.-r : p.-cl : 10
20	0·0	7·8	WSW : SW	NNW	3·7	0·0	0·27	338	10 : 10 : 9, cu, th.-cl	10 : 10
21	0·0	7·8	W : NNW : N	N	2·5	0·0	0·14	267	10 : 10	10 : 10
22	0·0	7·8	N : NNE : NE	E : ESE : SSE	0·2	0·0	0·00	110	10 : 10	10, oc.-th.-r : 10 : 10
23	0·0	7·8	SSE : S : SSW	SW : SSW	0·0	0·0	0·00	122	10 : 10	10 : 10, slt.-f
24	0·6	7·8	SW : WSW	WSW : W	2·7	0·0	0·08	227	10, slt.-f : 10 : 6, li.-cl	p.-cl : p.-cl
25	0·0	7·8	WSW	W	13·0	0·0	1·26	598	p.-cl : p.-cl : 8, sc, th.-cl, w	8, th.-cl, st.-w : 10, st.-w
26	0·0	7·8	W : NNW : WNW	W	5·9	0·0	0·63	473	10, w : 10, sh.-r : 7, ci.-cu, ci.-s, th.-cl	p.-cl : 1
27	3·5	7·8	W : WSW	WSW : SW	7·7	0·0	0·74	502	p.-cl : p.-cl : 3, cu, ci.-s, th.-cl	6, ci, ci.-s, th.-cl: p.-cl : 10, st.-w
28	1·9	7·8	SW : WSW	WSW : SW : SSW	13·0	0·0	1·75	645	10, st.-w, shs.-r : 7, th.-cl, sh.-r	p.-cl, oc.-shs, w : p.-cl : 10, sh.-r
29	4·6	7·8	SW : SSW	WSW : SW	14·0	0·0	0·56	426	10, oc.-shs : 9 : 6, ci.-s, th.-cl	2, cu, th.-cl : 0, w : v, sh.-r, w
30	5·0	7·8	WSW	WSW	5·5	0·0	0·63	466	0, ho.-fr : 0, ho.-fr : 3, th.-cl, w	4, th.-cl, w : 9, fq.-hy.-shs: 1, th.-cl
31	0·0	7·8	WSW : W	NW : WNW : WSW	3·0	0·0	0·15	336	0, ho.-fr : p.-cl : 10, oc.-slt.-r	5, cu.-s, th.-cl: p.-cl : 1, slt.-f
Means	1·0	7·9	...	...	...	...	0·56	380		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 39°·5, being 1°·2 *higher* than
The mean *Temperature of the Dew Point* for the month was 36°·7, being 0°·2 *higher* than
The mean *Degree of Humidity* for the month was 83·2, being 5·3 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·218, being 0in·002 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·6, being 0gr·1 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 552 grains, being 1 grain *less* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·122. The maximum daily amount of *Sunshine* was 5·0 hours on December 30.

The highest reading of the *Solar Radiation Thermometer* was 69°·0 on December 27; and the lowest reading of the *Terrestrial Radiation Thermometer* was 18°·7 on December 7.

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

The *Proportions of Wind* referred to the cardinal points were N. 6, E. 7, S. 6, and W. 11. One day was calm.

The *Greatest Pressure of the Wind* in the month was 20·0 lbs. on the square foot on December 18. The mean daily *Horizontal Movement of the Air* for the month was 380 miles; the greatest daily value was 684 miles on December 18; and the least daily value was 94 miles on December 12.

Rain fell on 13 days in the month, amounting to 1in·498, as measured by gauge No. 6 partly sunk below the ground; being 0in·272 *less* than the average fall for the 50 years, 1841–1890.

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

MAXIMA.			MINIMA.			MAXIMA.			MINIMA.		
Greenwich Civil Time, 1902.		Reading.	Greenwich Civil Time, 1902.		Reading.	Greenwich Civil Time, 1902.		Reading.	Greenwich Civil Time, 1902.		Reading.
	d h m	in.		d h m	in.		d h m	in.		d h m	in.
January	3. 22. 20	29·866	January	2. 1. 35	29·012	May	2. 2. 0	29·663	May	1. 4. 20	29·528
	7. 10. 15	30·489		4. 15. 5	29·661		8. 22. 50	30·091		3. 16. 5	29·383
	11. 20. 15	30·058		10. 16. 55	29·877		13. 7. 10	29·787		12. 15. 50	29·676
	15. 9. 15	30·700		12. 14. 35	29·908		16. 10. 40	29·514		16. 1. 55	29·410
	19. 10. 50	30·280		18. 13. 25	30·172		21. 23. 5	30·188		18. 1. 50	29·107
	21. 22. 0	30·226		20. 14. 5	30·064		25. 7. 40	30·286		23. 1. 40	30·009
	26. 11. 10	29·670		25. 5. 5	28·972		29. 10. 15	29·680		28. 17. 45	29·541
	27. 19. 45	29·380		27. 9. 0	29·286					30. 22. 5	29·442
	31. 10. 15	30·537		28. 13. 40	29·010	June	2. 21. 40	29·960	June	7. 15. 0	29·274
February	1. 0. 0	30·485		31. 22. 30	30·470		10. 23. 20	29·686		13. 3. 35	29·172
	4. 11. 0	29·972	February	3. 14. 15	29·850		18. 9. 30	29·990		20. 5. 10	29·380
	7. 19. 50	29·341		7. 3. 0	29·200		25. 2. 5	30·105		26. 17. 40	29·965
	15. 20. 35	30·273		8. 12. 45	29·178		27. 8. 45	30·048		29. 9. 0	29·797
	19. 22. 55	29·941		17. 13. 50	29·738		29. 22. 15	29·878	July	1. 3. 35	29·701
March	5. 9. 50	29·955		27. 4. 20	29·078	July	3. 0. 10	30·148		4. 16. 10	29·936
	13. 9. 0	29·921	March	9. 5. 35	29·517		5. 23. 25	30·050		7. 4. 5	29·926
	17. 9. 0	30·081		15. 2. 5	29·268		8. 6. 50	30·029		10. 13. 45	29·444
	24. 6. 5	29·459		21. 15. 50	29·083		12. 5. 45	30·062		15. 15. 40	29·798
	26. 12. 0	29·837		24. 23. 10	28·950		19. 0. 20	29·932		20. 3. 40	29·667
	28. 22. 55	29·828		27. 4. 25	29·514		21. 21. 50	29·844		24. 18. 0	29·650
	30. 9. 0	29·819		29. 16. 45	29·428		25. 9. 25	29·775		26. 20. 55	29·317
April	2. 22. 10	29·711	April	1. 15. 40	29·390		28. 23. 15	30·028		31. 5. 55	29·901
	5. 0. 10	29·820		3. 19. 10	29·521	August	1. 9. 45	30·021	August	4. 18. 10	29·680
	7. 10. 15	30·180		5. 20. 20	29·532		5. 22. 30	29·807		7. 4. 45	29·565
	13. 23. 15	29·837		12. 3. 55	29·568		9. 10. 5	29·993		10. 17. 10	29·822
	18. 9. 0	29·878		15. 15. 55	29·453		11. 23. 20	29·899		14. 3. 10	29·736
	21. 8. 55	29·903		19. 15. 20	29·666		15. 10. 55	29·859		16. 22. 10	29·510
	24. 22. 10	29·973		22. 11. 10	29·380		18. 7. 40	29·647		19. 1. 10	29·459
	29. 12. 0	30·061		26. 16. 35	29·670		22. 10. 5	30·051		24. 17. 5	29·656
							26. 5. 50	29·893		27. 14. 25	29·674

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, 1902.		Reading.	Greenwich Civil Time, 1902.		Reading.	Greenwich Civil Time, 1902.		Reading.	Greenwich Civil Time, 1902.		Reading.
	d h m	in.		d h m	in.		d h m	in		d h m	in.
August	28. 7. 10	29·784	August	30. 3. 50	29·453	November	2. 10. 45	30·118	November	1. 14. 30	29·926
	30. 23. 30	29·707		31. 15. 0	29·618		6. 6. 50	29·514		5. 16. 30	29·412
September	1. 9. 25	29·735	September	3. 7. 35	29·374		8. 2. 5	29·543		7. 3. 15	29·214
	8. 9. 0	30·091		12. 14. 40	29·496		10. 10. 5	29·732		8. 13. 5	29·216
	13. 12. 0	29·876		14. 12. 25	29·668		14. 21. 10	30·221		11. 15. 40	29·454
	15. 10. 15	29·821		16. 14. 10	29·530		17. 21. 0	30·166		16. 4. 40	30·070
	19. 11. 10	30·237		23. 12. 55	29·650		20. 23. 10	30·137		19. 14. 20	29·884
	26. 9. 45	30·302	October	1. 13. 30	29·642		27. 10. 30	29·476		25. 14. 55	29·043
October	3. 12. 0	29·962		7. 4. 40	29·626	December	1. 9. 35	29·471		28. 12. 25	29·050
	8. 10. 10	29·741		10. 4. 40	29·274		4. 22. 35	30·390	December	2. 1. 40	29·140
	12. 22. 35	30·135		14. 5. 40	29·666		11. 10. 50	30·041		9. 6. 10	29·865
	14. 21. 30	29·780		16. 4. 5	29·275		14. 2. 45	30·079		13. 5. 0	29·858
	17. 21. 20	29·633		18. 7. 15	29·373		15. 23. 5	30·087		15. 5. 40	29·733
	19. 10. 0	29·860		20. 12. 30	29·549		17. 17. 50	29·931		16. 13. 50	29·690
	21. 20. 55	29·988		22. 8. 10	29·829		19. 18. 0	30·192		18. 1. 45	29·668
	24. 9. 0	30·397		26. 16. 45	29·823		23. 10. 30	30·424		20. 13. 40	30·054
	28. 21. 40	29·990		30. 5. 20	29·864		27. 10. 5	30·029		25. 21. 0	29·894
	31. 10. 40	30·063								30. 1. 30	28·774

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 1902.
[Extracted from the preceding Table.]

MONTH, 1902.	Readings of the Barometer.		Range.
	Highest.	Lowest.	
	in.	in.	in.
January	30·700	28·972	1·728
February	30·485	29·078	1·407
March	30·081	28·950	1·131
April	30·180	29·380	0·800
May	30·286	29·107	1·179
June	30·105	29·172	0·933
July	30·148	29·317	0·831
August	30·051	29·453	0·598
September	30·302	29·374	0·928
October	30·397	29·274	1·123
November	30·221	29·043	1·178
December	30·424	28·774	1·650

The highest reading in the year was $30^{in.}·700$ on January 15. The lowest reading in the year was $28^{in.}·774$ on December 30.
The range of reading in the year was $1^{in.}·926$.

MONTHLY RESULTS of METEOROLOGICAL ELEMENTS for the YEAR 1902.

MONTH, 1902.	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 50 Years.	Mean Temperature of Evaporation.	Mean Temperature of the Dew Point.	Mean Degree of Humidity. (Saturation = 100.)
	in.	°	°	°	°	°	°	°	°	°	°	
January.....	29·981	52·7	24·7	28·0	45·7	37·2	8·5	42·0	+ 3·5	40·1	37·4	84·2
February....	29·694	54·1	14·3	39·8	40·2	30·6	9·6	35·4	− 4·1	33·9	30·9	83·3
March.....	29·678	60·5	26·6	33·9	51·9	37·4	14·4	44·6	+ 2·9	42·0	39·1	82·0
April.....	29·777	68·2	30·9	37·3	55·6	38·9	16·7	47·2	+ 0·1	43·3	38·8	73·0
May	29·794	71·0	29·8	41·2	57·3	41·2	16·1	48·7	− 4·5	45·3	41·6	77·5
June.....	29·743	80·7	41·1	39·6	66·9	49·6	17·3	57·6	− 1·8	53·6	49·9	76·1
July	29·853	86·1	42·4	43·7	71·7	51·6	20·1	60·9	− 1·5	55·6	51·0	70·5
August.....	29·756	79·0	42·8	36·2	69·5	51·7	17·8	59·7	− 1·9	55·9	52·6	78·0
September...	29·892	75·1	36·8	38·3	65·6	47·5	18·1	56·2	− 0·9	52·8	49·6	78·7
October.....	29·809	67·1	32·6	34·5	55·9	43·7	12·3	50·1	+ 0·1	47·8	45·4	84·2
November...	29·714	57·9	27·2	30·7	49·5	39·8	9·7	44·9	+ 1·7	43·2	41·1	86·9
December...	29·879	56·7	24·5	32·2	44·9	37·5	7·4	41·5	+ 1·8	39·5	36·7	83·2
Means.....	29·798	Highest. 86·1	Lowest. 14·3	Annual Range. 71·8	56·2	42·2	14·0	49·1	− 0·4	46·1	42·8	79·8

MONTH, 1902.	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.....	0·224	2·6	554	1·1	7·5	9	0·639	85	20	8	16	180	332	41	55	7	0·67	362
February....	0·173	2·1	556	1·0	7·7	13	0·792	145	108	122	71	44	93	28	21	40	0·33	235
March.....	0·238	2·7	545	2·4	7·6	15	1·356	25	15	49	31	128	279	117	56	44	0·42	288
April.....	0·236	2·7	544	1·3	7·1	7	0·416	90	138	73	42	104	136	68	36	33	0·66	315
May	0·263	3·0	543	2·6	7·9	22	3·331	209	38	29	30	30	199	83	109	17	0·32	266
June.....	0·360	4·0	532	4·3	6·6	15	3·095	73	53	166	62	68	180	75	28	15	0·18	224
July	0·374	4·2	530	1·3	6·8	12	1·094	117	41	31	33	50	228	157	63	24	0·25	250
August.....	0·397	4·4	530	2·8	7·6	19	2·931	60	43	74	50	79	261	113	31	33	0·11	204
September...	0·356	4·0	536	1·3	5·5	8	1·652	78	108	94	86	52	140	65	30	67	0·18	225
October.....	0·304	3·4	541	1·3	7·6	14	1·241	98	117	72	33	64	214	102	32	12	0·26	281
November...	0·258	3·0	545	2·2	7·3	12	1·292	23	56	201	117	156	104	45	5	13	0·16	243
December...	0·218	2·6	552	1·6	8·0	13	1·498	57	135	84	15	59	178	161	42	13	0·56	380
Sums.....	...	...	...	...	...	159	19·337	1060	872	1003	586	1014	2344	1055	508	318	...	...
Means.....	0·283	3·2	542	1·9	7·3	...	...	...	...	...	...	...	...	...	...	...	0·34	273

The greatest recorded pressure of the wind on the square foot in the year was 27·3 lbs. on April 27.
The greatest recorded daily horizontal movement of the air in the year was 819 miles on February 1.
The least recorded daily horizontal movement of the air in the year was 78 miles on March 6.

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

Hour, Greenwich Civil Time.	1902. 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	29·971	29·716	29·677	29·785	29·814	29·749	29·861	29·772	29·901	29·816	29·734	29·881	29·806
1h	29·966	29·710	29·675	29·783	29·809	29·745	29·858	29·767	29·899	29·812	29·729	29·873	29·802
2	29·967	29·706	29·668	29·780	29·803	29·742	29·854	29·762	29·895	29·804	29·727	29·870	29·798
3	29·967	29·697	29·665	29·779	29·797	29·738	29·849	29·756	29·889	29·799	29·722	29·867	29·794
4	29·963	29·695	29·663	29·777	29·794	29·740	29·847	29·751	29·885	29·795	29·716	29·864	29·791
5	29·957	29·694	29·665	29·777	29·798	29·743	29·850	29·752	29·884	29·793	29·717	29·861	29·791
6	29·960	29·693	29·672	29·781	29·802	29·745	29·853	29·755	29·890	29·792	29·716	29·862	29·793
7	29·966	29·699	29·680	29·784	29·807	29·749	29·857	29·759	29·894	29·798	29·721	29·867	29·798
8	29·976	29·705	29·686	29·787	29·810	29·750	29·860	29·762	29·899	29·804	29·726	29·874	29·803
9	29·985	29·709	29·693	29·790	29·810	29·750	29·860	29·763	29·902	29·807	29·728	29·882	29·807
10	29·992	29·709	29·695	29·787	29·809	29·751	29·858	29·764	29·902	29·809	29·727	29·892	29·808
11	29·993	29·708	29·695	29·781	29·806	29·752	29·858	29·760	29·899	29·808	29·720	29·890	29·806
Noon	29·983	29·701	29·690	29·779	29·801	29·750	29·858	29·757	29·895	29·806	29·709	29·883	29·801
13h	29·972	29·690	29·684	29·774	29·796	29·744	29·851	29·752	29·890	29·800	29·698	29·878	29·794
14	29·971	29·682	29·679	29·770	29·793	29·740	29·848	29·748	29·884	29·798	29·694	29·875	29·790
15	29·975	29·678	29·671	29·763	29·785	29·735	29·843	29·745	29·879	29·798	29·691	29·879	29·787
16	29·981	29·677	29·665	29·758	29·777	29·731	29·840	29·743	29·877	29·800	29·693	29·883	29·785
17	29·987	29·680	29·666	29·758	29·773	29·728	29·839	29·740	29·879	29·808	29·697	29·886	29·787
18	29·994	29·685	29·673	29·761	29·774	29·729	29·838	29·742	29·882	29·818	29·705	29·890	29·791
19	29·999	29·688	29·679	29·768	29·776	29·734	29·844	29·747	29·890	29·821	29·710	29·889	29·795
20	30·004	29·687	29·683	29·777	29·784	29·739	29·851	29·755	29·898	29·825	29·712	29·890	29·800
21	30·006	29·688	29·687	29·783	29·792	29·749	29·861	29·761	29·901	29·829	29·715	29·887	29·805
22	30·006	29·685	29·688	29·785	29·795	29·754	29·864	29·763	29·903	29·830	29·716	29·884	29·806
23	30·004	29·681	29·685	29·786	29·797	29·755	29·870	29·764	29·903	29·828	29·716	29·884	29·806
24	29·999	29·679	29·682	29·786	29·794	29·755	29·869	29·763	29·901	29·827	29·716	29·879	29·804
Means 0h.–23h.	29·981	29·694	29·678	29·777	29·796	29·743	29·853	29·756	29·892	29·808	29·714	29·879	29·798
Means 1h.–24h.	29·982	29·693	29·679	29·777	29·795	29·744	29·853	29·755	29·892	29·809	29·714	29·879	29·798
Number of Days employed.	31	28	31	30	29	30	31	31	30	30	30	31	...

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

Hour, Greenwich Civil Time.	1902. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	41·5	34·1	41·3	43·7	45·0	53·1	56·2	55·6	52·4	48·2	43·6	41·3	46·3
1h	41·4	33·9	41·2	43·2	44·4	52·5	55·5	55·0	52·1	47·9	43·3	41·3	46·0
2	41·4	33·8	40·8	42·8	43·8	51·9	54·9	54·8	51·6	47·7	43·3	41·0	45·7
3	41·3	33·5	40·6	42·1	43·3	51·5	54·2	54·5	51·3	47·5	43·3	41·0	45·3
4	41·0	33·2	40·6	41·8	43·2	51·3	53·8	54·4	51·2	47·4	43·3	40·9	45·2
5	40·5	33·2	40·3	41·7	43·3	51·8	54·0	54·2	51·1	47·4	43·3	40·9	45·1
6	40·4	33·1	40·5	42·0	44·2	52·9	55·1	54·8	51·3	47·4	43·2	41·0	45·5
7	40·2	33·1	41·0	43·7	45·9	54·8	57·3	56·3	52·2	47·7	43·3	41·0	46·4
8	40·1	33·2	42·1	46·0	48·2	57·6	60·0	58·7	54·3	48·4	43·6	40·9	47·8
9	40·5	33·9	43·9	48·3	49·7	60·0	62·1	61·1	56·9	49·8	44·7	41·1	49·3
10	41·5	34·9	45·6	50·0	51·2	61·3	64·0	63·0	59·5	51·6	45·9	41·6	50·8
11	42·7	36·4	47·1	51·9	52·3	62·2	65·8	63·8	60·6	53·3	47·1	42·3	52·1
Noon	43·7	38·0	48·7	52·5	52·9	62·7	66·5	64·7	62·8	53·8	47·8	42·9	53·1
13h	44·6	39·0	49·4	53·4	53·6	62·9	67·6	65·5	63·5	54·3	48·2	43·1	53·8
14	44·6	39·3	49·8	53·3	53·7	63·7	68·4	66·3	63·7	54·4	48·0	42·8	54·0
15	44·6	39·0	50·0	53·3	54·0	63·7	68·4	65·9	63·2	54·2	47·6	42·4	53·9
16	44·1	38·4	49·8	52·9	54·1	63·7	67·7	65·3	62·0	53·3	46·7	42·0	53·3
17	43·5	37·3	48·8	51·6	53·1	62·4	66·4	64·3	60·4	51·9	45·8	41·6	52·3
18	42·9	36·6	47·3	50·0	51·6	61·0	65·2	62·7	58·3	50·8	45·0	41·3	51·1
19	42·4	36·0	46·1	48·2	50·4	59·3	63·3	60·9	56·3	50·1	44·6	40·9	49·9
20	42·1	35·5	45·1	46·9	48·9	57·5	61·3	59·2	54·9	49·5	44·2	40·9	48·8
21	41·6	35·1	44·1	45·8	47·7	55·9	59·4	57·9	53·9	48·7	43·7	40·8	47·9
22	41·3	34·9	43·0	44·7	46·9	54·8	58·0	57·1	53·2	48·4	43·5	41·0	47·2
23	41·1	34·6	42·3	44·0	46·1	53·9	57·0	56·3	52·5	48·3	43·5	41·0	46·7
24	40·9	34·4	41·6	43·6	45·4	53·2	55·9	55·9	52·1	48·2	43·5	40·9	46·3
Means 0h.–23h.	42·0	35·4	44·6	47·2	48·6	57·6	60·9	59·7	56·2	50·1	44·9	41·5	49·1
Means 1h.–24h.	42·0	35·4	44·6	47·2	48·6	57·6	60·9	59·7	56·2	50·1	44·9	41·4	49·1
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.	1902. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	39·9	33·1	40·0	41·4	43·2	51·3	53·7	54·1	51·3	46·5	42·4	39·6	44·7
1h	39·7	33·0	39·9	41·0	42·7	50·9	53·2	53·6	50·9	46·4	42·2	39·7	44·4
2	39·7	32·9	39·8	40·7	42·4	50·5	52·8	53·2	50·6	46·2	42·2	39·4	44·2
3	39·6	32·7	39·5	40·3	42·0	50·3	52·4	53·0	50·2	46·1	42·2	39·5	44·0
4	39·2	32·3	39·5	40·0	41·8	50·3	52·3	52·9	50·0	46·0	42·3	39·4	43·8
5	39·0	32·2	39·3	39·9	41·9	50·6	52·3	52·7	49·9	46·0	42·3	39·4	43·8
6	38·8	32·2	39·5	40·1	42·6	51·3	53·1	53·2	50·0	46·1	42·2	39·3	44·0
7	38·6	32·1	39·9	41·1	43·6	52·4	54·2	54·3	50·7	46·3	42·2	39·3	44·6
8	38·5	32·3	40·7	42·7	44·7	53·8	55·5	55·7	52·1	46·9	42·4	39·1	45·4
9	38·9	32·9	41·7	44·0	45·6	54·9	56·4	57·0	53·7	47·9	43·2	39·3	46·3
10	39·6	33·5	42·7	44·7	46·3	55·2	57·4	57·7	54·8	49·2	43·9	39·6	47·0
11	40·5	34·7	43·6	45·8	46·7	55·6	57·9	57·9	55·5	49·9	44·6	39·9	47·7
Noon	41·2	35·7	44·6	46·2	47·3	55·7	58·1	58·3	55·8	50·0	45·0	40·2	48·2
13h	41·7	36·4	45·0	46·8	47·8	55·8	58·6	58·7	55·9	50·3	45·2	40·3	48·5
14	41·8	36·6	45·1	46·7	48·0	56·0	58·6	58·8	55·9	50·2	45·0	40·2	48·6
15	41·7	36·4	45·3	46·7	48·3	56·2	58·8	58·6	55·8	50·1	44·8	39·8	48·5
16	41·4	35·9	45·0	46·5	48·2	56·4	58·2	58·4	55·4	49·7	44·2	39·5	48·2
17	41·1	35·3	44·4	45·8	47·9	56·1	57·7	58·1	54·8	48·9	43·9	39·2	47·8
18	40·7	34·7	43·7	44·8	47·4	55·5	57·1	57·6	53·9	48·2	43·5	39·0	47·2
19	40·4	34·5	43·1	44·0	46·8	54·7	56·7	56·9	53·3	47·7	43·1	38·9	46·7
20	40·2	34·0	42·6	43·3	46·3	54·1	55·9	56·3	52·6	47·3	42·9	38·9	46·2
21	39·9	33·8	41·9	42·7	45·6	53·2	55·2	55·6	52·0	46·9	42·5	39·0	45·7
22	39·7	33·7	41·2	41·9	44·7	52·6	54·5	55·1	51·7	46·7	42·4	39·1	45·3
23	39·5	33·5	40·9	41·6	44·0	51·9	53·9	54·6	51·2	46·6	42·3	39·3	44·9
24	39·3	33·4	40·3	41·2	43·6	51·4	53·5	54·3	50·9	46·4	42·4	39·2	44·7
Means 0h.–23h.	40·1	33·9	42·0	43·3	45·2	53·6	55·6	55·9	52·8	47·8	43·2	39·5	46·1
Means 1h.–24h.	40·1	34·0	42·0	43·3	45·3	53·6	55·6	55·9	52·8	47·8	43·2	39·4	46·1
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.	1902. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	37·9	31·4	38·3	38·7	41·1	49·5	51·3	52·7	50·2	44·7	41·0	37·5	42·9
1h	37·6	31·4	38·2	38·4	40·7	49·3	51·0	52·2	49·7	44·7	40·9	37·7	42·7
2	37·6	31·3	38·6	38·2	40·7	49·1	50·8	51·6	49·6	44·6	40·9	37·4	42·5
3	37·5	31·2	38·1	38·1	40·4	49·1	50·6	51·5	49·1	44·6	40·9	37·6	42·4
4	36·9	30·6	38·1	37·7	40·1	49·3	50·8	51·4	48·8	44·5	41·1	37·5	42·2
5	37·1	30·3	38·0	37·6	40·3	49·4	50·6	51·2	48·7	44·5	41·1	37·5	42·2
6	36·8	30·4	38·3	37·7	40·7	49·7	51·2	51·6	48·7	44·7	41·0	37·2	42·3
7	36·5	30·2	38·5	38·1	41·0	50·1	51·4	52·4	49·2	44·8	40·9	37·2	42·5
8	36·4	30·6	39·0	38·9	40·9	50·3	51·5	53·0	49·9	45·3	41·0	36·9	42·8
9	36·9	31·1	39·2	39·3	41·3	50·4	51·5	53·4	50·7	45·9	41·5	37·0	43·2
10	37·2	31·3	39·4	39·1	41·2	49·9	51·9	53·2	50·6	46·8	41·6	37·1	43·3
11	37·9	32·2	39·7	39·6	41·0	49·9	51·6	53·1	51·1	46·5	41·8	36·9	43·4
Noon	38·3	32·6	40·2	39·8	41·7	49·7	51·3	53·0	49·8	46·3	41·9	37·0	43·5
13h	38·3	33·0	40·3	40·3	42·1	49·7	51·5	53·2	49·6	46·4	41·9	37·0	43·6
14	38·5	33·1	40·1	40·2	42·4	49·6	50·9	52·7	49·4	46·1	41·7	37·1	43·5
15	38·3	33·0	40·3	40·2	42·7	50·0	51·3	52·7	49·6	46·1	41·8	36·6	43·6
16	38·2	32·6	39·9	40·1	42·4	50·3	50·7	52·8	49·7	46·1	41·4	36·4	43·4
17	38·3	32·5	39·6	39·9	42·7	50·7	50·7	52·9	49·9	45·9	41·7	36·2	43·4
18	38·1	32·0	39·7	39·3	43·1	50·7	50·5	53·3	50·0	45·5	41·7	36·1	43·3
19	38·0	32·2	39·7	39·4	43·0	50·6	51·1	53·5	50·5	45·2	41·4	36·4	43·4
20	37·9	31·7	39·7	39·2	43·5	51·0	51·3	53·7	50·4	44·9	41·4	36·4	43·4
21	37·8	31·8	39·3	39·2	43·3	50·7	51·5	53·5	50·1	45·0	41·1	36·7	43·3
22	37·7	31·7	39·0	38·6	42·2	50·5	51·3	53·3	50·2	44·9	41·1	36·7	43·1
23	37·5	31·7	39·2	38·8	41·6	50·0	51·0	53·0	49·9	44·8	40·9	37·2	43·0
24	37·3	31·7	38·7	38·4	41·5	49·6	51·2	52·8	49·7	44·4	41·1	37·1	42·8
Means 0h.–23h.	37·6	31·7	39·2	39·0	41·7	50·0	51·1	52·7	49·8	45·4	41·3	37·0	43·0
Means 1h.–24h.	37·6	31·7	39·2	39·0	41·7	50·0	51·1	52·7	49·8	45·4	41·3	37·0	43·0

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.	1902. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
Midnight	88	89	00	82	86	88	84	90	93	88	90	87	88
1h	87	90	90	83	87	89	86	91	92	89	91	88	89
2	87	90	92	84	89	90	86	89	93	90	91	87	89
3	87	91	91	86	90	92	88	89	92	90	91	88	90
4	86	90	91	86	89	93	89	90	92	90	92	88	90
5	88	89	92	87	89	92	88	90	92	90	92	88	90
6	88	90	92	86	88	90	87	89	91	91	92	86	89
7	87	89	91	80	84	84	81	87	90	90	91	86	87
8	87	90	89	77	76	77	74	82	85	89	90	86	83
9	88	89	83	71	73	71	69	77	80	87	89	86	80
10	86	86	79	66	69	67	65	71	72	84	86	85	76
11	84	85	76	63	66	64	59	68	70	78	83	82	73
Noon	81	81	72	63	66	63	59	66	63	75	81	80	71
13h	78	80	71	61	65	62	56	64	61	74	79	79	69
14	79	79	70	61	65	60	53	62	60	73	79	81	68
15	78	80	70	61	66	61	54	62	61	74	81	81	69
16	79	80	69	63	65	62	54	64	64	77	83	81	70
17	81	83	71	65	68	66	58	66	68	80	86	82	73
18	84	84	76	67	73	69	59	71	74	83	88	82	76
19	85	86	79	72	77	73	65	77	81	84	89	85	79
20	86	86	82	76	82	79	70	83	85	85	90	85	82
21	88	87	83	78	86	84	75	85	87	87	90	86	85
22	88	88	86	79	85	85	78	87	90	88	91	85	86
23	87	89	89	81	85	87	80	89	91	88	90	86	87
24	87	89	90	81	87	88	85	90	92	87	91	86	88
Means 0h.–23h.	85	86	82	74	78	77	72	79	80	84	88	85	81
Means 1h.–24h.	85	86	82	74	78	77	72	79	80	84	88	85	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 1902.

Month, 1902.	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	h		°
January	...	...	...	...	0·3	2·9	6·2	6·1	6·1	4·8	4·0	0·6	...	...	...	...	31·0	258·9	0·120	18
February	...	...	...	0·4	1·6	2·8	4·1	7·7	10·4	9·1	6·4	4·7	0·8	...	...	...	48·0	276·8	0·173	26
March	...	...	1·0	5·3	7·2	8·7	10·0	7·5	8·0	9·2	10·2	9·1	3·4	...	...	...	79·6	365·6	0·218	37
April	...	2·0	7·0	10·0	10·1	10·8	11·6	13·9	12·7	11·1	10·4	9·2	10·0	6·2	1·3	...	126·3	413·1	0·306	48
May	1·3	5·9	12·1	13·4	12·7	13·3	13·3	11·6	11·8	10·6	11·9	10·6	11·2	7·2	4·5	0·4	151·8	481·1	0·316	57
June	4·7	10·3	13·0	14·4	14·9	14·2	12·9	13·5	12·6	13·1	14·2	13·9	10·8	10·1	8·9	3·1	184·6	494·3	0·373	62
July	4·2	13·3	16·4	15·7	12·9	15·3	17·0	15·8	16·0	15·7	13·5	14·5	11·1	12·4	6·4	1·1	201·3	498·0	0·404	60
August	0·1	1·9	6·7	8·7	10·3	9·5	9·1	8·9	10·8	13·7	11·1	10·2	10·0	10·3	2·9	0·2	124·4	450·9	0·276	52
September	...	0·1	2·2	6·8	11·8	14·1	16·1	17·2	18·3	18·4	17·1	14·0	10·4	3·1	...	...	149·6	379·3	0·394	41
October	...	...	...	1·6	4·8	6·2	7·6	6·2	6·1	6·1	5·7	4·9	0·7	...	...	...	49·9	330·5	0·151	30
November	...	...	...	...	3·0	6·6	8·8	8·9	7·7	7·3	6·3	3·3	...	...	...	...	51·9	266·0	0·195	20
December	...	...	...	...	...	3·2	6·6	6·3	5·0	3·4	4·4	1·0	...	...	...	...	29·9	244·2	0·122	16
For the Year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1228·3	4458·7	0·275	...

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 1902.

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

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

JANUARY.

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

READINGS of DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; 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	40·0	32·3	34·1	36·9	37·1	33·5	+0·6	−0·4	−0·2	−0·4	−0·5	−0·1	1	39·4	31·0	34·1	36·7	37·2	33·1	0·0	−1·7	−0·2	−0·6	−0·4	−0·5
2	33·5	30·9	...	...	...	...	−0·2	+0·4	...	...	...	...	2	33·1	29·9	...	...	...	...	−0·6	−0·6	...	...	...	...
3	34·7	32·0	32·0	32·7	33·6	34·5	0·0	+0·2	+0·2	−0·1	−0·4	0·0	3	34·5	31·1	32·0	32·7	33·4	34·1	−0·2	−0·7	+0·2	−0·1	−0·6	−0·4
4	35·0	32·3	34·2	34·9	34·4	32·7	0·0	−0·3	−0·1	−0·1	−0·2	0·0	4	35·0	30·9	33·9	34·9	34·0	32·5	0·0	−1·7	−0·4	−0·1	−0·6	−0·2
5	35·0	31·5	32·0	33·9	34·1	32·8	+0·1	+0·1	−0·2	0·0	−0·1	0·0	5	35·0	30·9	32·0	32·7	34·2	32·5	+0·1	−0·5	−0·2	−1·2	0·0	−0·3
6	39·7	32·8	33·8	37·8	37·9	35·0	−1·3	+0·3	−0·2	−0·1	−0·4	−0·4	6	41·3	31·6	34·0	38·5	38·3	35·0	+0·3	−0·9	0·0	+0·6	0·0	−0·4
7	37·6	32·4	33·3	36·1	37·5	34·4	−0·7	−0·1	+0·4	0·0	0·0	+0·7	7	38·5	31·9	33·1	35·8	37·8	34·5	+0·2	−0·6	+0·2	−0·3	+0·3	+0·8
8	37·2	32·3	34·8	34·5	36·4	37·0	+0·2	+0·3	+0·1	+0·1	+0·6	+0·7	8	37·3	31·5	34·9	34·4	36·7	37·0	+0·3	−0·5	+0·2	0·0	+0·9	+0·7
9	38·0	30·9	...	...	...	...	+0·3	+0·3	...	...	...	...	9	37·8	29·9	...	...	...	...	+0·1	−0·7	...	...	...	...
10	34·9	27·4	30·1	32·7	33·0	32·9	+0·2	+0·3	+0·3	−0·3	+0·2	+0·7	10	34·5	25·9	29·7	32·2	33·4	32·2	−0·2	−1·2	−0·1	−0·8	+0·6	0·0
11	40·0	25·3	28·4	36·9	40·0	32·7	+0·2	+0·3	−1·3	+0·1	+0·7	+0·1	11	40·0	23·9	28·5	37·1	40·0	32·4	+0·2	−1·1	−1·2	+0·3	+0·7	−0·2
12	35·1	26·0	27·5	33·8	35·1	27·0	−0·8	+1·8	+0·3	+0·3	−0·4	+2·2	12	35·5	24·4	26·8	33·6	34·8	28·2	−0·4	+0·2	−0·4	+0·1	−0·7	+3·4
13	36·8	22·3	26·0	36·0	36·7	30·7	−0·9	+3·3	−0·8	+0·7	+1·1	+0·1	13	37·5	20·9	26·5	35·2	36·5	30·5	−0·2	+1·9	−0·3	−0·1	+0·9	−0·1
14	33·5	27·3	27·9	30·1	32·8	31·3	0·0	0·0	+0·2	−0·2	0·0	0·0	14	33·4	26·9	27·4	30·0	33·0	31·3	−0·1	−0·4	−0·3	−0·3	+0·2	0·0
15	34·9	26·2	33·3	33·7	31·7	26·7	0·0	+2·2	0·0	−0·1	−0·1	+1·9	15	34·4	23·4	32·5	33·2	31·5	25·1	−0·5	−0·6	−0·8	−0·6	−0·3	+0·3
16	34·8	15·5	...	...	...	...	−0·1	+1·2	...	...	...	...	16	36·0	14·9	...	...	...	...	+1·1	+0·6	...	...	...	...
17	38·8	21·8	24·9	37·2	38·4	31·1	−0·2	+1·7	0·0	+0·2	−0·1	−0·1	17	39·6	19·9	25·7	36·8	38·7	31·1	+0·6	−0·2	+0·8	−0·2	+0·2	−0·1
18	36·0	30·9	33·0	34·4	35·5	35·2	−0·1	−0·3	−0·3	−0·5	−0·2	−0·2	18	36·3	30·8	33·1	34·5	35·3	35·1	+0·2	−0·4	−0·2	−0·4	−0·4	−0·3
19	36·0	32·3	33·2	34·9	33·9	34·8	+0·1	−0·2	−0·6	+0·6	0·0	0·0	19	35·4	31·9	33·8	35·2	34·3	34·8	−0·5	−0·6	0·0	+0·9	+0·4	0·0
20	36·0	32·5	33·7	33·9	35·9	35·3	−0·3	−0·4	0·0	0·0	−0·2	−0·1	20	36·2	32·2	33·5	33·9	36·2	35·2	−0·1	−0·7	−0·2	0·0	+0·1	−0·2
21	49·9	29·7	31·0	40·1	48·6	40·5	0·0	+0·4	−0·4	+0·4	+1·4	+1·3	21	50·5	29·1	31·5	40·6	48·8	41·2	+0·6	−0·2	+0·1	+0·9	+1·6	+2·0
22	50·3	34·3	38·0	45·1	48·9	41·6	+0·1	+1·0	+0·3	−1·1	+0·2	+0·5	22	51·2	34·0	38·5	46·0	49·7	41·7	+1·0	+0·7	+0·8	−0·2	+1·0	+0·6
23	50·0	41·3	...	...	...	...	−0·3	+0·4	...	...	...	...	23	51·2	41·0	...	...	...	...	+0·9	+0·1	...	...	...	...
24	47·7	42·5	43·8	43·7	44·1	43·2	+0·6	+0·1	+0·1	−0·2	−0·2	−0·1	24	47·6	42·3	43·9	43·8	44·1	43·0	+0·5	−0·1	+0·2	−0·1	−0·2	−0·3
25	47·0	38·4	42·1	45·0	45·9	39·0	−0·6	−0·2	−0·4	−0·3	+0·2	0·0	25	49·0	37·3	42·1	46·6	46·3	38·1	+1·4	−1·3	−0·4	+1·3	+0·6	−0·9
26	46·0	35·4	37·8	44·6	43·7	43·0	−0·4	0·0	0·0	−0·9	+0·1	+0·3	26	47·9	34·6	38·0	44·5	44·4	42·8	+1·5	−0·8	+0·2	−1·0	+0·8	+0·1
27	51·9	42·4	45·6	51·9	49·0	45·5	+0·1	+0·2	−0·2	+0·1	−0·3	0·0	27	51·7	41·9	46·0	51·7	49·0	45·3	−0·1	−0·3	+0·2	−0·1	−0·3	−0·2
28	52·8	43·4	47·3	50·3	52·2	43·9	−1·3	+2·0	−0·6	−0·5	−0·2	+2·4	28	53·9	42·3	47·7	50·7	52·8	43·4	−0·2	+0·9	−0·2	−0·1	+0·4	+1·9
Means.	40·1	31·5	34·1	38·0	39·0	35·6	−0·2	+0·5	−0·1	−0·1	0·0	+0·4	Means.	40·5	30·6	34·1	38·0	39·2	35·4	+0·2	−0·4	−0·1	−0·1	+0·2	+0·2

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

READINGS of DRY-BULB THERMOMETERS in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; 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	55·8	46·3	49·9	51·0	53·2	47·1	−0·1	+0·2	+0·1	+0·1	0·0	+0·1	1	56·5	45·6	50·0	51·3	53·5	46·8	+0·6	−0·5	+0·2	+0·4	+0·3	−0·2
2	50·9	39·1	45·8	50·9	49·1	43·3	+0·9	+1·4	+1·3	+1·5	+0·1	−0·2	2	50·3	37·2	44·8	48·1	48·9	42·9	+0·3	−0·5	+0·3	−1·3	−0·1	−0·6
3	53·4	36·8	43·3	50·0	53·4	44·1	+0·3	+1·3	−0·5	+0·1	+0·5	−0·5	3	53·7	35·7	44·0	50·7	53·6	43·8	+0·6	+0·2	+0·2	+0·8	+0·7	−0·8
4	52·9	34·8	44·7	50·6	52·1	45·6	+0·4	+0·3	−0·1	+1·4	+0·4	+0·2	4	52·9	33·7	44·4	50·8	52·5	45·2	+0·4	−0·8	−0·4	+1·6	+0·8	−0·2
5	51·0	39·3	45·1	48·1	50·3	44·1	−1·0	+0·7	−0·6	−0·1	−0·2	−0·6	5	51·5	38·1	45·5	48·4	50·3	43·9	−0·5	−0·5	−0·2	+0·2	−0·2	−0·8
6	47·6	37·5	...	...	...	...	−0·9	+0·1	...	...	...	...	6	47·8	36·6	...	....	...	...	−0·7	−0·8	...	...	...	...
7	45·1	32·5	41·0	43·0	44·5	41·0	−0·6	+1·6	−0·2	0·0	0·0	−0·1	7	46·3	30·6	41·4	44·1	45·0	40·8	+0·6	−0·3	+0 2	+1·1	+0·5	−0·3
8	44·0	37·3	40·3	41·1	43·7	37·8	−0·6	+0·1	0·0	−0·4	+0·7	+0·4	8	45·6	36·1	40·3	41·9	44·1	36·9	+1·0	−1·1	0·0	+0·4	+1·1	−0·5
9	46·3	34·8	41·4	44·9	44·7	39·3	−1·6	+0·5	−0·4	−0·2	−1·0	0·0	9	48·2	32·8	42·2	46·2	47·0	39·0	+0·3	−1·5	+0·4	+1·1	+1·3	−0·3
10	46·0	36·5	40·8	44·9	46·0	37·0	−0·9	−0·1	−0·3	−0·1	−0·6	+0·3	10	46·9	35·9	40·9	45·1	46·5	36 4	0·0	−0·7	−0·2	+0·1	−0·1	−0·3
11	47·2	35·3	44·8	47·0	44·9	41·3	−0·4	−0·1	0·0	−0·2	+0·1	−0·1	11	47·8	34·2	45·0	47·1	45·0	41·1	+0·2	−1·2	+0·2	−0·1	+0·2	−0·3
12	51·9	40·3	42·9	50·2	51·9	44·9	−0·4	+0·1	−0·7	−0·4	+0·2	+2·4	12	53·5	39·3	43·9	52·5	52·3	44·8	+1·2	−0·9	+0·3	+1·9	+0·6	+2·3
13	57·0	37·3	...	...	...	...	−3·5	−0·1	...	...	...	...	13	58·1	36·0	...	...	...	...	−2·4	−1·4	...	...	...	...
14	54·5	33·8	47·9	54·3	52·9	43·1	−0·5	+1·7	−0·6	−0·1	−0·4	+0·2	14	56·6	32·2	48·3	55·2	54·4	43·0	+1·6	+0·1	−0·2	+0·8	+1·1	+0·1
15	6c·5	42·3	48·9	55·0	58·1	47·5	−0·9	0·0	−0·3	−0·5	−0·3	0·0	15	61·6	42·1	49·0	56·1	58·9	47·3	+0·2	−0·2	−0·2	+0·6	+0·5	−0·2
16	58·0	44·3	49·0	54·5	57·8	53·4	0 0	+0·4	−0·7	−0·1	+0·2	+1·7	16	58·5	43·1	49·1	54·7	58·0	53·6	+0·5	−0·8	−0·6	+0·1	+0·4	+1·9
17	60·7	43·3	47·7	51·7	57·6	52·7	+0·2	+3·1	0·0	+0·7	+0·4	+0·1	17	60·7	41·2	47·9	52·0	57·9	52·2	+0·2	+1·0	+0·2	+1·0	+0·7	−0·4
18	59·0	40·3	50·3	59·0	57·2	49·6	−1·0	+2·4	+0·3	+0·3	−0·1	+3·2	18	61·3	39·2	50·4	60·0	58·3	49·0	+1·5	+1·3	+0·4	+1·3	+1·0	+2·6
19	68·1	40·3	57·1	66·2	66·1	56·9	−0·1	+2·0	0·0	−0·1	−0·1	+0·2	19	68 6	38·0	58·1	66·3	67·0	57·0	+0·4	−0·3	+1·0	0·0	+0·8	+0·3
20	62·3	46·0	...	...	...	...	−0·7	+1·2	...	...	...	...	20	63·5	45·0	...	...	...	...	+0·5	+0·2	...	...	...	...
21	61·0	47·1	53·8	59·0	59·0	53·2	−1·0	+0·9	0·0	−0·5	−0·4	+0·3	21	62·1	45·8	54·6	59·1	59·3	53·0	+0·1	−0·4	+0·8	−0·4	−0·1	+0·1
22	57·5	49·0	54·5	53·4	57·1	49·5	−0·7	+0·1	−0·4	−0·3	+0·4	+0·6	22	58·4	48·2	55·2	53·8	57·6	49·0	+0·2	−0·7	+0·3	+0·1	+0·9	+0·1
23	60·0	43·4	54·3	58·0	59·5	48·5	−2·2	+0·9	+1·0	+1·3	+0·4	+1·6	23	61·4	42·1	55·4	57·7	59·4	47·8	−0·8	−0·4	+2·1	+1·0	+0·3	+0·9
24	65·1	42·4	56·6	60·2	63·5	52·2	+0·1	+2·1	−0·9	−0·7	+0·8	+0·4	24	66·6	41·1	57·7	62·2	64·8	52·0	+1·6	+0·8	+0·2	+1·3	+2·1	+0·2
25	64·1	41·4	59·7	63·9	59·2	49·7	−1·6	+3·2	+0·1	−1·8	0·0	+0·2	25	66·3	40·1	60·1	65·0	59·4	49·0	+0·6	+1·9	+0·5	−0·7	+0·2	−0·5
26	54·1	42·3	45·9	52·8	50·0	45·9	−1·9	0·0	−0·1	−0·9	+0·1	+0·2	26	55·8	42·1	46·7	53·7	49·8	45·7	−0·2	−0·2	+0·7	0·0	−0·1	0·0
27	55·4	42·7	...	...	...	...	−0·6	+0·3	...	...	...	...	27	56·6	41·3	...	...	...	...	+0·6	−1·1	...	...	...	...
28	52·0	39·9	47·0	50·9	52·0	40·9	−0·6	+0·4	−0·7	−1·0	+0·7	+0·6	28	53·8	38 0	48·0	52·2	52·6	40·3	+1·2	−1·5	+0·3	+0·3	+1·3	0·0
29	51·3	36·3	45·7	48·0	51·1	48·6	−0·4	+1·0	−1·5	+0·6	0·0	+0·8	29	51·4	34·2	45·8	48·2	51·4	48·0	−0·3	−1·1	−1·4	+0·8	+0·3	+0·2
30	55·1	40·8	49·9	54·7	52·9	49·6	−0·3	−0·3	−0·4	+0·4	+0·2	−0·1	30	55·9	40·0	50·2	55·1	53·1	49 6	+0·5	−1·1	−0·1	+0·8	+0·4	−0·1
Means.	54·9	40·1	48·0	52·4	53·4	46·4	−0·7	+0·8	−0·2	0·0	+0·1	+0·5	Means.	55·9	38·9	48·4	53·0	53·9	46·1	+0·3	−0·4	+0·2	+0·5	+0·6	+0·1

READINGS of DRY-BULB THERMOMETERS, in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; 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	56·0	42·5	49·5	54·7	51·6	43·8	0·0	+2·7	−0·7	−1·1	+0·4	+4·0	1	55·9	41·0	49·8	54·3	51·1	42·3	−0·1	+1·2	−0·4	−1·5	−0·1	+2·5
2	56·5	37·2	44·2	53·1	54·1	47·5	−0·8	+3·3	−0·6	−0·4	+0·2	−0·2	2	57·1	35·0	45·0	53·6	54·4	47·1	−0·2	+1·1	+0·2	+0·1	+0·5	−0·6
3	56·4	40·3	50·0	53·9	49·3	45·7	0·0	−0·2	0·0	+0·2	+1·2	0·0	3	56·5	39·0	50·8	54·3	49·3	45·2	+0·1	−1·5	+0·8	+0·6	+1·2	−0·5
4	53·6	39·4	...	...	..	...	−0·3	+0·4	...	...	...	...	4	54·5	38·0	...	...	...	...	+0·6	−1·0	...	...	...	...
5	52·0	36·3	45·1	47·7	48·7	40·3	−0·7	+0·1	−0·2	−0·1	0·0	+0·6	5	52·6	35·1	45·7	46·4	49·7	40·0	−0·1	−1·1	+0·4	−1·4	+1·0	+0·3
6	49·0	34·5	41·5	46·8	48·9	40·5	−0·2	0·0	+0·7	+0·1	+0·5	+0·1	6	49·6	32·9	41·9	47·3	49·3	40·1	+0·4	−1·6	+1·1	+0·6	+0·9	−0·3
7	50·4	35·3	41·4	42·5	42·9	41·0	−1·6	+0·1	+0·5	−0·2	0·0	+0·3	7	51·5	34·2	41·7	41·1	43·2	40·1	−0·5	−1·0	+0·8	−1·6	+0·3	−0·6
8	49·0	38·9	42·9	42·0	45·3	42·2	−1·9	+0·4	−0·1	−0·1	−1·5	+0·2	8	51·4	37·0	41·2	42·2	45·7	41·9	+0·5	−1·5	−1·8	+0·1	−1·1	−0·1
9	50·3	37·1	44·7	46·1	48·9	42·4	−1·3	+0·1	−0·1	−0·1	+1·4	+0·3	9	52·0	35·1	44·8	45·9	47·8	41·7	+0·4	−1·9	0·0	−0·3	+0·3	−0·4
10	51·0	35·0	44·2	48·0	49·2	40·3	−1·0	+0·7	−0·3	+0·3	−0·5	+0·8	10	50·9	33·8	43·8	47·6	49·4	39·4	−1·1	−0·5	−0·7	−0·1	−0·3	−0·1
11	50·5	38·9	...	...	...	...	−0·2	+1·4	...	...	...	...	11	50·8	37·3	...	...	...	...	+0·1	−0·2	...	...	...	...
12	52·8	41·5	44·8	42·9	49·0	43·1	−0·9	+1·3	−0·3	0·0	−0·1	+0·2	12	53·0	41·0	45·4	42·6	49·0	43·0	−0·7	+0·8	+0·3	−0·3	−0·1	+0·1
13	47·2	36·3	46·9	44·0	42·9	40·1	−1·7	+0·1	+2·0	+0·7	−0·1	+0·4	13	47·8	34·1	46·1	44·5	43·4	39·0	−1·1	−2·1	+1·2	+1·2	+0·4	−0·7
14	52·1	32·5	44·9	49·9	48·1	40·3	+0·1	+2·7	+0·5	+0·4	+0·6	+1·7	14	52·9	31·0	44·8	50·3	48·4	39·8	+0·9	+1·2	+0·4	+0·8	+0·9	+1·2
15	54·2	35·3	42·9	44·5	52·8	51·5	−0·8	+2·3	−0·4	−0·2	−0·1	−0·2	15	54·8	34·6	43·2	44·9	53·7	51·1	−0·2	+1·6	−0·1	+0·2	+0·8	−0·6
16	54·9	48·2	51·1	54·0	51·1	53·2	−0·6	0·0	+0·1	+0·3	−0·4	−0·1	16	55·9	47·4	51·5	54·2	51·3	53·2	+0·4	−0·8	+0·5	+0·5	−0·2	−0·1
17	58·0	44·0	52·9	57·2	51·2	44·4	−0·3	−0·4	+0·7	+0·4	−0·5	−0·4	17	59·0	42·2	53·0	58·4	51·6	44·0	+0·7	−2·2	+0·8	+1·6	−0·1	−0·8
18	55·2	42·3	...	...	...	...	−0·6	+0·1	...	...	...	...	18	56·4	41·1	...	...	...	...	+0·6	−1·1	...	...	...	...
19	54·9	41·2	...	...	...	...	+1·8	+0·3	...	...	...	...	19	52·3	39·5	...	...	...	...	−0·8	−1·4	...	...	...	...
20	48·0	40·5	46·1	46·2	45·9	46·1	0·0	+0·3	+0·6	−0·1	+0·4	+0·4	20	47·8	39·0	46·9	47·0	46·3	45·5	−0·2	−1·2	+1·4	+0·7	+0·8	−0·2
21	54·2	41·7	51·0	51·8	53·1	47·5	−0·8	−0·1	+2·3	+0·1	+0·4	+1·0	21	54·3	41·4	48·0	52·2	53·4	47·0	−0·7	−0·4	−0·7	+0·5	+0·7	+0·5
22	55·3	42·9	52·7	55·0	51·0	49·5	−0·7	+2·4	0·0	−0·5	−0·2	+0·1	22	56·7	41·9	53·9	55·9	50·9	49·1	+0·7	+1·4	+1·2	+0·4	−0·3	−0·3
23	59·9	48·5	52·0	57·6	59·7	58·9	−1·2	−0·2	−0·3	−1·2	+0·4	+0·1	23	61·0	48·2	53·0	59·0	60·3	58·9	−0·1	−0·5	+0·7	+0·2	+1·0	+0·1
24	68·2	49·8	61·2	64·3	65·4	59·9	+0·3	−0·3	+0·4	+0·5	−1·4	+1·2	24	68·5	49·1	61·6	64·9	65·9	60·3	+0·6	−1·0	+0·8	+1·1	−0·9	+1·6
25	66·4	52·3	...	...	...	...	−0·7	0·0	..	...	...	...	25	68·3	51·3	...	...	...	...	+1·2	−1·0	...	...	...	...
26	68·0	47·9	57·9	60·5	66·4	59·5	+0·1	+3·9	+0·1	0·0	0·0	0·0	26	70·5	47·3	58·3	61·9	67·8	58·7	+2·6	+3·3	+0·5	+1·4	+1·4	−0·8
27	70·3	48·4	62·9	67·1	69·5	56·5	+0·2	−0·2	−0·2	+0·1	−0·2	−0·2	27	72·2	47·8	62·7	67·6	70·4	56·0	+2·1	−0·8	−0·4	+0·6	+0·7	−0·7
28	68·0	47·5	62·2	67·1	61·7	53·3	−0·2	+0·1	+1·2	+1·2	+0·2	+0·1	28	68·9	46·3	62·6	67·7	62·7	53·0	+0·7	−1·1	+1·6	+1·8	+1·2	−0·2
29	63·1	50·2	56·5	63·1	59·8	51·8	−0·6	+0·4	+0·9	+1·8	+0·2	+0·3	29	65·1	49·6	57·4	64·7	60·3	51·3	+1·4	−0·2	+1·8	+3·4	+0·7	−0·2
30	64·5	47·1	51·9	58·0	64·5	57·9	−1·7	0·0	+0·3	−2·0	−0·9	+0·1	30	67·3	46·3	51·3	61·0	64·4	57·7	+1·1	−0·8	−0·3	+1·0	−1·0	−0·1
31	70·4	54·6	60·3	66·7	68·0	60·3	−0·6	+0·1	−2·1	−0·6	−2·5	−0·2	31	72·3	54·2	61·8	67·2	69·2	60·0	+1·3	−0·3	−0·6	−0·1	−1·3	−0·5
Means	56·8	42·2	50·1	53·3	53·8	48·4	−0·5	+0·7	+0·2	0·0	−0·1	+0·4	Means	57·7	41·0	50·2	53·7	54·2	47·9	+0·3	−0·5	+0·4	+0·4	+0·3	−0·1

READINGS of DRY-BULB THERMOMETERS, in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; 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	72·0	55·3	...	...	...	...	−1·9	0·0	...	...	...	...	1	75·8	54·6	...	...	...	...	+1·9	−0·7	...	...	...	...
2	70·1	51·5	56·0	65·3	70·0	56·9	−0·5	+0·3	0·0	−0·1	+1·8	+0·3	2	73·9	51·1	58·0	66·6	71·2	56·0	+3·3	−0·1	+2·0	+1·2	+3·0	−0·6
3	77·0	50·5	59·6	72·9	76·9	66·4	−0·1	+1·1	−2·1	+0·6	+1·0	+0·3	3	80·6	48·8	62·2	74·0	79·3	66·1	+3·5	−0·6	+0·5	+1·7	+3·4	0·0
4	66·4	54·5	55·8	56·1	60·4	56·0	+0·3	+0·2	0·0	−0·1	−0·5	+0·2	4	66·3	54·3	55·9	56·1	58·7	55·2	+0·2	0·0	+0·1	−0·1	−2·2	−0·6
5	65·2	52·2	59·2	63·8	61·4	56·8	−0·8	+0·1	+0·5	+1·3	+0·6	+0·5	5	66·8	51·4	60·6	64·0	61·1	56·1	+0·8	−0·7	+1·9	+1·5	+0·3	−0·2
6	57·9	49·0	56·7	54·6	57·8	55·8	−1·1	−0·1	+0·7	+0·2	−0·8	+0·1	6	58·7	47·9	57·8	55·2	58·2	55·3	−0·3	−1·2	+1·8	+0·8	−0·4	−0·4
7	58·9	47·9	55·1	54·9	51·4	48·2	−2·1	+0·1	−0·6	+0·9	−0·3	+0·4	7	61·2	46·3	55·8	56·0	51·1	47·3	+0·2	−1·5	+0·1	+2·0	−0·6	−0·5
8	56·7	46·3	...	...	...	...	−0·7	+0·2	...	...	...	...	8	56·8	45·1	...	...	...	...	−0·6	−1·0	...	...	...	...
9	55·7	44·6	48·6	50·6	55·7	47·1	−0·3	+0·4	+0·3	−0·2	+0·8	+0·2	9	54·7	43·7	48·0	50·3	54·3	47·0	−1·3	−0·5	−0·3	−0·5	−0·6	+0·1
10	57·1	41·5	51·2	52·3	55·6	48·2	−1·0	+0·4	+0·4	+1·0	+1·6	+1·3	10	57·0	39·8	50·1	52·0	55·9	48·0	−1·1	−1·3	−0·7	+0·7	+1·9	+1·1
11	60·8	43·5	54·8	58·5	57·9	50·8	−0·8	+1·3	−0·7	0·0	+0·3	+1·1	11	62·7	42·2	56·1	59·9	58·5	50·1	+1·1	0·0	+0·6	+1·4	+0·9	+0·4
12	56·0	48·5	53·1	53·1	55·5	53·0	−0·1	+0·3	−0·4	−0·5	+0·1	+0·3	12	56·2	47·9	53·8	53·6	56·0	52·7	+0·1	−0·3	+0·3	0·0	+0·6	0·0
13	53·9	50·0	52·8	53·5	52·1	50·3	−0·9	−0·3	−0·3	−0·4	−0·3	−0·2	13	54·6	49·3	53·0	53·9	52·4	49·8	−0·2	−1·0	−0·1	0·0	0·0	−0·7
14	54·1	47·3	49·5	49·2	51·8	47·9	−0·9	+0·1	−0·2	−0·4	+0·2	+0·2	14	55·5	46·0	49·0	49·4	51·7	47·5	+0·5	−1·2	−0·7	−0·2	+0·1	−0·2
15	58·8	46·3	...	...	...	...	−1·4	−0·2	...	...	...	...	15	61·0	45·8	...	...	...	...	+0·8	−0·7	...	...	...	...
16	59·0	48·2	52·1	50·9	53·5	52·2	−2·0	+0·7	−1·0	−0·5	+0·5	−0·1	16	61·7	47·3	53·7	51·3	53·7	52·0	+0·7	−0·2	+0·6	−0·1	+0·7	−0·3
17	59·6	44·6	55·6	57·9	58·7	53·1	−2·1	0·0	+0·2	−0·6	−0·7	+0·6	17	60·5	43·9	55·4	58·3	59·4	53·0	−1·2	−0·7	0·0	−0·2	0·0	+0·5
18	64·7	48·9	57·3	60·9	62·7	53·6	+1·5	+1·5	+1·2	+0·4	−0·2	+0·9	18	66·5	47·4	58·0	61·3	63·4	52·2	+3·3	0·0	+1·9	+0·8	+0·5	−0·5
19	71·4	47·1	65·0	67·9	69·8	59·4	−1·4	+2·2	−0·9	−0·9	−0·8	−0·1	19	73·2	45·1	66·6	68·2	71·0	59·1	+0·4	+0·2	+0·7	−0·6	+0·4	−0·4
20	62·1	54·5	57·9	54·9	59·7	57·0	−1·3	+0·1	−0·3	+0·1	−0·1	+0·9	20	64·1	55·2	58·3	55·2	62·0	56·2	+0·7	+0·8	+0·1	+0·4	+2·2	+0·1
21	71·3	51·9	58·9	70·0	63·4	59·0	0·0	+1·1	+0·1	+1·4	−0·3	+0·3	21	71·7	50·2	61·0	70·7	63·6	58·1	+0·4	−0·6	+2·2	+2·1	−0·1	−0·6
22	70·3	50·1	...	...	...	...	0·0	+0·1	...	...	...	...	22	71·6	48·4	...	...	...	...	+1·3	−1·6	...	...	...	...
23	73·0	54·9	67·9	70·3	70·5	64·9	−1·1	+0·7	+0·9	+0·3	−0·7	+2·1	23	75·6	54·4	69·1	74·2	71·4	65·0	+1·5	+0·2	+2·1	+4·2	+0·2	+2·2
24	79·2	55·6	72·0	77·6	79·2	66·5	−0·1	+1·9	−0·2	+0·5	+1·0	+2·3	24	82·0	55·2	73·4	77·0	81·2	67·5	+2·7	+1·5	+1·2	−0·1	+3·0	+3·3
25	69·0	55·5	67·8	68·1	67·9	59·2	0·0	+0·3	+1·8	0·0	+0·3	+0·4	25	70·7	55·2	69·0	69·7	69·3	58·6	+1·7	0·0	+3·0	+1·6	+1·7	−0·2
26	72·1	54·3	...	...	...	...	−0·5	+0·7	...	...	...	...	26	73·9	53·2	...	...	...	...	+1·3	−0·4	...	...	...	...
27	77·0	54·3	...	...	...	...	0·0	+2·0	...	...	...	...	27	79·2	52·3	...	...	...	...	+2·2	0·0	...	...	...	...
28	79·7	55·3	75·9	79·7	78·8	65·7	−0·3	+1·3	+1·1	+0·8	+0·6	+1·3	28	81·5	53·6	76·2	80·0	79·0	65·0	+1·5	−0·4	+1·4	+1·1	+0·8	+0·6
29	81·0	58·5	...	...	...	...	+0·4	+1·3	...	...	...	...	29	82·4	57·3	...	...	..	...	+1·8	+0·1	...	...	...	...
30	81·2	54·5	71·0	79·1	81·2	62·5	+0·5	+1·5	+0·9	+2·9	+3·7	+0·4	30	84·6	53·4	73·0	79·2	82·0	62·1	+3·9	+0·4	+2·9	+3·0	+4·5	0·0
Means	66·4	50·6	58·9	61·8	63·1	56·1	−0·6	+0·6	+0·1	+0·3	+0·3	+0·6	Means	68·0	49·5	59·7	62·4	63·7	55·6	+1·0	−0·4	+0·9	+0·9	+0·9	+0·1

READINGS of DRY-BULB THERMOMETERS, in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; 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	71·9	55·4	58·6	64·1	71·9	55·5	−1·2	+0·2	0·0	0·0	+0·6	+0·3	1	74·0	54·3	59·2	65·0	72·9	54·4	+0·9	−0·9	+0·6	+0·9	+1·6	−0·8
2	60·5	49·8	54·4	57·1	60·0	54·6	−1·6	+0·5	+0·7	+0·7	+0·6	+0·9	2	60·4	49·0	54·3	58·2	59·5	53·1	−1·7	−0·3	+0·6	+1·8	+0·1	−0·6
3	66·3	47·5	60·7	63·6	64·9	56·0	−1·7	+2·3	−2·1	−0·1	+0·3	+0·9	3	69·2	45·8	63·2	65·7	66·3	55·3	+1·2	+0·6	+0·4	+2·0	+1·7	+0·2
4	75·6	48·3	64·3	72·9	74·6	67·9	−1·1	+1·7	+1·4	+0·3	+0·1	−0·1	4	77·3	47·2	64·8	74·0	76·0	67·7	+0·6	+0·6	+1·9	+1·4	+1·5	−0·3
5	76·5	59·5	67·9	72·0	76·1	63·7	−0·4	+0·2	+0·5	+0·3	+1·1	+1·0	5	78·3	59·3	69·0	73·5	78·0	63·3	+1·4	0·0	+1·6	+1·8	+3·0	+0·6
6	80·3	57·3	...	...	...	...	−2·9	+0·1	...	...	...	...	6	84·9	57·4	...	...	...	...	+1·7	+0·2	...	...	...	...
7	80·1	58·2	73·0	78·7	79·0	70·6	−1·0	0·0	+0·6	+0·6	+0·2	+3·4	7	83·2	58·2	74·1	80·4	82·0	69·7	+2·1	0·0	+1·7	+2·3	+3·2	+2·5
8	82·5	57·3	68·8	75·1	82·3	71·9	−1·0	+2·7	0·0	+0·9	+0·5	+0·2	8	85·0	56·0	70·4	75·3	84·3	71·1	+1·5	+1·4	+1·6	+1·1	+2·5	−0·6
9	74·7	56·8	65·0	69·2	69·4	56·9	−0·5	−0·5	+0·1	+0·1	−0·1	−0·4	9	75·5	55·5	65·9	70·6	69·8	56·3	+0·3	−1·8	+1·0	+1·5	+0·3	−1·0
10	65·0	53·1	59·4	59·1	60·4	55·1	−1·6	−0·9	−0·2	+0·1	−0·7	+0·1	10	65·8	51·9	60·1	59·0	59·1	55·0	−0·8	−2·1	+0·5	0·0	−2·0	0·0
11	64·0	51·8	59·0	60·8	61·0	53·9	−0·4	+0·8	−0·1	+1·6	+1·1	+2·6	11	65·2	51·2	60·2	61·7	60·9	52·3	+0·8	+0·2	+1·1	+2·5	+1·0	+1·0
12	70·6	45·3	61·1	67·2	70·0	58·1	−2·3	+2·9	+1·0	+1·7	+0·9	+0·4	12	73·5	43·8	62·0	69·0	70·5	57·2	+0·6	+1·4	+1·9	+3·5	+1·4	−0·5
13	82·5	53·3	...	...	...	...	+1·5	+0·2	...	...	...	...	13	78·1	52·2	...	...	...	...	−2·9	−0·9	...	...	...	...
14	85·3	53·3	73·9	81·0	85·3	65·5	−0·8	+2·6	+0·2	+0·9	+2·3	+2·8	14	87·5	52·3	75·7	81·1	86·9	65·0	+1·4	+1·6	+2·0	+1·0	+3·9	+2·3
15	83·9	58·3	72·6	80·9	82·9	70·9	−0·7	+2·7	−1·7	+1·1	−0·6	+0·1	15	85·6	58·3	75·0	80·9	85·0	70·5	+1·0	+2·7	+0·7	+1·1	+1·5	−0·3
16	76·7	58·3	71·0	76·7	71·9	61·4	−0·2	+1·0	+2·3	+1·2	+0·4	+0·7	16	77·1	57·6	70·0	77·1	71·8	60·8	+0·2	+0·3	+1·3	+1·6	+0·3	+0·1
17	74·0	54·1	66·9	71·2	72·6	65·1	−1·7	+2·9	+1·7	−1·0	+0·1	+1·4	17	76·5	53·0	66·1	72·6	72·4	64·6	+0·8	+1·8	+0·9	+0·4	−0·1	+0·9
18	67·3	52·9	60·9	63·8	66·8	57·9	−1·6	+2·7	+0·9	+0·9	+0·9	+0·4	18	68·2	51·2	61·8	64·3	67·3	56·5	−0·7	+1·0	+1·8	+1·4	+1·4	−1·0
19	65·9	48·5	56·3	61·8	63·0	55·1	−1·1	+1·8	+0·5	+0·5	−1·5	+0·1	19	67·8	47·4	57·5	62·2	63·6	54·8	+0·8	+0·7	+1·7	+0·9	−0·9	−0·2
20	57·5	50·8	...	...	...	...	−0·5	+0·2	...	...	...	...	20	57·6	50·3	...	...	...	...	−0·4	−0·3	...	...	...	...
21	58·2	49·8	51·7	56·4	58·0	52·8	−0·4	+0·5	0·0	0·0	+1·1	+0·8	21	59·3	49·2	51·8	57·7	57·9	52·0	+0·7	−0·1	+0·1	+1·3	+1·0	0·0
22	57·0	48·3	53·9	54·4	55·9	54·9	−1·4	−0·2	+1·1	0·0	+0·1	+0·6	22	57·7	48·6	54·5	54·8	55·7	54·3	−0·7	+0·1	+1·7	+0·4	−0·1	0·0
23	66·6	53·1	56·2	59·9	63·0	59·3	−1·1	+0·3	0·0	+0·9	0·0	+0·5	23	68·5	52·3	56·2	60·0	63·3	59·1	+0·8	−0·5	0·0	+1·0	+0·3	+0·3
24	67·3	53·3	60·2	65·4	64·9	59·0	−2·7	+0·8	−1·8	−0·4	0·0	0·0	24	69·2	52·2	62·7	67·7	65·2	58·9	−0·8	−0·3	+0·7	+1·9	+0·3	−0·1
25	68·3	54·8	62·7	64·7	63·8	59·4	−2·5	+0·4	+0·8	+0·4	−0·9	+1·0	25	69·6	54·3	63·2	65·3	63·7	58·8	−1·2	−0·1	+1·3	+1·0	−1·0	+0·4
26	74·0	54·5	65·8	74·0	70·7	62·9	−0·2	−0·1	−0·3	+1·1	−0·5	0·0	26	74·0	54·4	66·4	72·3	71·4	62·8	−0·2	−0·2	+0·3	−0·6	+0·2	−0·1
27	64·0	56·3	...	...	...	...	−1·7	+0·1	...	...	...	...	27	64·7	55·3	...	...	...	...	−1·0	−0·9	...	...	...	...
28	69·0	49·4	61·4	66·4	63·9	59·8	−1·9	0·0	+0·2	−1·0	−1·8	−0·2	28	71·5	48·2	62·1	67·9	64·2	59·0	+0·6	−1·2	+0·9	+0·5	−1·5	−1·0
29	70·0	51·5	61·9	66·1	68·4	59·0	+0·1	0·0	−0·4	−0·2	+0·3	−0·7	29	70·6	50·2	63·0	67·0	68·4	58·4	+0·7	−1·3	+0·7	+0·7	+0·3	−1·3
30	66·3	51·4	63·1	63·6	64·9	57·9	−2·1	+0·2	+0·4	−0·3	−0·6	+0·2	30	68·1	50·2	64·8	64·8	66·2	57·3	−0·3	−1·0	+2·1	+0·9	+0·7	−0·4
31	67·2	52·6	57·8	63·9	64·9	57·4	−0·1	+0·9	+0·4	−0·2	+0·6	+1·2	31	67·5	51·7	58·0	64·1	65·2	56·2	+0·2	0·0	+0·6	0·0	+0·9	0·0
Means	70·6	53·1	62·5	67·0	68·5	60·1	−1·1	+0·9	+0·2	+0·4	+0·2	+0·7	Means	72·0	52·2	63·4	67·9	69·2	59·4	+0·2	0·0	+1·1	+1·2	+0·8	0·0

READINGS of DRY-BULB THERMOMETERS, in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; 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	64·8	51·4	57·1	62·4	64·6	53·1	−0·1	+1·1	−0·7	+0·2	+0·7	+2·7	1	66·5	50·9	57·8	64·1	65·0	53·0	+1·6	+0·6	0·0	+1·9	+1·1	+2·6
2	69·6	45·9	60·8	65·1	65·0	57·0	−1·8	+3·1	+0·7	−1·0	−1·5	0·0	2	71·3	44·3	61·8	65·9	65·5	56·3	−0·1	+1·5	+1·7	−0·2	−1·0	−0·7
3	66·9	53·9	...	...	...	...	−0·8	−0·2	...	...	...	...	3	67·0	53·3	...	...	...	...	−0·7	−0·8	...	...	...	...
4	68·0	53·5	...	...	...	...	−1·4	+0·1	...	...	...	...	4	69·5	52·3	...	...	...	...	+0·1	−1·1	...	...	...	...
5	71·0	55·3	63·7	66·1	69·5	60·0	−2·6	+0·9	−1·0	+0·1	−0·1	+0·7	5	73·1	54·3	65·7	66·2	70·7	59·5	−0·5	−0·1	+1·0	+0·2	+1·1	+0·2
6	69·2	58·1	61·4	63·7	65·4	60·9	−2·1	+0·3	+0·3	−0·2	−0·2	+0·1	6	71·1	57·5	61·4	63·9	64·8	60·2	−0·2	−0·3	+0·3	0·0	−0·8	−0·6
7	68·9	56·3	63·0	66·9	64·1	60·1	−1·8	+0·4	+0·1	+1·3	−1·9	+0·1	7	69·9	55·2	64·7	67·0	65·0	59·7	−0·8	−0·7	+1·8	+1·4	−1·0	−0·3
8	67·3	54·2	61·9	64·2	58·0	54·6	−1·1	+0·2	0·0	+0·4	+0·3	+0·6	8	69·0	53·6	62·8	63·9	57·5	54·1	+0·6	−0·4	+0·9	+0·1	−0·2	+0·1
9	60·0	49·1	...	...	...	...	−1·0	+2·4	...	...	...	...	9	61·5	47·2	...	...	...	...	+0·5	+0·5	...	...	...	...
10	64·0	51·3	...	...	...	...	−1·2	+0·6	...	...	...	...	10	64·7	49·4	...	...	...	...	−0·5	−1·3	...	...	...	...
11	62·0	45·8	55·0	60·0	60·7	55·1	−1·0	+0·8	+0·8	+2·2	+0·2	+0·3	11	62·9	44·1	54·0	60·4	61·5	55·0	−0·1	−0·9	−0·2	+2·6	+1·0	+0·2
12	63·0	48·9	55·0	57·0	60·1	55·0	−0·9	+0·2	−0·6	0·0	+0·2	+1·0	12	64·3	48·3	55·9	57·3	60·1	55·8	+0·4	−0·4	+0·3	+0·3	+0·2	+1·8
13	68·8	49·0	59·6	64·1	63·9	57·3	−2·1	+2·2	−0·3	+0·4	−0·1	+0·6	13	71·5	46·2	60·9	65·8	64·7	56·6	+0·6	−0·6	+1·0	+2·1	+0·7	−0·1
14	70·0	56·1	60·0	67·4	68·4	59·2	−1·8	+0·9	−0·7	+0·4	−0·4	+1·5	14	71·6	55·3	60·6	68·5	68·5	59·1	−0·2	+0·1	−0·1	+1·5	−0·3	+1·4
15	70·9	57·3	63·0	67·4	70·4	59·4	−0·7	+1·2	−0·6	+0·5	+0·2	+0·6	15	72·6	56·5	64·3	70·5	71·7	58·9	+1·0	+0·4	+0·7	+3·6	+1·5	+0·1
16	77·9	50·3	66·4	76·9	76·4	63·9	−1·1	+2·0	−0·3	+0·7	+0·2	+0·2	16	80·0	48·8	68·0	77·8	77·1	63·6	+1·0	+0·5	+1·3	+1·6	+0·9	−0·1
17	65·2	58·3	...	...	...	...	−2·9	+0·1	...	...	...	...	17	67·1	58·3	...	...	...	...	−1·0	+0·1	...	...	...	...
18	64·8	56·9	64·6	60·9	63·4	60·7	−1·4	+0·2	+0·7	−0·5	−0·3	0·0	18	65·5	55·6	64·9	61·2	63·3	60·3	−0·7	−1·1	+1·0	−0·2	−0·4	−0·4
19	72·4	58·5	64·2	69·0	66·5	61·9	−0·7	−0·6	−0·6	+0·1	0·0	−0·1	19	74·0	58·2	65·2	70·0	66·4	61·8	+0·9	−0·9	+0·4	+1·1	−0·1	−0·2
20	67·8	51·0	57·1	62·0	67·4	58·1	−0·4	+1·8	−1·7	+0·7	−0·1	+0·4	20	68·6	49·1	58·1	62·1	67·9	57·0	+0·4	−0·1	−0·7	+0·8	+0·4	−0·7
21	67·1	51·6	61·7	63·8	65·9	56·5	−0·1	0·0	+1·8	0·0	−0·1	+1·5	21	67·8	50·5	61·0	65·1	66·6	56·0	+0·6	−1·1	+1·1	+1·3	+0·6	+1·0
22	73·5	49·2	64·5	71·2	73·5	59·2	−0·4	+2·8	−0·2	+0·2	+1·9	−0·1	22	75·5	47·3	66·3	71·5	74·5	58·7	+1·6	+0·9	+1·6	+0·5	+2·9	−0·6
23	67·3	55·4	62·0	65·0	66·1	61·5	−0·7	+0·2	+0·3	−0·6	0·0	+0·2	23	68·3	54·8	62·5	65·9	66·5	61·2	+0·3	−0·4	+0·8	+0·3	+0·4	−0·1
24	69·0	57·5	...	...	...	...	−1·9	+0·1	...	...	...	...	24	71·2	57·0	...	...	...	...	+0·3	−0·4	...	...	...	...
25	68·6	51·1	61·9	66·9	68·6	58·9	+0·2	−0·1	+0·1	+0·3	+1·2	+0·7	25	68·2	49·4	62·3	66·8	67·8	58·2	−0·2	−1·8	+0·5	+0·2	+0·4	0·0
26	71·0	50·5	63·9	66·3	64·9	57·9	−0·8	+1·8	+1·2	+0·6	+0·7	+0·1	26	73·5	49·2	64·0	66·9	65·3	57·2	+1·7	+0·5	+1·3	+1·2	+1·1	−0·6
27	70·3	50·0	55·0	59·9	65·4	55·0	+0·3	+1·8	+0·5	+0·1	+0·1	+1·7	27	70·2	49·1	55·0	60·4	64·6	54·0	+0·2	+0·9	+0·5	+0·6	−0·7	+0·7
28	75·0	51·3	66·2	68·5	72·1	61·2	−0·4	+2·2	+0·2	−0·3	−2·3	+3·4	28	76·7	49·2	67·2	70·0	73·8	60·3	+1·3	+0·1	+1·2	+1·2	−0·6	+2·5
29	76·8	56·3	71·1	76·0	76·2	63·3	−0·2	+2·2	+0·5	+0·6	+0·4	+1·0	29	78·8	55·3	72·0	78·4	78·8	62·6	+1·8	+1·2	+1·4	+3·0	+3·0	+0·3
30	66·4	56·3	61·5	66·3	63·3	56·7	−0·3	+0·8	+0·7	+0·6	+0·4	+0·5	30	66·9	55·4	61·6	66·9	64·2	56·2	+0·2	−0·1	+0·8	+1·2	+1·3	0·0
31	65·8	55·3	...	...	...	...	−1·4	+0·3	...	...	...	...	31	66·6	54·5	...	...	...	...	−0·6	−0·5	...	...	...	...
Means	68·5	53·1	61·7	65·7	66·7	58·6	−1·1	+1·0	+0·1	+0·3	0·0	+0·7	Means	69·9	51·9	62·4	66·5	67·2	58·1	+0·3	−0·2	+0·8	+1·1	+0·5	+0·3

READINGS of DRY-BULB THERMOMETERS, in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; 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	72·0	58·4	63·9	68·9	70·8	58·7	−1·0	+0·5	−0·4	−0·8	+1·1	+0·8	1	73·5	57·0	65·0	68·4	71·4	57·8	+0·5	−0·9	+0·7	−1·3	+1·7	−0·1
2	70·1	54·6	67·6	67·3	66·5	62·0	−1·8	+1·2	−0·1	−0·2	−0·2	+0·2	2	72·4	54·0	68·4	68·7	66·5	61·8	+0·5	+0·6	+0·7	+1·2	−0·2	0·0
3	71·9	58·6	67·4	69·3	68·8	58·9	+0·1	−0·1	−0·4	+1·3	+0·1	+0·1	3	72·0	57·3	67·7	68·2	69·6	58·0	+0·2	−1·4	−0·1	+0·2	+0·9	−0·8
4	70·3	56·4	64·9	67·0	69·9	57·7	−0·8	+0·2	+0·6	−0·3	+0·2	+0·3	4	71·4	56·4	65·2	68·4	70·5	57·0	+0·3	+0·2	+0·9	+1·1	+0·8	−0·4
5	67·0	54·0	58·8	65·1	65·9	56·8	−0·4	+1·2	−0·1	+0·5	+0·8	+0·8	5	67·2	52·7	60·0	65·3	67·2	57·0	−0·2	−0·1	+1·1	+0·9	+2·1	+1·0
6	70·9	52·5	57·2	69·0	69·2	54·8	+0·2	+2·3	−1·5	+0·4	+0·5	+1·6	6	71·8	51·2	57·8	69·3	70·1	53·9	+1·1	+1·0	−0·9	+1·2	+1·4	+0·7
7	71·2	46·3	...	...	...	...	+1·1	+2·2	...	...	...	...	7	71·9	45·2	...	...	...	...	+1·8	+1·1	...	...	...	...
8	68·5	47·5	60·1	68·4	67·6	55·5	−0·6	+2·3	+1·2	+1·3	−0·7	+0·3	8	69·9	46·4	60·0	69·1	69·0	54·5	+0·8	+1·2	+1·1	+2·0	+0·7	−0·7
9	69·1	52·3	62·5	66·8	65·4	59·0	−1·5	+1·0	+0·2	+0·6	−0·3	0·0	9	70·7	51·2	63·0	67·2	67·0	58·3	+0·1	−0·1	+0·7	+1·0	+1·3	−0·7
10	65·9	55·2	61·1	65·4	64·9	59·4	−1·7	−0·6	−0·6	−0·3	+0·3	−0·2	10	67·2	55·3	61·3	66·9	66·8	59·0	−0·4	−0·5	−0·4	+1·2	+2·2	−0·6
11	64·0	56·4	60·9	62·5	62·7	58·8	−1·7	+1·0	−1·0	0·0	+0·9	0·0	11	66·5	55·5	61·2	63·9	62·4	58·3	+0·8	+0·1	−0·7	+1·4	+0·6	−0·5
12	59·2	49·3	49·9	53·4	58·9	52·2	−0·4	+0·2	+0·2	0·0	+1·2	0·0	12	59·5	48·2	49·0	53·5	59·2	51·1	−0·1	−0·9	−0·7	+0·1	+1·5	−1·1
13	55·7	41·3	48·2	54·9	55·1	48·5	+0·2	+0·1	+0·5	+2·7	+0·4	+1·1	13	56·2	39·7	47·8	52·5	56·1	48·2	+0·7	−1·5	+0·1	+0·3	+1·4	+0·8
14	59·5	45·3	...	...	...	...	−1·5	+2·5	...	...	...	...	14	60·0	44·0	...	...	...	...	−1·0	+1·2	...	...	...	...
15	61·1	52·4	57·3	60·5	60·1	56·9	−0·9	0·0	−0·4	−0·1	−0·6	−0·2	15	62·2	52·0	58·0	60·7	60·7	56·3	+0·2	−0·4	+0·3	+0·1	0·0	−0·8
16	65·1	52·5	55·9	62·9	61·8	52·9	−1·1	−0·3	−0·3	+0·9	+0·1	0·0	16	66·4	51·3	56·1	62·6	62·0	52·2	+0·2	−1·5	−0·1	+0·6	+0·3	−0·7
17	60·3	46·4	53·8	58·0	57·9	51·8	−0·1	+0·2	−0·5	−0·6	+0·7	+0·6	17	60·7	45·1	54·1	58·0	58·0	50·9	+0·3	−1·1	−0·2	−0·6	+0·8	−0·3
18	59·9	42·6	52·1	59·2	59·1	46·1	+0·1	+0·2	+0·4	+0·4	+0·3	+3·5	18	60·0	41·2	52·6	58·5	59·6	46·5	+0·2	−1·2	+0·9	−0·3	+0·8	+3·9
19	65·1	39·3	50·0	63·9	62·9	49·9	0·0	+2·5	−0·2	+1·2	+1·2	+2·4	19	66·2	38·0	52·5	64·4	64·6	48·3	+1·1	+1·2	+2·3	+1·7	+2·9	+0·8
20	65·1	39·5	52·5	63·8	62·4	51·8	+1·2	+2·4	−1·2	+1·1	+1·4	+0·6	20	65·0	39·1	54·0	62·9	64·0	51·1	+1·1	+2·0	+0·3	+0·2	+3·0	−0·1
21	64·4	48·8	...	...	...	...	−1·0	+2·2	...	...	...	...	21	67·0	48·2	...	...	...	...	+1·6	+1·6	...	...	...	...
22	73·8	53·3	62·9	70·4	72·8	55·5	−1·3	+0·8	+0·1	−0·1	−0·2	+0·3	22	75·6	52·2	64·6	71·0	73·5	55·5	+0·5	−0·3	+1·8	+0·5	+0·5	+0·3
23	67·9	53·5	59·9	67·9	63·6	60·1	−1·8	+0·7	−0·3	0·0	−0·1	0·0	23	69·3	53·5	60·6	68·9	64·1	59·6	−0·4	+0·7	+0·4	+1·0	+0·4	−0·5
24	63·5	51·7	56·7	62·9	62·7	51·9	+0·2	+3·9	+0·7	+1·2	+0·1	+3·6	24	63·2	51·4	57·2	62·1	62·5	52·7	−0·1	+3·6	+1·2	+0·4	−0·1	+4·4
25	65·2	43·3	52·9	64·7	64·5	50·2	+0·3	+3·7	−0·4	+1·4	+0·8	+2·5	25	65·4	41·4	54·7	62·8	63·2	50·4	+0·5	+1·8	+1·4	−0·5	−0·5	+2·7
26	66·2	40·8	48·9	65·9	66·0	51·6	−0·7	+0·7	−0·4	+1·1	−0·3	+2·3	26	67·5	40·1	49·5	64·1	65·9	52·2	+0·6	0·0	+0·2	−0·7	−0·4	+2·9
27	66·2	40·7	49·4	65·1	66·0	57·9	−1·2	+2·4	−0·3	+0·1	+0·2	+0·3	27	67·3	39·9	49·0	64·0	66·8	57·2	−0·1	+1·6	−0·7	−1·0	+1·0	−0·4
28	59·2	51·0	...	...	...	...	+0·1	−0·2	...	...	...	...	28	58·7	50·3	...	...	...	...	−0·4	−0·9	...	...	...	...
29	55·6	46·9	50·4	51·4	54·0	48·8	−0·8	+0·7	+0·4	−0·2	−0·1	+0·8	29	55·5	45·5	50·5	51·1	53·6	48·0	−0·9	−0·7	+0·5	−0·5	−0·5	0·0
30	56·0	48·0	53·0	54·9	55·8	51·4	−1·0	+0·6	−0·7	−0·2	0·0	+0·2	30	56·7	47·2	53·1	55·2	55·3	51·0	−0·3	−0·2	−0·6	+0·1	−0·5	−0·2
Means	65·0	49·3	56·9	63·4	63·7	54·6	−0·6	+1·1	−0·2	+0·4	+0·3	+0·8	Means	65·9	48·4	57·4	63·4	64·2	54·1	+0·3	+0·2	+0·4	+0·4	+0·8	+0·4

READINGS of DRY-BULB THERMOMETERS, in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; 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	57·5	50·1	53·2	57·5	55·9	51·7	−0·6	−0·1	−0·5	−0·5	+0·1	+0·2	1	57·9	48·2	53·2	57·9	55·5	51·2	−0·2	−2·0	−0·5	−0·1	−0·3	−0·3
2	52·7	44·6	50·2	50·8	51·1	44·9	−0·6	+0·2	+0·5	+0·1	+0·2	+0·1	2	53·3	43·2	50·1	50·6	50·6	44·1	0·0	−1·2	+0·4	−0·1	−0·3	−0·7
3	47·0	42·0	43·6	44·5	46·0	42·8	−0·1	+1·0	+0·1	−0·1	+0·1	+0·2	3	47·5	41·3	43·4	44·2	46·2	42·2	+0·4	+0·3	−0·1	−0·4	+0·3	−0·4
4	47·8	42·3	45·8	46·2	46·0	45·9	+1·3	+0·1	−0·3	0·0	+0·1	−0·1	4	47·6	41·1	45·6	45·7	45·8	45·8	+1·1	−1·1	−0·5	−0·5	−0·1	−0·2
5	51·9	45·1	...	...	...	...	−0·6	+0·6	...	...	...	...	5	52·4	44·1	...	...	...	...	−0·1	−0·4	...	...	...	...
6	49·3	46·3	47·9	48·2	48·7	48·1	−0·6	+0·3	+0·2	+0·2	0·0	+1·1	6	50·0	45·3	48·0	48·2	48·4	48·0	+0·1	−0·7	+0·3	+0·2	−0·3	+1·0
7	53·7	45·2	48·0	52·3	53·7	49·0	−0·7	+0·1	−0·3	−0·5	−0·2	+0·5	7	54·1	45·1	48·0	52·1	53·4	48·6	−0·3	0·0	−0·3	−0·7	−0·5	+0·1
8	57·1	43·4	45·9	55·9	57·0	47·1	−0·9	+0·6	−0·8	+0·2	0·0	+0·4	8	58·0	43·6	47·5	56·3	57·5	46·3	0·0	+0·8	+0·8	+0·6	+0·5	−0·4
9	55·0	45·4	53·8	52·4	52·7	52·2	0·0	+1·2	−0·1	0·0	−0·3	−0·1	9	54·8	44·1	54·0	52·6	52·5	52·0	−0·2	−0·1	+0·1	+0·2	−0·5	−0·3
10	65·0	51·5	59·9	63·4	62·4	55·1	−2·1	−0·1	−0·4	−1·1	+0·3	+1·4	10	65·7	51·2	60·4	63·8	62·9	54·8	−1·4	−0·4	+0·1	−0·7	+0·8	+1·1
11	59·8	51·8	55·9	58·1	56·0	52·6	−2·1	+0·5	−0·5	0·0	−1·2	0·0	11	62·5	51·0	56·2	57·9	57·7	52·3	+0·6	−0·3	−0·2	−0·2	+0·5	−0·3
12	58·4	45·5	...	...	...	...	+1·7	+1·8	...	...	...	...	12	55·7	44·1	...	...	...	...	−1·0	+0·4	...	...	...	...
13	61·2	46·3	57·5	60·3	59·8	57·2	−0·5	+3·1	−0·2	−0·3	0·0	−0·2	13	61·7	44·7	57·8	60·9	59·5	57·0	0·0	+1·5	+0·1	+0·3	−0·3	−0·4
14	59·3	48·4	54·5	53·0	59·0	49·0	−1·9	+0·1	+0·1	+0·4	−0·5	0·0	14	60·1	47·1	54·2	53·4	59·3	48·6	−1·1	−1·2	−0·2	+0·8	−0·2	−0·4
15	58·6	48·3	56·7	58·1	56·1	51·2	−0·5	+0·1	−0·9	+0·1	−0·5	−0·2	15	59·0	46·6	57·0	58·3	56·2	50·7	−0·1	−1·6	−0·6	+0·3	−0·4	−0·7
16	56·0	45·2	52·0	54·5	55·9	45·2	−0·7	0·0	−0·8	−0·2	0·0	−0·1	16	56·4	44·1	53·0	54·7	56·3	45·0	−0·3	−1·1	+0·2	0·0	+0·4	−0·3
17	54·2	40·6	46·8	51·5	52·2	45·0	−0·6	+0·2	−0·6	+0·3	−0·1	−0·2	17	54·4	39·1	47·2	51·3	52·0	44·9	−0·4	−1·3	−0·2	+0·1	−0·3	−0·3
18	51·0	43·3	49·7	50·0	50·4	46·9	−0·6	+0·5	0·0	−0·2	−0·3	+0·6	18	50·7	44·2	49·6	50·0	50·2	45·8	−0·9	+1·4	−0·1	−0·2	−0·5	−0·5
19	55·6	33·3	...	...	...	...	−0·6	+0·7	...	...	...	...	19	56·6	31·9	...	...	...	...	+0·4	−0·7	...	...	...	...
20	60·1	47·2	51·7	57·3	58·7	53·7	−1·1	+0·9	−0·1	−0·2	−0·4	0·0	20	60·5	46·3	51·8	57·2	59·0	53·2	−0·7	0·0	0·0	−0·3	−0·1	−0·5
21	57·0	41·5	46·9	55·5	56·0	45·4	0·0	+0·2	0·0	+0·5	−0·2	+0·2	21	57·0	40·0	47·2	55·9	56·0	45·0	0·0	−1·3	+0·3	+0·9	−0·2	−0·2
22	54·5	43·4	49·7	53·7	54·2	50·1	0·0	−0·2	−0·2	0·0	+0·3	+0·4	22	54·3	42·1	49·6	53·5	54·1	49·5	−0·2	−1·5	−0·3	−0·2	+0·2	−0·2
23	54·2	40·4	46·4	52·1	54·2	50·8	−0·5	+1·6	0·0	−0·5	−0·1	+0·8	23	54·5	39·6	47·0	52·5	54·3	50·9	−0·2	+0·8	+0·6	−0·1	0·0	+0·9
24	57·7	47·3	50·0	56·0	55·9	52·7	−0·8	0·0	−0·6	−0·1	−0·2	+1·6	24	58·0	46·5	50·7	56·1	56·2	52·4	−0·5	−0·8	+0·1	0·0	+0·1	+1·3
25	58·1	50·3	...	...	...	...	−0·4	+0·3	...	...	...	...	25	58·5	50·2	...	...	...	...	0·0	+0·2	...	...	...	...
26	54·1	46·5	...	...	...	...	−0·5	+3·2	...	...	...	...	26	54·4	46·0	...	...	...	...	−0·2	+2·7	...	...	...	...
27	52·9	49·0	50·5	52·7	52·2	50·4	−0·5	0·0	+0·1	−0·1	+0·2	−0·1	27	53·2	48·4	50·7	52·4	52·0	50·0	−0·2	−0·6	+0·3	−0·4	0·0	−0·5
28	55·4	40·0	46·0	54·7	53·5	51·2	−0·6	+2·8	−1·3	−0·5	+0·2	+0·2	28	56·5	39·1	46·1	54·9	53·9	51·1	+0·5	+1·9	−1·2	−0·3	+0·6	+0·1
29	54·8	39·8	44·8	53·9	53·1	44·0	−0·6	+1·6	−1·9	−0·7	−0·2	+3·2	29	55·8	38·2	45·2	54·3	53·1	44·0	+0·4	0·0	−1·5	−0·3	−0·2	+3·2
30	55·9	42·5	50·4	54·1	55·0	47·1	−0·3	+3·1	−0·2	−0·1	+0·2	+0·2	30	56·0	40·6	50·7	54·4	55·3	46·2	−0·2	+1·2	+0·1	+0·2	+0·5	−0·7
31	51·6	37·2	40·2	48·7	50·9	48·9	−0·3	+1·0	−0·6	+0·3	+0·1	+0·1	31	51·6	35·9	39·8	49·1	51·6	48·8	−0·3	−0·3	−1·0	+0·7	+0·8	0·0
Means	55·4	44·6	49·9	53·7	54·1	49·2	−0·5	+0·8	−0·4	−0·1	−0·1	+0·4	Means	55·8	43·6	50·2	53·8	54·2	48·8	−0·2	−0·2	−0·1	0·0	0·0	0·0

READINGS of DRY-BULB THERMOMETERS, in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; 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	57·6	46·3	48·7	54·4	57·1	53·0	−0·1	−0·2	0·0	−0·3	+0·2	+2·0	1	57·5	45·7	48·8	54·6	56·9	52·7	−0·2	−0·8	+0·1	−0·1	0·0	+1·7
2	54·5	44·2	...	...	...	...	+0·1	+3·0	...	...	...	...	2	54·5	42·1	...	...	...	...	+0·1	+0·9	...	...	...	...
3	53·0	43·3	47·9	52·7	51·7	44·1	−0·2	+2·8	−0·4	+0·2	+0·5	+0·4	3	53·5	42·1	48·7	52·7	51·6	44·0	+0·3	+1·6	+0·4	+0·2	+0·4	+0·3
4	51·3	40·4	46·8	51·3	49·9	45·0	−1·1	+0·2	+0·3	+0·1	+0·7	+0·1	4	51·8	40·0	46·6	51·6	50·4	44·1	−0·6	−0·2	+0·1	+0·4	+1·2	−0·8
5	56·0	42·9	45·3	50·8	54·3	55·1	+0·1	+0·6	−0·2	−0·1	−0·1	+0·3	5	55·8	41·3	45·0	50·7	54·3	55·0	−0·1	−1·0	−0·5	−0·2	−0·1	+0·2
6	57·0	51·0	52·1	55·3	55·4	54·6	−0·9	−0·2	−0·3	−0·8	+0·3	+0·3	6	58·1	49·2	52·1	56·0	55·7	54·2	+0·2	−2·0	−0·3	−0·1	+0·6	−0·1
7	58·0	49·6	52·2	55·1	55·7	50·3	+0·5	+0·4	−0·5	+0·2	+0·3	+0·1	7	57·8	49·1	52·7	55·2	55·4	50·1	+0·3	−0·1	0·0	+0·3	0·0	−0·1
8	53·3	45·3	51·7	51·5	52·5	48·5	−0·8	+0·6	0·0	+0·1	−0·2	−0·2	8	53·5	44·3	51·7	51·3	52·4	48·1	−0·6	−0·4	0·0	−0·1	−0·3	−0·6
9	54·0	45·1	...	...	...	...	−0·1	+0·7	...	...	...	...	9	53·8	44·1	...	...	...	...	−0·3	−0·3	...	...	...	...
10	52·7	43·5	48·2	50·9	52·0	46·8	−0·2	+1·2	−0·4	−0·1	+0·2	+1·3	10	53·0	43·0	48·4	51·0	52·3	46·5	+0·1	+0·7	−0·2	0·0	+0·5	+1·0
11	51·1	43·6	45·7	48·7	51·1	51·0	−0·5	0·0	−0·1	0·0	−0·2	0·0	11	51·0	43·0	46·0	48·6	50·9	51·0	−0·6	−0·6	+0·2	−0·1	−0·4	0·0
12	55·9	44·1	51·2	54·0	54·4	44·1	+0·6	+3·4	−0·2	+0·1	+0·1	+3·4	12	55·4	43·1	51·1	54·0	54·6	44·0	+0·1	+2·4	−0·3	+0·1	+0·3	+3·3
13	54·7	37·2	44·8	53·9	53·1	44·9	−0·5	+2·5	+1·6	−0·3	+0·1	+3·1	13	54·5	36·1	46·5	54·2	53·4	45·0	−0·7	+1·4	+3·3	0·0	+0·4	+3·2
14	54·7	44·2	46·8	54·2	52·3	49·3	−1·2	+4·2	−0·4	−0·2	+0·5	+0·5	14	56·1	42·2	47·3	54·5	52·2	49·2	+0·2	+2·2	+0·1	+0·1	+0·4	+0·4
15	49·5	41·1	41·6	45·9	48·0	45·0	+0·6	+0·8	+0·4	0·0	0·0	+0·1	15	49·9	40·1	41·9	46·2	48·0	45·0	+1·0	−0·2	+0·7	+0·3	0·0	+0·1
16	45·9	39·7	...	...	...	...	+0·8	+0·1	...	...	...	...	16	45·4	39·0	...	...	...	...	+0·3	−0·6	...	...	...	...
17	43·5	35·5	37·5	42·1	40·4	36·8	−0·2	+0·8	+0·3	−0·2	+0·1	+0·1	17	43·9	33·9	37·0	42·5	40·6	36·0	+0·2	−0·8	−0·2	+0·2	+0·3	−0·7
18	40·0	32·5	36·2	39·5	37·6	34·8	0·0	+0·3	+0·3	−0·4	+0·3	+0·1	18	40·2	30·6	35·8	39·8	37·5	34·4	+0·2	−1·6	−0·1	−0·1	+0·2	−0·3
19	34·8	31·2	33·2	32·2	31·2	32·1	+0·1	−0·1	−0·1	−0·1	−0·2	+0·2	19	34·4	30·7	33·2	32·4	31·1	32·0	−0·3	−0·6	−0·1	+0·1	−0·3	+0·1
20	35·0	29·8	33·8	32·9	33·6	29·8	+0·3	0·0	−0·2	+0·1	−0·1	0·0	20	33·8	29·5	33·8	32·8	33·8	29·5	−0·9	−0·3	−0·2	0·0	+0·1	−0·3
21	39·1	27·8	32·2	36·4	37·3	30·1	+0·3	+0·6	+0·2	−0·4	−0·2	+0·5	21	38·9	25·3	32·2	36·7	37·6	29·5	+0·1	−1·9	+0·2	−0·1	+0·1	−0·1
22	37·0	29·0	34·1	36·2	35·3	35·9	+0·1	+1·3	+0·1	−0·2	0·0	−0·1	22	37·7	27·0	34·6	36·0	35·2	36·0	+0·8	−0·7	+0·6	−0·4	−0·1	0·0
23	49·3	35·3	...	...	...	...	−0·6	+0·6	...	...	...	...	23	49·3	34·2	...	...	...	...	−0·6	−0·5	...	...	...	...
24	51·0	38·6	46·2	47·6	47·8	50·9	+0·3	+1·3	+0·5	+0·1	+0·1	+0·2	24	51·1	39·0	45·8	47·7	47·6	51·1	+0·4	+1·7	+0·1	+0·2	−0·1	+0·4
25	51·9	48·3	51·0	51·5	50·3	48·6	−0·4	−0·1	0·0	−0·1	−0·2	−0·1	25	52·0	47·9	51·1	51·4	50·1	48·2	−0·3	−0·5	+0·1	−0·2	−0·4	−0·5
26	48·9	46·3	47·2	48·5	47·7	46·8	−0·3	0·0	−0·4	−0·1	+0·1	+0·2	26	48·7	46·0	47·2	48·6	47·8	46·5	−0·5	−0·3	−0·4	0·0	+0·2	−0·1
27	46·8	43·1	44·7	46·0	45·9	43·1	−0·1	+1·4	+0·2	0·0	+1·2	+1·4	27	46·5	42·2	44·7	46·1	45·8	43·1	−0·4	+0·5	+0·2	+0·1	+1·1	+1·4
28	49·0	41·7	48·8	48·1	49·0	42·0	−0·4	+1·2	−0·1	−0·1	+0·1	+1·0	28	49·3	40·3	48·9	48·0	49·3	41·6	−0·1	−0·2	0·0	−0·2	+0·4	+0·6
29	49·0	39·2	47·1	48·0	47·0	46·0	0·0	+2·3	−0·1	−0·4	0·0	0·0	29	48·7	37·8	47·4	48·3	47·0	46·0	−0·3	+0·9	+0·2	−0·1	0·0	0·0
30	46·3	44·5	...	...	...	...	+0·2	−0·6	...	...	...	...	30	46·3	44·1	...	...	...	...	+0·2	−1·0	...	...	...	...
Means	49·4	40·8	44·6	47·5	47·6	44·3	−0·1	+1·0	0·0	−0·1	+0·1	+0·6	Means	49·4	40·0	44·7	47·6	47·7	44·1	−0·1	−0·1	+0·2	0·0	+0·2	+0·4

READINGS of DRY-BULB THERMOMETERS, in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; 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	43·4	44·0	45·9	47·0	46·9	+0·1	+0·5	+0·3	−0·2	+0·1	0·0	1	47·1	43·0	44·8	45·8	46·9	47·1	0·0	+0·1	+1·1	−0·3	0·0	+0·2
2	50·0	41·3	47·0	48·8	48·0	41·9	+0·4	0·0	+0·1	−0·2	−0·2	+0·3	2	49·8	40·1	46·9	49·1	48·0	41·7	+0·2	−1·2	0·0	+0·1	−0·2	+0·1
3	41·9	31·4	36·7	35·7	34·3	32·0	+0·3	+0·2	0·0	+0·5	0·0	+0·3	3	41·7	30·1	36·7	35·9	34·1	31·6	+0·1	−1·1	0·0	+0·7	−0·2	−0·1
4	34·3	27·9	29·8	33·2	32·8	27·9	−0·1	+0·2	+0·1	−0·8	−0·2	+0·2	4	33·7	26·9	29·7	33·5	32·7	27·2	−0·7	−0·8	0·0	−0·5	−0·3	−0·5
5	32·1	25·9	30·5	29·5	29·1	32·0	+0·1	+0·5	−0·1	−0·1	−0·1	0·0	5	32·0	24·9	30·3	29·1	28·5	32·0	0·0	−0·5	−0·3	−0·5	−0·7	0·0
6	32·7	26·3	30·9	29·1	28·8	26·9	+0·3	+0·3	+0·5	+0·1	−0·1	+0·1	6	32·2	24·6	30·6	28·9	28·6	26·1	−0·2	−1·4	+0·2	−0·1	−0·3	−0·7
7	34·2	25·4	...	...	...	...	−0·2	+0·9	...	...	...	...	7	34·2	23·3	...	...	...	...	−0·2	−1·2	...	...	...	...
8	34·9	31·8	34·1	33·9	32·7	32·7	0·0	−0·4	0·0	−0·1	−0·2	−0·1	8	34·7	31·1	34·1	34·2	32·5	31·9	−0·2	−1·1	0·0	+0·2	−0·4	−0·9
9	36·2	32·1	35·0	36·0	35·8	36·0	−0·1	−0·1	−0·3	−0·1	−0·1	−0·2	9	36·2	31·3	35·0	36·2	35·6	36·0	−0·1	−0·9	−0·3	+0·1	−0·3	−0·2
10	38·0	33·7	36·4	37·5	34·9	34·9	0·0	−0·1	−0·1	−0·2	−0·1	+0·1	10	37·6	33·1	36·4	37·4	35·1	34·8	−0·4	−0·7	−0·1	−0·3	+0·1	0·0
11	35·1	32·9	33·4	33·9	34·1	33·4	+0·1	−0·3	−0·3	0·0	−0·2	0·0	11	35·0	31·9	33·2	34·1	34·4	33·2	0·0	−1·3	−0·5	+0·2	+0·1	−0·2
12	38·8	31·1	31·3	33·5	35·2	38·6	+0·1	−0·1	−0·3	−0·6	−0·2	0·0	12	38·1	30·7	31·3	32·6	35·5	38·1	−0·6	−0·5	−0·3	−1·5	+0·1	−0·5
13	49·2	37·2	46·5	48·2	49·0	48·9	−0·3	0·0	+0·2	−0·4	0·0	+0·2	13	49·5	36·6	47·1	48·5	48·9	49·0	0·0	−0·6	+0·8	−0·1	−0·1	+0·3
14	52·4	46·4	...	...	...	...	−0·3	+0·7	...	...	...	...	14	52·5	45·4	...	...	...	...	−0·2	−0·3	...	...	...	...
15	51·3	38·6	45·0	47·1	46·2	39·0	+0·1	+0·1	0·0	−0·4	+0·6	+0·5	15	51·3	37·7	44·7	47·4	46·2	38·7	+0·1	−0·8	−0·3	−0·1	+0·6	+0·2
16	54·7	38·3	46·6	50·4	53·3	54·3	+0·1	+0·4	−0·1	+0·1	0·0	−0·2	16	54·5	37·3	46·5	50·6	53·1	54·2	−0·1	−0·6	−0·2	+0·3	−0·2	−0·3
17	56·5	47·0	54·6	56·1	50·4	47·2	−0·2	+0·3	−0·1	−0·6	−0·3	+0·3	17	56·3	47·0	54·5	56·0	50·3	47·3	−0·4	+0·3	−0·2	−0·7	−0·4	+0·4
18	54·2	43·3	47·2	48·4	48·7	44·7	−0·1	−0·4	−0·1	+0·1	+0·2	+0·5	18	53·9	43·0	47·1	48·7	48·7	44·0	−0·4	−0·7	−0·2	+0·4	+0·2	−0·2
19	47·7	43·2	46·4	46·4	46·9	46·5	+0·8	0·0	+0·1	+0·2	+0·4	−0·2	19	47·2	42·3	46·1	46·6	47·2	46·3	+0·3	−0·9	−0·2	+0·4	+0·7	−0·4
20	51·9	45·4	46·9	51·9	50·6	48·1	−0·1	−0·2	0·0	−0·1	+0·2	+0·5	20	52·3	45·1	46·8	52·3	50·4	48·1	+0·3	−0·5	−0·1	+0·3	0·0	+0·5
21	51·1	45·1	...	...	...	...	−0·1	0·0	...	...	...	...	21	50·7	45·1	...	...	...	...	−0·5	0·0	...	...	...	...
22	49·7	45·3	48·0	48·0	47·7	45·7	0·0	+0·1	+0·3	+0·1	+0·1	+0·4	22	49·7	45·1	47·6	47·8	47·9	45·5	0·0	−0·1	−0·1	−0·1	+0·3	+0·2
23	46·0	40·4	42·3	43·5	43·1	40·9	+0·6	+1·3	+0·1	+0·1	−0·1	+1·8	23	45·9	39·8	42·5	43·3	43·2	40·9	+0·5	+0·7	+0·3	−0·1	0·0	+1·8
24	41·0	35·5	37·9	39·5	39·5	36·0	+0·9	+0·1	−0·1	+0·3	+0·1	+0·4	24	40·9	35·0	38·0	39·4	39·8	35·9	+0·8	−0·4	0·0	+0·2	+0·4	+0·3
25	49·9	35·6	...	...	...	...	−0·1	+0·2	...	...	...	...	25	49·7	34·2	...	...	...	...	−0·3	−1·2	...	...	...	...
26	51·0	46·3	...	...	...	...	−0·5	−0·2	...	...	...	...	26	51·0	46·1	...	...	...	...	−0·5	−0·4	...	...	...	...
27	51·2	46·5	47·1	50·0	49·2	48·4	+1·2	−0·1	−0·2	+0·1	0·0	+0·1	27	51·1	45·6	46·5	50·0	49·1	48·4	+1·1	−1·0	−0·8	+0·1	−0·1	+0·1
28	49·0	41·3	...	...	...	...	+0·1	+0·1	...	...	...	...	28	48·9	41·0	...	...	...	...	0·0	−0·2	...	...	...	...
29	44·0	34·2	37·1	40·0	40·3	37·0	+0·4	+0·2	−0·1	+0·1	+0·3	+0·2	29	43·8	32·7	37·0	40·0	40·3	37·1	+0·2	−1·3	−0·2	+0·1	+0·3	+0·3
30	40·5	34·8	35·7	39·5	39·3	36·4	−0·4	−0·3	−0·6	−0·7	0·0	+0·4	30	40·4	33·8	35·4	39·6	39·2	35·9	−0·5	−1·3	−0·9	−0·6	−0·1	−0·1
31	41·8	33·7	37·4	40·7	41·8	38·9	+0·4	+0·2	−0·3	+0·7	+0·9	+0·3	31	41·8	32·2	37·4	40·6	41·8	38·7	+0·4	−1·3	−0·3	+0·6	+0·9	+0·1
Means	44·8	37·5	40·3	41·9	41·5	39·8	+0·1	+0·1	0·0	−0·1	0·0	+0·2	Means	44·6	36·6	40·2	41·9	41·5	39·6	0·0	−0·7	−0·1	0·0	0·0	0·0

READINGS of the WET-BULB THERMOMETER placed in a STEVENSON'S SCREEN in the OBSERVATORY GROUNDS; and EXCESS of the READINGS above those of the corresponding THERMOMETER on the ORDINARY STAND, in the MAGNETIC PAVILION ENCLOSURE, in the YEAR 1902.

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

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

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

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.				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	44·0	48·2	45·0	40·7	0·0	+0·1	+0·7	+2·1
2	43·6	50·2	49·4	46·3	−0·4	+0·2	+0·6	+0·3
3	45·0	47·4	46·5	44·2	+0·2	+0·2	+0·8	0·0
4								
5	43·4	43·4	43·3	38·1	+0·5	+0·3	+0·5	+0·2
6	39·2	41·9	41·0	38·0	+0·3	+0·2	+0·7	+0·1
7	39·1	41·3	41·9	40·8	+0·8	+0·5	+0·2	+0·6
8	41·0	40·8	43·5	40·2	+0·6	+0·3	−0·2	+0·5
9	40·7	42·1	42·7	40·4	+0·4	+0·6	+0·8	+0·2
10	39·1	42·0	42·3	39·1	+0·4	+0·2	−0·7	+0·2
11								
12	44·1	42·2	43·1	40·2	−0·6	−0·4	+0·2	−0·1
13	40·8	40·1	40·2	37·4	+1·2	+0·9	−0·2	0·0
14	38·9	41·1	42·0	39·7	+0·2	−0·5	+0·2	+1·3
15	41·5	42·5	49·4	49·8	−0·3	−0·4	−0·1	0·0
16	46·2	48·2	49·7	51·7	−0·5	+0·6	+0·1	−0·1
17	47·3	49·4	49·3	43·1	+0·6	+0·3	−0·4	+0·1
18								
19								
20	40·5	42·6	43·5	43·6	0·0	+0·5	+0·5	+0·2
21	45·1	45·0	45·0	45·0	+0·7	+0·8	+0·2	+0·2
22	47·8	48·1	48·3	49·1	+0·5	−0·4	+0·3	−0·1
23	51·4	54·1	56·1	56·8	−0·3	−0·9	+0·4	+0·2
24	56·7	58·7	59·1	56·1	+0·3	+0·9	−0·3	+0·3
25								
26	50·0	52·4	56·1	52·1	+0·8	+0·9	+0·6	+0·1
27	57·3	57·7	59·2	52·8	+0·6	−0·1	−0·1	+0·1
28	54·5	59·0	57·2	50·4	+1·1	+0·8	−0·1	+0·4
29	49·8	51·2	50·5	51·1	+0·5	+0·5	0·0	+0·1
30	51·2	56·0	60·2	57·2	−0·2	−0·8	−1·1	+0·1
31	57·5	60·0	61·3	58·8	−1·9	−0·9	−2·1	−0·1
Means	46·0	47·9	48·7	46·3	+0·2	+0·2	+0·1	+0·3

JUNE.

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

JULY.

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	57·1	60·2	64·8	54·7	−0·3	+0·1	+0·3	0·0
2	49·7	50·6	52·3	49·7	+0·5	+0·4	+0·3	+0·5
3	54·3	54·2	56·2	52·3	−1·1	−0·6	+0·6	+0·6
4	55·5	61·9	63·3	62·1	+0·7	+0·4	+0·6	0·0
5	62·1	65·0	66·4	60·8	−0·6	0·0	−0·3	+0·1
6								
7	65·3	67·3	65·6	62·9	−0·3	+0·4	0·0	+1·3
8	61·5	64·2	65·3	63·4	+0·1	+0·6	−0·5	−0·3
9	61·2	64·1	64·8	55·2	−0·2	−0·3	−0·1	−0·5
10	53·5	55·1	56·2	50·7	−0·6	+0·2	−0·5	−0·3
11	50·0	51·8	53·1	49·7	+0·3	+0·9	+0·8	+0·9
12	52·4	56·2	58·3	52·1	+0·4	+1·5	−0·3	0·0
13								
14	61·1	63·6	66·1	60·1	−0·7	−0·1	+0·7	+1·3
15	63·1	65·1	64·8	62·1	−1·2	+0·9	−1·2	−0·2
16	62·0	64·3	62·3	56·7	+0·1	0·0	0·0	+0·3
17	59·1	59·4	59·9	57·8	+1·1	+0·1	0·0	+1·0
18	54·3	54·2	54·1	49·2	+0·3	+0·3	+0·5	+0·2
19	51·9	51·6	52·1	51·6	+0·4	−0·3	−0·7	+0·1
20								
21	49·6	52·1	52·1	49·9	+0·1	−0·1	+0·5	+0·1
22	49·9	51·2	51·3	53·2	+0·6	−0·1	+0·4	−0·1
23	53·8	55·8	58·0	55·2	−0·5	+0·2	−0·3	−0·1
24	54·3	56·1	56·2	54·7	−0·9	−0·6	+0·1	0·0
25	57·3	57·1	57·1	56·0	+0·8	+0·5	−0·1	+0·2
26	61·3	61·2	61·3	58·2	−0·5	+0·5	−0·4	−0·4
27								
28	55·3	58·1	56·5	54·9	+0·5	−0·1	−0·9	0·0
29	57·1	57·2	58·1	54·1	−0·2	0·0	+0·5	0·0
30	56·4	56·7	55·7	53·2	+0·7	+1·0	+0·4	−0·1
31	52·9	54·2	55·2	52·0	+0·2	−0·5	+0·4	+0·6
Means	56·4	58·1	58·8	55·3	0·0	+0·2	0·0	+0·2

AUGUST.

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	52·4	53·0	54·0	49·9	−0·5	−0·2	+0·1	+1·2
2	56·1	56·6	55·1	56·0	+0·7	−0·6	−0·6	0·0
3								
4								
5	58·1	59·3	61·3	56·3	−1·2	+0·5	+0·1	0·0
6	61·0	61·5	62·9	60·1	+0·3	−0·4	−0·3	−0·1
7	60·0	62·0	62·2	58·0	+0·4	+1·3	−0·3	+0·3
8	58·2	59·1	54·7	51·9	−0·3	+0·6	+0·4	+0·7
9								
10								
11	49·7	50·3	51·1	50·8	+0·4	+1·3	+0·4	+0·6
12	52·8	53·4	55·1	52·7	+0·2	−0·3	+0·6	+0·9
13	55·8	57·6	56·1	56·4	+0·2	−0·1	+0·1	+0·2
14	58·4	60·1	61·4	58·1	−0·4	+0·4	+0·1	+0·9
15	60·1	61·6	63·1	57·4	−0·6	+0·3	+0·4	+0·4
16	58·3	63·6	63·3	59·1	−0·1	−0·7	+0·2	−0·2
17								
18	60·1	59·9	61·9	60·1	+0·3	−0·8	−0·7	−0·4
19	60·1	61·6	60·5	58·9	−0·7	−0·1	−0·5	−0·1
20	53·2	57·0	56·5	53·6	−1·2	−0·1	−0·3	+0·1
21	54·1	55·1	55·2	52·6	+0·1	+0·2	+0·1	+0·6
22	57·1	60·9	62·1	56·5	−0·2	0·0	+0·4	−0·2
23	59·3	59·7	59·8	59·8	−0·1	−0·2	−0·5	+0·1
24								
25	56·2	58·0	58·6	54·7	+0·1	+0·1	+0·7	−0·2
26	58·1	60·2	57·6	56·9	+0·7	+0·1	0·0	−0·1
27	54·4	56·1	59·3	54·0	+0·2	−0·1	+0·2	+1·0
28	61·3	62·3	60·8	56·5	+0·1	+0·1	−0·9	+1·1
29	62·6	61·1	60·1	57·3	−0·5	+0·5	+0·3	+0·2
30	57·3	58·4	58·0	54·7	−0·1	−0·1	−0·2	+0·1
31								
Means	57·3	58·7	58·8	55·9	−0·1	+0·1	0·0	+0·3

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

READINGS of THERMOMETERS placed in a STEVENSON'S SCREEN near the ORDINARY STAND in the MAGNETIC PAVILION ENCLOSURE; and EXCESS of the READINGS above those of the corresponding THERMOMETERS on the ORDINARY STAND, in the YEAR 1902.

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

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

JANUARY.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	52·0	43·3	44·7	49·9	48·8	47·1	+0·3	+0·1	+0·3	+0·6	0·0	0·0	43·1	47·3	47·0	45·7	+ 0·4	+ 0·5	+ 0·2	+ 0·3
2	52·1	45·9	46·0	50·2	50·0	48·4	+0·1	+0·5	−0·2	−0·3	+0·2	+0·2	43·5	45·6	46·0	45·0	+ 0·4	− 0·2	0·0	0·0
3	52·2	40·2	41·1	49·0	51·0	51·1	+0·2	+0·8	+0·2	−0·2	0·0	−0·3	40·4	47·4	49·7	49·6	0·0	− 0·4	0·0	− 0·1
4	52·7	45·0	50·6	52·4	51·5	45·0	0·0	+0·5	0·0	−0·3	−0·1	+0·2	49·0	50·9	49·8	43·0	0·0	− 0·1	+ 0·1	+ 0·3
5	46·9	40·3	...	...	...	...	0·0	+0·1	...	...	...	...	...	...	...	...	...	...	...	...
6	49·8	37·5	45·4	48·0	49·7	45·9	0·0	+0·3	−0·1	0·0	+0·2	+0·2	43·3	45·0	46·0	43·6	+ 0·4	+ 0·2	+ 0·3	+ 0·2
7	46·0	41·1	42·8	46·0	45·2	44·0	−0·2	+0·4	0·0	+0·1	−0·2	−0·4	41·0	42·7	42·1	41·1	+ 0·2	+ 0·1	− 0·2	− 0·3
8	44·2	41·4	42·8	43·2	43·5	41·9	−0·2	+0·1	+1·0	−0·4	0·0	+0·3	40·1	40·2	40·4	39·3	+ 0·1	− 0·1	0·0	0·0
9	51·0	40·6	43·6	48·0	50·8	49·7	+0·1	+0·2	−0·1	0·0	0·0	−0·1	41·9	46·8	48·9	49·4	0·0	0·0	0·0	− 0·1
10	52·5	48·2	50·1	51·5	52·0	50·0	0·0	+0·4	−0·1	−0·2	−0·5	0·0	49·1	50·2	50·2	48·0	− 0·2	− 0·1	− 0·5	0·0
11	50·2	40·2	47·0	41·2	40·5	41·0	+0·2	0·0	+0·1	−0·2	−0·2	+0·3	47·0	40·2	40·5	41·0	+ 0·1	− 0·2	− 0·1	+ 0·3
12	48·2	40·3	...	...	...	...	−0·3	0·0	...	...	...	...	...	...	...	...	...	...	...	...
13	45·1	34·2	35·1	37·4	37·8	34·9	+0·3	0·0	0·0	−0·1	+0·1	+0·2	33·6	35·0	35·1	33·7	0·0	+ 0·2	+ 0·4	+ 0·2
14	35·8	30·5	31·2	34·1	35·1	31·1	+0·7	+0·2	−0·3	−0·2	+0·2	+0·4	29·2	32·1	33·1	30·4	− 0·5	+ 0·4	+ 0·5	+ 0·4
15	37·6	25·1	26·8	35·0	37·1	36·7	−0·2	+0·4	+0·1	+0·3	−0·3	+0·2	25·1	31·9	33·9	35·3	+ 0·2	+ 0·3	− 0·2	− 0·2
16	44·8	36·6	41·0	42·3	44·7	44·0	−0·2	+0·4	0·0	0·0	0·0	0·0	39·4	40·5	42·1	42·2	+ 0·7	+ 0·2	0·0	0·0
17	44·2	41·0	41·7	42·2	44·0	41·9	+0·1	+0·7	0·0	−0·5	+0·2	+0·2	40·8	41·4	42·9	41·3	0·0	− 0·3	+ 0·2	0·0
18	43·9	30·4	40·0	41·7	43·9	31·0	+0·6	+0·2	−0·1	+1·0	+1·0	+0·7	37·9	38·1	38·9	30·7	+ 0·2	+ 0·4	+ 0·4	+ 0·7
19	43·7	28·0	...	...	...	...	+0·8	+0·6	...	...	...	...	...	...	...	...	...	...	...	...
20	49·5	40·9	45·9	47·6	49·3	48·2	−0·3	+0·6	+0·1	−0·4	−0·2	0·0	42·8	44·4	46·1	46·1	0·0	− 0·1	− 0·1	− 0·2
21	51·2	46·3	46·9	50·1	50·9	48·9	−0·5	+0·1	+0·2	0·0	+0·1	+0·2	45·2	47·5	48·4	47·9	− 0·3	− 0·2	+ 0·6	+ 0·6
22	51·2	47·2	47·8	51·2	51·1	49·0	−0·5	+0·3	+0·9	+0·7	+0·1	+0·2	46·7	48·0	48·6	48·4	+ 0·3	+ 0·3	+ 0·3	+ 0·3
23	49·0	43·2	43·7	47·1	47·2	46·0	0·0	+0·5	+0·1	−0·3	0·0	+0·1	43·0	45·6	45·9	45·3	+ 0·2	0·0	0·0	0·0
24	46·6	37·4	41·1	45·0	45·7	37·4	+0·2	+0·2	−0·1	+0·1	+0·2	+0·2	40·0	44·5	42·5	36·2	+ 0·2	+ 0·1	+ 0·4	+ 0·4
25	38·2	31·0	31·5	36·4	37·7	33·3	−0·3	+0·2	0·0	−0·3	0·0	0·0	31·0	34·0	34·3	32·1	+ 0·3	+ 0·2	+ 0·5	+ 0·4
26	38·0	32·2	...	...	...	...	+0·3	+0·8	...	...	...	...	...	...	...	...	...	...	...	...
27	47·1	33·6	40·4	45·9	47·1	43·1	0·0	0·0	−0·3	0·0	0·0	+0·1	40·2	43·6	43·9	41·8	− 0·1	0·0	+ 0·3	+ 0·4
28	45·8	38·3	41·2	44·6	43·9	39·2	−0·1	−0·9	−0·1	−0·1	−0·2	−0·3	39·4	41·7	41·2	37·0	+ 0·2	+ 0·3	+ 0·1	+ 0·2
29	39·2	29·5	30·0	34·8	37·0	34·9	−0·3	+0·2	+0·1	+0·1	+0·3	+0·3	27·1	30·1	30·5	31·1	0·0	+ 0·2	+ 0·2	+ 0·2
30	37·3	29·5	29·9	33·2	37·3	32·8	−0·1	+0·3	+0·2	−0·2	−0·1	+0·2	28·5	31·1	34·7	30·6	+ 0·1	+ 0·1	0 0	+ 0·1
31	36·9	32·3	36·0	36·4	36·5	34·9	−0·1	+0·1	0·0	−0·1	−0·1	+0·2	34·6	34·0	33·3	31·2	+ 0·4	0·0	− 0·1	+ 0·3
Means	45·9	37·8	40·9	43·9	44·8	41·9	0·0	+0·3	+0·1	0·0	0·0	+0·1	39·4	41·5	42·1	40·3	+ 0·1	+ 0·1	+ 0·1	+ 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	39·1	33·0	34·5	37·2	37·4	33·5	−0·3	+0·3	+0·2	−0·1	−0·2	−0·1	31·0	32·9	33·5	29·8	+ 0·1	+ 0·1	+ 0·2	+ 0·2
2	33·5	31·2	...	...	...	...	−0·2	+0·7	...	...	...	...	...	...	...	...	...	...	...	...
3	34·8	32·2	32·2	32·7	34·0	34·8	+0·1	+0·4	+0·4	−0·1	0·0	+0·3	31·8	32·1	33·6	34·0	+ 0·1	+ 0·1	0·0	+ 0·3
4	35·1	32·7	34·1	35·0	34·6	32·7	+0·1	+0·1	−0·2	0·0	0·0	0·0	33·5	33·5	33·0	31·6	− 0·2	− 0·1	0·0	+ 0·1
5	34·7	32·0	32·0	33·9	34·1	32·8	−0·2	+0·6	−0·2	0·0	−0·1	0·0	31·2	32·0	32·0	31·2	+ 0·1	+ 0·1	− 0·1	0·0
6	40·0	32·8	34·0	38·0	37·8	35·2	−1·0	+0·3	0·0	+0·1	−0·5	−0·2	32·7	35·8	35·2	34·1	− 0·1	− 0·1	− 0·2	− 0·2
7	37·6	32·4	33·0	36·0	37·5	33·9	−0·7	−0·1	+0·1	−0·1	0·0	+0·2	32·0	33·0	34·0	32·1	0·0	+ 0·1	− 0·1	+ 0·1
8	37·2	32·3	34·8	34·2	35·9	36·3	+0·2	+0·3	+0·1	−0·2	+0·1	0·0	34·0	34·0	35·2	35·7	0·0	− 0·1	0·0	+ 0·2
9	37·7	31·1	...	...	...	...	0·0	+0·5	...	...	...	...	...	...	...	...	...	...	...	...
10	34·7	27·4	29·9	33·0	33·0	32·3	0·0	+0·3	+0·1	0·0	+0·2	+0·1	28·6	31·0	31·8	31·0	+ 0·2	+ 0·1	+ 0·1	+ 0·4
11	39·4	25·3	29·8	37·4	39·2	33·2	−0·4	+0·3	+0·1	+0·6	−0·1	+0·6	28·2	33·7	33·9	31·0	+ 0·3	+ 0·6	+ 0·1	+ 0·2
12	35·6	25·2	27·1	33·6	35·5	25·5	−0·3	+1·0	−0·1	+0·1	0·0	+0·7	26·3	30·1	30·2	24·2	− 0·2	+ 0·4	0·0	+ 0·6
13	37·0	19·9	26·5	35·1	35·6	30·7	−0·7	+0·9	−0·3	−0·2	0·0	+0·1	25·8	31·2	31·9	29·7	− 0·3	− 0·6	+ 0·1	0·0
14	33·2	27·3	27·5	30·2	32·9	31·0	−0·3	0·0	−0·2	−0·1	+0·1	−0·3	27·2	29·7	31·0	30·1	− 0·2	+ 0·2	+ 0·1	− 0·2
15	34·4	24·7	33·2	34·0	31·9	24·9	−0·5	+0·7	−0·1	+0·2	+0·1	+0·1	31·9	32·8	30·1	23·7	− 0·5	0·0	− 0·1	+ 0·2
16	34·8	14·9	...	...	...	...	−0·1	+0·6	...	...	...	...	...	...	...	...	...	...	...	...
17	39·0	20·3	25·2	37·2	39·0	31·2	0·0	+0·2	+0·3	+0·2	+0·5	0·0	24·8	33·4	35·4	30·2	+ 0·2	+ 0·1	+ 0·3	+ 0·1
18	36·1	31·2	33·1	35·0	35·8	35·5	0·0	0·0	−0·2	+0·1	+0·1	+0·1	31·9	33·4	34·4	34·8	0·0	+ 0·1	0·0	+ 0·4
19	35·9	32·9	33·6	34·0	34·0	34·8	0·0	+0·4	−0·2	−0·3	+0·1	0·0	31·7	31·4	31·5	33·4	− 0·2	− 0·3	− 0·2	0·0
20	36·2	32·9	33·6	33·9	36·2	35·5	−0·1	0·0	−0·1	0·0	+0·1	+0·1	33·3	33·4	35·0	35·1	− 0·2	− 0·1	− 0·1	+ 0·1
21	50·1	29·3	31·2	39·5	47·1	39·5	+0·2	0·0	−0·2	−0·2	−0·1	+0·3	31·1	38·4	44·0	38·1	− 0·1	− 0·4	0·0	+ 0·3
22	50·0	33·9	37·6	46·1	49·0	41·2	−0·2	+0·6	−0·1	−0·1	+0·3	+0·1	37·2	42·8	45·0	39·3	− 0·4	− 0·1	0·0	+ 0·2
23	49·7	40·4	...	...	...	...	−0·6	−0·5	...	...	..	...	...	...	...	...	...	...	...	...
24	46·6	43·0	43·8	43·5	44·0	43·2	−0·5	+0·6	+0·1	−0·4	−0·3	−0·1	42·0	42·9	43·5	43·0	0·0	− 0·3	− 0·2	0·0
25	47·5	38·9	42·2	45·3	45·6	39·0	−0·1	+0·3	−0·3	0·0	−0·1	0·0	42·1	43·3	43·1	37·9	− 0·3	− 0·4	− 0·1	+ 0·1
26	46·1	35·6	37·7	45·0	43·5	42·9	−0·3	+0·2	−0·1	−0·5	−0·1	+0·2	37·0	41·5	40·6	42·1	− 0·1	+ 0·2	0·0	+ 0·1
27	51·8	42·3	45·9	51·8	49·0	45·3	0·0	+0·1	+0·1	0·0	−0·3	−0·2	44·0	47·3	46·2	43·8	− 0·1	− 0·5	− 0·4	+ 0·3
28	53·1	42·1	48·1	50·2	52·2	42·1	−1·0	+0·7	+0·2	−0·6	−0·2	+0·6	46·0	47·2	48·0	41·4	+ 0·2	− 0·5	− 0·1	+ 0·5
Means	40·0	31·3	34·2	38·0	39·0	35·3	−0·2	+0·3	0·0	−0·1	0·0	+0·1	33·1	35·7	36·3	34·1	− 0·1	− 0·1	0·0	+ 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	54·0	35·6	39·8	51·1	50·2	42·2	+0·5	+0·4	0·0	−0·2	−0·3	+0·5	39·8	48·0	46·9	41·1	0·0	− 0·2	0·0	+ 0·5
2	54·0	39·1	...	...	...	...	+0·4	+0·6	...	...	...	...	...	...	...	...	...	...	...	...
3	51·0	37·4	43·1	47·3	50·9	40·1	−0·5	+0·1	0·0	−0·1	−0·6	+0·7	42·5	43·8	46·0	39·6	− 0·1	+ 0·1	− 0·4	+ 0·8
4	42·1	36·1	38·2	41·3	42·0	36·1	−1·7	+0·1	−0·2	−0·7	−0·5	0·0	37·9	40·2	41·0	36·1	0·0	− 0·7	− 0·7	0·0
5	45·0	33·4	34·1	37·9	45·0	36·0	−1·6	+0·2	+0·1	0·0	−0·2	+0·1	34·1	37·9	43·7	36·0	+ 0·1	0·0	+ 0·5	+ 0·1
6	46·0	29·2	32·6	39·2	42·6	38·2	−2·2	−0·2	−0·1	−0·6	−0·1	+1·0	32·6	39·1	40·8	37·7	− 0·1	− 0·6	+ 0·1	+ 0·9
7	50·8	26·5	38·0	47·6	50·8	47·2	−0·2	−0·1	−0·9	+0·4	−0·1	−0·3	37·6	45·0	46·8	46·1	− 0·4	− 0·2	0·0	− 0·4
8	50·9	40·3	44·2	48·0	50·0	47·5	−0·1	+0·1	−0·4	−0·3	+0·1	−0·2	44·0	46·8	46·8	45·0	− 0·1	0·0	− 0·1	− 0·3
9	54·2	46·3	...	...	...	...	−0·6	−0·1	...	...	...	...	...	...	...	...	...	...	...	...
10	50·2	40·4	40·7	45·8	49·1	46·1	−0·7	0·0	0·0	−0·8	−0·3	0·0	40·7	44·9	47·2	45·0	0·0	− 0·3	− 0·3	+ 0·2
11	47·7	42·0	44·2	45·6	47·7	44·7	−0·1	+0·7	−0·2	−0·2	0·0	0·0	43·2	44·7	46·1	44·1	− 0·2	0·0	− 0·2	+ 0·4
12	53·6	41·2	44·9	50·3	52·0	43·9	−0·3	+0·1	0·0	−0·7	−0·4	+0·5	43·0	45·5	44·0	41·0	− 0·5	− 1·1	− 0·2	+ 0·3
13	56·8	35·3	43·9	55·5	55·0	42·3	−0·1	+1·0	−0·5	+0·9	+0·6	+0·3	40·5	46·1	46·0	40·1	− 0·2	+ 0·3	− 0·5	+ 0·3
14	55·7	38·2	48·6	54·1	48·3	47·2	−0·1	+0·9	−0·1	+0·3	−0·6	−0·3	45·5	49·2	47·1	46·2	− 0·4	− 0·2	− 0·8	− 0·3
15	52·2	41·6	46·0	48·4	50·8	46·9	−0·7	+1·6	+0·1	−0·3	+0·2	0·0	41·4	42·8	43·2	42·1	+ 0·3	+ 0·2	− 0·1	0·0
16	53·3	41·0	...	...	...	...	−0·4	+0·8	...	...	...	...	...	...	...	...	...	...	...	...
17	59·7	38·6	48·2	55·6	57·1	49·8	−0·3	+0·7	−0·3	−0·3	0·0	+0·4	47·3	51·4	51·3	46·5	− 0·4	− 0·3	− 0·3	+ 0·2
18	49·8	44·8	47·1	48·0	48·6	46·3	+0·3	+0·6	−0·3	−0·4	−0·3	0·0	43·4	44·0	44·0	43·1	+ 0·1	+ 0·4	− 0·2	+ 0·1
19	56·2	43·3	48·5	54·7	53·9	45·2	−0·9	+0·3	0·0	+0·1	+0·1	+0·1	44·0	47·0	47·8	43·2	− 0·2	− 0·1	+ 0·1	+ 0·2
20	49·0	40·3	46·9	48·6	47·3	41·7	−1·0	−0·1	+0·1	−0·6	−0·4	+0·1	44·7	46·8	45·9	39·8	+ 0·5	− 0·2	− 0·2	+ 0·3
21	49·9	38·2	44·4	49·5	47·8	40·3	−0·9	+0·7	+0·4	−0·2	+0·3	+0·2	41·0	43·0	42·3	38·6	+ 0·3	− 0·4	− 0·1	+ 0·2
22	46·7	36·7	43·7	45·6	43·0	39·1	−1·2	+0·8	−0·1	−0·1	+0·2	−0·1	40·8	42·0	41·1	35·2	− 0·3	− 0·3	0·0	− 0·2
23	49·4	31·8	...	...	...	...	−0·6	+0·5	...	...	...	...	...	...	...	...	...	...	...	...
24	46·4	33·2	43·2	44·7	42·7	44·4	−1·5	+0·6	+0·2	−0·4	−0·2	+0·1	38·7	40·5	39·1	41·1	− 0·3	+ 0·3	− 0·3	0·0
25	47·8	40·5	41·8	45·1	47·3	41·1	−0·2	+0·3	−0·1	−0·5	−0·7	+0·4	38·0	38·2	38·6	36·8	0·0	− 0·3	− 0·4	+ 0·5
26	46·8	33·7	40·6	45·0	46·2	40·0	−0·2	+0·6	+0·4	+0·1	−0·4	−0·5	38·0	38·2	39·6	39·6	+ 0·5	+ 0·5	− 0·1	+ 0·2
27	58·3	38·3	53·1	55·0	56·7	51·1	−0·7	+0·1	−0·2	−0·3	−0·1	+0·4	50·6	50·0	50·3	46·5	+ 0·3	+ 0·1	+ 0·1	+ 0·4
28	55·2	44·2	...	...	...	...	−0·8	−0·6	...	...	...	...	...	...	...	...	...	...	...	...
29	54·8	41·3	47·0	49·7	52·1	51·1	+0·3	+0·7	−0·5	−0·5	−0·4	0·0	45·0	49·0	50·8	46·0	+ 0·3	− 0·3	− 0·3	+ 0·4
30	51·1	36·3	...	...	...	...	0·0	+0·2	...	...	...	...	...	...	...	...	...	...	...	...
31	59·5	41·9	...	...	...	...	−1·0	+0·2	...	...	...	...	...	...	...	...	...	...	...	...
Means	51·6	38·3	43·5	48·1	49·0	43·7	−0·6	+0·4	−0·1	−0·2	−0·2	+0·1	41·4	44·3	44·8	41·5	0·0	− 0·1	− 0·2	+ 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	55·1	46·2	49·7	50·7	53·0	47·1	−0·8	+0·1	−0·1	−0·2	−0·2	+0·1	46·2	47·6	49·7	42·9	0·0	+ 0·1	+ 0·2	+ 0·4
2	49·1	38·2	43·9	49·1	48·7	43·5	−0·9	+0·5	−0·6	−0·3	−0·3	0·0	39·5	42·5	42·4	39·3	− 0·2	+ 0·3	+ 0·5	+ 0·2
3	52·5	36·2	43·4	49·6	52·2	44·8	−0·6	+0·7	−0·4	−0·3	−0·7	+0·2	38·9	41·7	43·5	41·0	+ 0·3	+ 0·1	− 0·5	− 0·1
4	51·8	35·2	44·9	49·1	51·3	45·7	−0·7	+0·7	+0·1	−0·1	−0·4	+0·3	40·6	43·0	43·0	40·4	+ 0·8	+ 0·4	+ 0·2	+ 0·3
5	51·0	39·3	45·1	47·7	50·0	44·3	−1·0	+0·7	−0·6	−0·5	−0·5	−0·4	43·7	46·1	47·7	43·0	− 0·7	− 0·5	− 0·2	+ 0·1
6	47·3	37·7	...	...	...	...	−1·2	+0·3	...	...	...	...	...	...	...	...	...	...	...	...
7	44·8	31·7	41·2	42·8	44·3	41·0	−0·9	+0·8	0·0	−0·2	−0·2	−0·1	36·9	37·6	38·7	37·1	0·0	− 0·1	+ 0·1	− 0·4
8	43·6	37·2	40·2	41·9	42·9	37·3	−1·0	0·0	−0·1	+0·4	−0·1	−0·1	35·8	37·1	37·1	34·1	− 0·1	+ 0·2	− 0·1	+ 0·2
9	46·6	34·9	41·8	45·0	45·3	39·3	−1·3	+0·6	0·0	−0·1	−0·4	0·0	38·8	38·4	39·2	35·1	0·0	− 0·2	− 0·5	+ 0·3
10	46·1	36·7	40·6	44·8	46·0	37·0	−0·8	+0·1	−0·5	−0·2	−0·6	+0·3	37·5	40·0	40·4	35·8	− 0·2	− 0·1	0·0	+ 0·2
11	47·1	35·6	44·7	47·0	45·0	41·2	−0·5	+0·2	−0·1	−0·2	+0·2	−0·2	41·0	42·9	42·9	40·0	− 0·1	+ 0·1	+ 0·2	0·0
12	51·1	40·2	43·0	49·8	51·0	43·4	−1·2	0·0	−0·6	−0·8	−0·7	+0·9	42·0	46·0	47·9	43·0	− 0·6	− 0·5	− 0·7	+ 0·7
13	56·6	37·8	...	...	...	...	−3·9	+0·4	...	...	...	...	...	...	...	...	...	...	...	...
14	54·2	32·6	47·9	54·2	52·8	42·9	−0·8	+0·5	−0·6	−0·2	−0·5	0·0	41·3	44·1	45·1	41·8	− 0·4	0·0	− 0·1	+ 0·2
15	60·1	42·7	48·8	55·2	57·8	47·1	−1·3	+0·4	−0·4	−0·3	−0·6	−0·4	48·3	53·5	54·1	46·2	− 0·3	− 0·3	− 0·3	− 0·2
16	57·7	44·5	49·2	54·1	57·2	51·6	−0·3	+0·6	−0·5	−0·5	−0·4	−0·1	46·2	48·7	49·0	48·1	− 0·3	− 0·3	+ 0·1	+ 0·4
17	60·1	41·1	47·7	51·0	57·2	52·1	−0·4	+0·9	0·0	0·0	0·0	−0·5	45·8	48·5	51·4	48·0	0·0	− 0·1	0·0	+ 0·3
18	58·8	38·4	49·9	58·4	56·9	47·0	−1·2	+0·5	−0·1	−0·3	−0·4	+0·6	47·2	52·7	50·2	44·8	− 0·3	+ 0·1	− 0·5	+ 0·6
19	67·0	39·2	56·4	66·0	65·8	56·9	−1·2	+0·9	−0·7	−0·3	−0·4	+0·2	51·3	54·8	54·9	51·3	− 1·1	− 0·3	− 0·8	− 0·1
20	61·9	45·6	...	...	...	...	−1·1	+0·8	...	...	...	...	...	...	...	...	...	...	...	...
21	62·2	47·2	52·8	58·8	58·7	52·8	+0·2	+1·0	−1·0	−0·7	−0·7	−0·1	50·7	52·3	53·8	49·1	+ 0·1	+ 0·1	+ 0·1	0·0
22	57·1	49·2	54·0	53·0	56·3	49·2	−1·1	+0·3	−0·9	−0·7	−0·4	+0·3	51·4	51·5	52·2	46·9	− 0·5	− 0·4	− 0·7	+ 0·4
23	59·1	43·3	53·2	56·8	58·1	47·3	−3·1	+0·8	−0·1	+0·1	−1·0	+0·4	47·7	49·7	50·1	45·0	− 0·1	+ 0·1	− 0·5	+ 0·2
24	63·3	41·3	57·9	60·2	62·3	52·2	−1·7	+1·0	+0·4	−0·7	−0·4	+0·4	50·1	51·2	52·2	48·2	− 0·4	− 0·4	− 0·5	+ 0·3
25	64·1	38·9	58·8	64·1	59·0	49·3	−1·6	+0·7	−0·8	−1·6	−0·2	−0·2	48·2	50·5	49·0	46·2	− 1·3	− 0·5	+ 0·1	− 0·1
26	53·8	42·5	45·8	52·6	49·9	45·7	−2·2	+0·2	−0·2	−1·1	0·0	0·0	43·8	48·0	46·0	43·8	0·0	− 0·6	− 0·1	0·0
27	55·5	42·9	...	...	...	...	−0·5	+0·5	...	...	...	...	...	...	...	...	...	...	...	...
28	52·0	40·2	47·7	51·4	51·8	40·4	−0·6	+0·7	0·0	−0·5	+0·5	+0·1	41·0	44·0	42·3	37·1	− 0·3	+ 0·6	+ 1·1	+ 0·2
29	51·0	35·8	46·7	48·4	50·9	47·9	−0·7	+0·5	−0·5	+1·0	−0·2	+0·1	41·3	42·7	43·4	43·3	− 0·1	+ 0·7	− 0·1	+ 0·2
30	54·8	41·3	49·7	54·0	52·3	50·1	−0·6	+0·2	−0·6	−0·3	−0·4	+0·4	44·7	46·8	47·3	45·1	− 0·2	+ 0·1	0·0	+ 0·2
Means	54·5	39 8	47·9	52·1	53·0	46·0	−1·1	+0·5	−0·3	−0·3	−0·3	+0·1	43·8	46·2	46·7	42·9	− 0·2	− 0·1	− 0·1	+ 0·2

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

MAY.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	54·5	40·3	50·0	54·0	51·0	40·6	−1·5	+0·5	−0·2	−1·8	−0·2	+0·8	43·9	47·0	44·2	39·2	− 0·1	− 1·1	− 0·1	+ 0·6
2	56·3	34·3	44·1	52·9	54·0	47·7	−1·0	+0·4	−0·7	−0·6	+0·1	0·0	43·8	49·4	49·0	46·0	− 0·2	− 0·6	+ 0·2	0·0
3	55·0	41·1	49·8	52·5	47·8	45·4	−1·4	+0·6	−0·2	−1·2	−0·3	−0·3	44·9	46·5	45·5	44·1	+ 0·1	− 0·7	− 0·2	− 0·1
4	52·7	39·4	...	...	...	...	−1·2	+0·4	...	...	...	...	...	...	...	...	...	...	...	...
5	52·1	37·0	45·0	47·3	48·3	39·9	−0·6	+0·8	−0·3	−0·5	−0·4	+0·2	42·9	42·9	42·7	38·3	0·0	− 0·2	− 0·1	+ 0·4
6	48·6	35·2	41·0	46·1	48·3	40·1	−0·6	+0·7	+0·2	−0·6	−0·1	−0·3	39·1	41·3	40·4	38·4	+ 0·2	− 0·4	+ 0·1	+ 0·5
7	49·9	35·3	40·9	42·2	42·1	41·0	−2·1	+0·1	0·0	−0·5	−0·8	+0·3	38·4	40·4	41·3	40·6	+ 0·1	− 0·4	− 0·4	+ 0·4
8	49·3	39·1	43·8	42·0	46·8	42·2	−1·6	+0·6	+0·8	−0·1	0·0	+0·2	40·7	40·2	43·7	40·2	+ 0·3	− 0·1	0·0	+ 0·5
9	50·4	37·2	44·6	45·4	47·6	42·0	−1·2	+0·2	−0·2	−0·8	+0·1	−0·1	40·6	41·1	42·0	40·2	+ 0·3	− 0·4	+ 0·1	+ 0·0
10	50·0	34·7	44·0	47·2	49·3	40·1	−2·0	+0·4	−0·5	−0·5	−0·4	+0·6	38·9	41·7	42·6	39·3	+ 0·2	− 0·1	− 0·4	+ 0·4
11	49·6	38·2	...	...	...	...	−1·1	+0·7	...	...	...	...	...	...	...	...	...	...	...	...
12	52·8	40·4	44·6	43·0	49·2	43·0	−0·9	+0·2	−0·5	+0·1	+0·1	+0·1	44·0	42·6	42·8	40·3	− 0·7	0·0	− 0·1	0·0
13	47·2	36·4	44·8	43·0	42·8	39·7	−1·7	+0·2	−0·1	−0·3	−0·2	0·0	39·4	39·1	39·7	37·4	− 0·2	− 0·1	− 0·7	0·0
14	50·8	30·0	44·8	48·9	48·8	39·2	−1·2	+0·2	+0·4	−0·6	+1·3	+0·6	39·0	40·9	41·8	38·8	+ 0·3	− 0·7	0·0	+ 0·4
15	54·0	33·4	42·6	44·4	52·0	51·7	−1·0	+0·4	−0·7	−0·3	−0·9	0·0	41·3	42·7	48·5	49·8	− 0·5	− 0·2	− 1·0	0·0
16	54·3	48·2	51·0	53·6	51·1	53·2	−1·2	0·0	0·0	−0·1	−0·4	−0·1	46·6	47·7	49·3	51·8	− 0·1	+ 0·1	− 0·3	0·0
17	56·9	44·3	52·1	56·1	51·1	44·8	−1·4	−0·1	−0·1	−0·7	−0·6	0·0	46·7	48·6	49·1	43·0	0·0	− 0·5	− 0·6	0·0
18	54·6	42·5	...	...	...	...	−1·2	+0·3	...	...	...	...	...	...	...	...	...	...	...	...
19	52·5	41·2	...	...	...	...	−0·6	+0·3	...	...	...	...	...	...	...	...	...	...	...	...
20	47·7	40·6	45·1	45·3	45·2	45·9	−0·3	+0·4	−0·4	−1·0	−0·3	+0·2	40·2	41·7	42·9	43·2	− 0·3	− 0·4	− 0·1	− 0·2
21	54·1	42·1	48·0	51·1	52·4	47·1	−0·9	+0·3	−0·7	−0·6	−0·3	+0·6	43·8	44·0	45·0	45·1	− 0·6	− 0·2	+ 0·2	+ 0·3
22	55·1	41·3	52·1	55·1	50·5	49·1	−0·9	+0·8	−0·6	−0·4	−0·7	−0·3	47·4	48·4	47·7	49·0	+ 0·1	− 0·1	− 0·3	− 0·2
23	59·8	49·1	52·0	58·5	59·0	59·0	−1·3	+0·4	−0·3	−0·3	−0·3	+0·2	51·4	54·9	55·5	56·9	− 0·3	− 0·1	− 0·2	+ 0·3
24	67·8	50·4	60·6	63·0	65·0	58·3	−0·1	+0·3	−0·2	−0·8	−1·8	−0·4	56·1	57·2	58·0	55·5	− 0·3	− 0·6	− 1·4	− 0·3
25	65·5	53·1	...	...	...	...	−1·6	+0·8	...	...	...	...	...	...	...	...	...	...	...	...
26	66·8	44·4	57·2	60·0	65·8	59·7	−1·1	+0·4	−0·6	−0·5	−0·6	+0·2	49·5	51·7	55·6	52·7	+ 0·3	+ 0·2	+ 0·1	+ 0·7
27	68·9	49·0	62·0	65·7	68·6	56·9	−1·2	+0·4	−1·1	−1·3	−1·1	+0·2	56·7	57·5	59·1	53·2	0·0	− 0·3	− 0·2	+ 0·5
28	66·2	48·0	61·0	65·5	60·3	53·1	−2·0	+0·6	0·0	−0·4	−1·2	−0·1	53·7	58·2	56·9	50·1	+ 0·3	0·0	− 0·4	+ 0·1
29	61·4	50·2	55·9	61·2	59·4	51·3	−2·3	+0·4	+0·3	−0·1	−0·2	−0·2	49·7	50·6	50·8	51·0	+ 0·4	− 0·1	+ 0·3	0·0
30	64·4	47·2	51·4	59·1	64·1	58·0	−1·8	+0·1	−0·2	−0·9	−1·3	+0·2	51·3	56·4	59·7	57·2	− 0·1	− 0·4	− 1·6	+ 0·1
31	69·2	54·6	61·2	66·3	67·9	60·3	−1·8	+0·1	−1·2	−1·0	−2·6	−0·2	58·5	60·0	61·6	59·0	− 0·9	− 0·9	− 1·8	+ 0·1
Means	56·1	41·9	49·6	52·7	53·4	48·1	−1·3	+0·4	−0·3	−0·6	−0·5	+0·1	45·7	47·4	48·3	46·2	− 0·1	− 0·3	− 0·3	+ 0·2

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

JUNE.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum	9h	Noon.	15h	21h	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	72·0	55·5	...	...	...	...	−1·9	+0·2	...	...	...	...	...	...	...	...	...	...	...	...
2	69·3	51·3	55·9	64·1	67·7	56·3	−1·3	+0·1	−0·1	−1·3	−0·5	−0·3	53·9	57·7	59·0	50·9	− 0·1	− 1·2	+ 0·4	+ 0·1
3	76·0	50·2	61·4	71·0	74·6	66·1	−1·1	+0·8	−0·3	−1·3	−1·3	0·0	56·8	62·6	66·0	58·0	− 0·9	− 0·8	− 1·5	+ 0·1
4	66·5	54·6	55·8	56·0	60·4	56·0	+0·4	+0·3	0·0	−0·2	−0·5	+0·2	54·0	54·7	56·4	53·9	− 0·2	− 0·1	− 0·3	0·0
5	65·0	52·2	58·7	62·2	60·5	56·9	−1·0	+0·1	0·0	−0·3	−0·3	+0·6	54·2	53·3	53·6	51·7	0·0	− 0·1	− 0·1	+ 0·5
6	57·6	49·2	55·8	54·0	57·6	55·8	−1·4	+0·1	−0·2	−0·4	−1·0	+0·1	52·1	52·5	56·0	54·1	− 0·2	− 0·4	− 0·8	− 0·2
7	59·3	47·2	54·7	54·0	51·6	47·9	−1·7	−0·6	−1·0	0·0	−0·1	+0·1	47·3	48·3	47·3	45·3	− 0·3	0·0	− 0·1	+ 0·1
8	56·1	46·2	...	...	...	...	−1·3	+0·1	...	...	...	...	...	...	...	...	...	...	...	...
9	55·2	44·4	48·0	50·3	55·0	46·9	−0·8	+0·2	−0·3	−0·5	+0·1	0·0	44·7	46·5	49·0	44·4	− 0·1	− 0·5	− 0·3	− 0·3
10	56·4	41·4	50·1	50·9	53·8	47·3	−1·7	+0·3	−0·7	−0·4	−0·2	+0·4	44·6	44·8	45·4	44·6	− 0·2	− 0·3	0·0	+ 0·3
11	59·0	42·9	55·0	57·8	56·6	50·1	−2·6	+0·7	−0·5	−0·7	−1·0	+0·4	48·5	49·7	48·0	45·5	− 0·2	− 0·5	− 0·7	+ 0·4
12	55·5	48·5	52·7	53·1	55·1	53·0	−0·6	+0·3	−0·8	−0·5	−0·3	+0·3	50·5	49·8	50·2	51·0	− 0·7	− 0·5	− 0·3	+ 0·1
13	53·4	50·2	52·6	53·4	51·8	50·2	−1·4	−0·1	−0·5	−0·5	−0·6	−0·3	51·0	52·4	51·0	49·6	− 0·5	− 0·3	− 0·3	− 0·1
14	53·9	47·4	49·3	49·1	51·3	47·4	−1·1	+0·2	−0·4	−0·5	−0·3	−0·3	47·7	48·0	49·9	47·0	+ 0·1	0·0	− 0·2	− 0·1
15	57·5	46·7	...	...	...	...	−2·7	+0·2	...	...	...	...	...	...	...	...	...	...	...	...
16	58·4	48·2	52·6	51·0	52·9	51·8	−2·6	+0·7	−0·5	−0·4	−0·1	−0·5	51·2	49·7	49·0	50·0	− 0·3	− 0·4	+ 0·1	− 0·4
17	60·5	45·0	53·8	57·4	58·9	52·5	−1·2	+0·4	−1·6	−1·1	−0·5	0·0	50·5	52·0	53·1	51·5	− 0·9	− 0·2	− 0·3	+ 0·2
18	62·3	48·2	56·1	59·9	62·3	53·0	−0·9	+0·8	0·0	−0·6	−0·6	+0·3	52·6	53·4	56·4	52·0	0·0	− 0·9	0·0	+ 0·3
19	71·0	45·4	64·9	67·9	69·5	59·4	−1·8	+0·5	−1·0	−0·9	−1·1	−0·1	57·3	58·5	58·7	57·0	− 0·7	− 0·8	− 0·5	− 0·2
20	62·0	54·2	57·2	54·2	59·3	56·5	−1·4	−0·2	−1·0	−0·6	−0·5	+0·4	56·7	53·3	56·1	54·7	− 0·7	− 0·2	− 0·5	+ 0·3
21	68·2	51·4	58·3	67·0	63·0	59·1	−3·1	+0·6	−0·5	−1·6	−0·7	+0·4	54·2	59·1	58·6	56·6	− 0·3	− 1·0	− 0·4	+ 0·6
22	68·7	50·5	...	...	...	...	−1·6	+0·5	...	...	...	...	...	...	...	...	...	...	...	...
23	72·7	54·6	66·8	68·7	70·4	63·5	−1·4	+0·4	−0·2	−1·3	−0·8	+0·7	56·0	61·5	62·7	61·6	+ 0·1	− 1·2	0·0	+ 0·8
24	78·2	54·3	72·0	76·5	78·0	64·8	−1·1	+0·6	−0·2	−0·6	−0·2	+0·6	63·0	65·2	64·6	61·9	− 0·4	− 0·1	− 0·5	+ 0·2
25	68·1	55·4	66·1	67·2	67·6	59·0	−0·9	+0·2	+0·1	−0·9	0·0	+0·2	59·1	58·4	59·3	55·9	− 0·5	− 0·6	0·0	+ 0·1
26	71·8	54·3	...	...	...	...	−0·8	+0·7	...	...	...	...	...	...	...	...	...	...	...	...
27	76·4	53·2	...	...	...	...	−0·6	+0·9	...	...	...	...	...	...	...	...	...	...	...	...
28	79·1	54·3	74·9	78·4	77·5	65·2	−0·9	+0·3	+0·1	−0·5	−0·7	+0·8	63·6	63·3	65·0	62·0	+ 0·1	+ 0·3	− 0·5	+ 0·4
29	79·5	58·0	...	...	...	...	−1·1	+0·8	...	...	...	...	...	...	...	...	...	...	...	...
30	80·0	53·6	70·3	76·3	78·0	62·0	−0·7	+0·6	+0·2	+0·1	+0·5	−0·1	62·9	63·8	64·1	61·7	+ 0·2	− 0·5	+ 0·1	0·0
Means	65·7	50·3	58·4	60·9	62·3	55·7	−1·3	+0·4	−0·4	−0·7	−0·5	+0·2	53·6	54·7	55·6	53·0	− 0·3	− 0·4	− 0·3	+ 0·1

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	71·3	55·1	58·0	63·8	70·7	55·1	−1·8	−0·1	−0·6	−0·3	−0·6	−0·1	57·0	60·0	63·9	54·5	− 0·4	− 0·1	− 0·6	− 0·2
2	60·8	49·4	53·8	56·0	59·0	54·0	−1·3	+0·1	+0·1	−0·4	−0·4	+0·3	49·0	50·0	51·3	49·3	− 0·2	− 0·2	− 0·7	+ 0·1
3	68·1	46·1	61·8	62·9	64·0	55·5	+0·1	+0·9	−1·0	−0·8	−0·6	+0·4	55·5	53·6	55·3	52·0	+ 0·1	− 1·2	− 0·3	+ 0·3
4	75·0	47·1	62·7	71·3	73·0	68·0	−1·7	+0·5	−0·2	−1·3	−1·5	0·0	54·7	60·8	62·0	62·1	− 0·1	− 0·7	− 0·7	0·0
5	75·4	59·8	66·6	71·6	74·9	63·0	−1·5	+0·5	−0·8	−0·1	−0·1	+0·3	61·8	65·0	65·8	60·7	− 0·9	0·0	− 0·9	0·0
6	78·9	57·4	...	...	...	...	−4·3	+0·2	...	...	...	...	...	...	...	...	...	...	...	...
7	79·1	59·1	72·2	77·3	78·0	68·8	−2·0	+0·9	−0·2	−0·8	−0·8	+1·6	65·8	67·0	65·6	62·7	+ 0·2	+ 0·1	0·0	+ 1·1
8	81·8	55·2	68·6	73·5	81·2	71·8	−1·7	+0·6	−0·2	−0·7	−0·6	+0·1	61·3	63·2	65·8	63·9	− 0·1	− 0·4	0·0	+ 0·2
9	73·2	57·1	64·6	68·5	69·0	57·1	−2·0	−0·2	−0·3	−0·6	−0·5	−0·2	61·3	64·0	65·0	55·7	− 0·1	− 0·4	+ 0·1	0·0
10	64·3	53·2	59·0	58·7	60·7	55·0	−2·3	−0·8	−0·6	−0·3	−0·4	0·0	53·9	55·0	56·4	51·0	− 0·2	+ 0·1	− 0·3	0·0
11	62·3	51·4	58·5	59·0	59·8	51·4	−2·1	+0·4	−0·6	−0·2	−0·1	+0·1	49·5	51·0	52·6	49·0	− 0·2	+ 0·1	+ 0·3	+ 0·2
12	69·7	43·3	59·5	65·2	69·0	57·7	−3·2	+0·9	−0·6	−0·3	−0·1	0·0	51·0	55·3	59·0	52·1	− 1·0	+ 0·6	+ 0·4	0·0
13	78·0	53·4	...	...	...	...	−3·0	+0·3	...	...	...	...	...	...	...	...	...	...	...	...
14	83·1	51·3	73·1	79·8	82·0	63·3	−3·0	+0·6	−0·6	−0·3	−1·0	+0·6	61·1	63·5	65·0	59·6	− 0·7	− 0·2	− 0·4	+ 0·8
15	83·0	56·2	73·9	79·8	81·9	71·0	−1·6	+0·6	−0·4	0·0	−1·6	+0·2	64·1	64·6	65·0	62·5	− 0·2	+ 0·4	− 1·0	+ 0·2
16	76·6	57·4	68·6	75·0	71·5	60·5	−0·3	+0·1	−0·1	−0·5	0·0	−0·2	62·0	64·3	62·3	56·1	+ 0·1	0·0	0·0	− 0·3
17	73·2	52·2	64·7	70·5	71·8	64·0	−2·5	+1·0	−0·5	−1·7	−0·7	+0·3	57·5	58·4	59·0	57·1	− 0·5	− 0·9	− 0·9	+ 0·3
18	66·7	51·2	59·3	61·8	65·3	57·2	−2·2	+1·0	−0·7	−1·1	−0·6	−0·3	53·6	53·4	53·5	49·1	− 0·4	− 0·5	− 0·1	+ 0·1
19	65·0	47·2	55·6	60·5	63·1	55·0	−2·0	+0·5	−0·2	−0·8	−1·4	0·0	51·4	51·3	51·8	51·5	− 0·1	− 0·6	− 1·0	0·0
20	57·6	50·8	...	...	...	...	−0·4	+0·2	...	...	...	...	...	...	...	...	...	...	...	...
21	57·2	49·5	51·2	56·0	56·9	52·0	−1·4	+0·2	−0·5	−0·4	0·0	0·0	49·1	51·7	51·6	49·8	− 0·4	− 0·5	0·0	0·0
22	56·5	49·2	53·2	54·1	55·5	54·4	−1·9	+0·7	+0·4	−0·3	−0·3	+0·1	49·3	51·2	50·8	53·0	0·0	− 0·1	− 0·1	− 0·3
23	66·0	53·2	56·0	59·0	62·6	59·1	−1·7	+0·4	−0·2	−0·0	−0·4	+0·3	53·8	55·6	57·2	55·2	− 0·5	0·0	− 1·1	− 0·1
24	66·9	53·3	60·7	65·1	64·0	59·0	−3·1	+0·8	−1·3	−0·7	−0·9	0·0	54·5	56·0	55·8	54·7	− 0·7	− 0·7	− 0·3	0·0
25	68·0	54·5	61·0	63·8	64·0	58·7	−2·8	+0·1	−0·9	−0·5	−0·7	+0·3	55·8	56·5	57·4	55·8	− 0·7	− 0·1	+ 0·2	0·0
26	72·3	54·7	66·0	71·7	70·4	62·0	−1·9	+0·1	−0·1	−1·2	−0·8	−0·9	61·7	60·7	61·1	57·6	− 0·1	0·0	− 0·6	− 1·0
27	63·7	56·2	...	...	...	...	−2·0	0·0	...	...	...	...	...	...	...	...	...	...	...	...
28	68·7	49·2	61·2	65·4	64·6	60·2	−2·2	−0·2	0·0	−2·0	−1·1	+0·2	54·8	56·8	56·9	55·1	0·0	− 1·4	− 0·5	+ 0·2
29	68·7	52·1	62·0	66·0	68·1	59·7	−1·2	+0·6	−0·3	−0·3	0·0	0·0	57·5	57·0	57·6	54·1	+ 0·2	− 0·2	0·0	0·0
30	66·2	51·2	62·2	63·5	64·8	58·0	−2·2	0·0	−0·5	−0·4	−0·7	+0·3	55·7	55·4	54·7	53·4	0·0	− 0·3	− 0·6	+ 0·1
31	65·6	52·1	57·1	63·0	63·9	56·4	−1·7	+0·4	−0·3	−1·1	−0·4	+0·2	52·7	54·6	54·9	51·8	0·0	− 0·1	+ 0·1	+ 0·4
Means	69·8	52·6	61·9	66·0	67·8	59·6	−2·0	+0·4	−0·4	−0·6	−0·6	+0·1	56·1	57·6	58·4	55·2	− 0·3	− 0·3	− 0·3	+ 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	64·0	50·4	57·3	62·1	63·1	50·4	−0·9	+0·1	−0·5	−0·1	−0·8	0·0	53·0	53·0	53·5	48·7	+ 0·1	− 0·2	− 0·4	0·0
2	68·4	43·3	60·1	64·5	63·5	57·0	−3·0	+0·5	0·0	−1·6	−1·0	0·0	55·4	56·5	55·2	56·0	0·0	− 0·7	− 0·5	0·0
3	66·3	54·2	...	...	...	...	−1·4	+0·1	...	...	...	...	...	...	...	...	...	...	...	...
4	66·6	53·9	...	...	...	...	−2·8	+0·5	...	...	...	...	...	...	...	...	...	...	...	...
5	71·3	54·9	64·0	65·1	67·9	59·8	−2·3	+0·5	−0·7	−0·9	−1·7	+0·5	58·5	58·9	60·5	56·6	− 0·8	+ 0·1	− 0·7	+ 0·3
6	69·6	58·2	60·6	63·3	65·0	60·7	−1·7	+0·4	−0·5	−0·6	−0·6	−0·1	60·2	61·6	62·9	60·2	− 0·5	− 0·3	− 0·3	0·0
7	68·8	56·5	62·4	65·4	65·3	60·0	−1·9	+0·6	−0·5	−0·2	−0·7	0·0	59·3	60·9	61·7	57·7	− 0·3	+ 0·2	− 0·8	0·0
8	67·1	54·0	61·3	63·6	57·3	54·0	−1·3	0·0	−0·6	−0·2	−0·4	0·0	58·0	58·2	54·1	51·2	− 0·5	− 0·3	− 0·2	0·0
9	59·6	47·3	...	...	...	...	−1·4	+0·6	...	...	...	...	...	...	...	...	...	...	...	...
10	64·3	51·3	...	...	...	...	−0·9	+0·6	...	...	...	...	...	...	...	...	...	...	...	...
11	61·4	45·3	53·1	57·1	60·0	55·0	−1·6	+0·3	−1·1	−0·7	−0·5	+0·2	48·8	48·9	50·4	50·4	− 0·5	− 0·1	− 0·3	+ 0·2
12	62·6	48·7	55·1	56·9	60·0	53·2	−1·3	0·0	−0·5	−0·1	+0·1	−0·8	52·2	53·5	54·8	51·7	− 0·4	− 0·2	+ 0·3	− 0·1
13	68·0	47·4	59·3	63·0	63·3	56·8	−2·9	+0·6	−0·6	−0·7	−0·7	+0·1	55·1	57·0	55·9	56·2	− 0·5	− 0·7	− 0·1	0·0
14	70·0	55·7	60·0	66·7	68·4	57·9	−1·8	+0·5	−0·7	−0·3	−0·4	+0·2	58·4	59·5	61·0	57·3	− 0·4	− 0·2	− 0·3	+ 0·1
15	69·8	56·7	63·0	66·0	68·9	58·8	−1·8	+0·6	−0·6	−0·9	−1·3	0·0	60·2	60·7	62·2	57·4	− 0·5	− 0·6	− 0·5	+ 0·4
16	77·0	49·2	67·0	76·1	75·6	63·6	−2·0	+0·9	+0·3	−0·1	−0·6	−0·1	58·6	64·7	63·0	59·2	+ 0·2	+ 0·4	− 0·1	− 0·1
17	66·0	58·3	...	...	...	...	−2·1	+0·1	...	...	...	...	...	...	...	...	...	...	...	...
18	65·0	57·2	63·4	60·4	63·1	60·5	−1·2	+0·5	−0·5	−1·0	−0·6	−0·2	60·0	60·0	62·2	60·2	+ 0·2	− 0·7	− 0·4	− 0·3
19	72·0	59·3	64·6	68·5	66·5	62·6	−1·1	+0·2	−0·2	−0·4	0·0	+0·6	60·4	61·5	60·9	59·2	− 0·4	− 0·2	− 0·1	+ 0·2
20	67·2	50·1	57·5	61·5	67·0	58·2	−1·0	+0·9	−1·3	+0·2	−0·5	+0·5	53·1	57·0	56·8	53·6	− 1·3	− 0·1	0·0	+ 0·1
21	66·0	52·2	59·6	63·0	65·2	55·0	−1·2	+0·6	−0·3	−0·8	−0·8	0·0	53·5	55·0	54·9	52·0	− 0·5	+ 0·1	− 0·2	0·0
22	72·0	47·2	64·7	70·1	71·0	59·3	−1·9	+0·8	0·0	−0·9	−0·6	0·0	57·3	60·3	61·2	56·7	0·0	− 0·6	− 0·5	0·0
23	66·3	55·3	61·7	64·9	65·8	61·2	−1·7	+0·1	0·0	−0·7	−0·3	−0·1	59·4	59·3	60·0	59·6	0·0	− 0·6	− 0·3	− 0·1
24	69·2	57·4	...	...	...	...	−1·7	0·0	...	...	...	...	...	...	...	...	...	...	...	...
25	67·3	51·3	62·0	66·3	66·9	58·3	−1·1	+0·1	+0·2	−0·3	−0·5	+0·1	56·2	57·9	57·8	55·0	+ 0·1	0·0	− 0·1	+ 0·1
26	69·7	49·4	62·9	65·1	63·3	57·8	−2·1	+0·7	+0·2	−0·6	−0·9	0·0	57·5	59·5	57·4	57·0	+ 0·1	− 0·6	− 0·2	0·0
27	69·3	48·2	54·5	60·0	65·1	53·7	−0·7	0·0	0·0	+0·2	−0·2	+0·4	54·2	56·2	59·0	53·1	0·0	0·0	− 0·1	+ 0·1
28	74·3	50·0	66·0	69·2	73·9	57·9	−1·1	+0·9	0·0	+0·4	−0·5	+0·1	61·1	62·4	61·2	55·5	− 0·1	+ 0·2	− 0·5	+ 0·1
29	77·0	55·1	70·1	75·8	76·0	62·3	0·0	+1·0	−0·5	+0·4	+0·2	0·0	62·6	61·0	60·1	57·1	− 0·5	+ 0·4	+ 0·3	0·0
30	65·9	56·1	60·1	65·3	62·2	56·1	−0·8	+0·6	−0·7	−0·4	−0·7	−0·1	56·9	58·1	57·6	54·4	− 0·5	− 0·4	− 0·6	− 0·2
31	66·2	55·2	...	...	...	...	−1·0	+0·2	...	...	...	...	...	...	...	...	...	...	...	...
Means	68·0	52·6	61·3	65·0	66·1	57·9	−1·5	+0·4	−0·4	−0·4	−0·6	+0·1	57·1	58·4	58·5	55·7	− 0·3	− 0·2	− 0·3	0·0

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	71·4	58·4	63·1	68·4	69·0	58·4	−1·6	+0·5	−1·2	−1·3	−0·7	+0·5	62·2	65·5	65·1	57·0	− 0·4	− 0·8	− 0·8	0·0
2	70·2	54·3	68·0	66·7	66·1	61·9	−1·7	+0·9	+0·3	−0·8	−0·6	+0·1	62·1	61·4	63·0	61·1	− 0·1	− 1·0	− 0·7	− 0·3
3	70·8	59·0	67·2	68·0	67·7	59·0	−1·0	+0·3	−0·6	0·0	−1·0	+0·2	62·4	58·8	58·6	56·6	− 0·4	0·0	− 0·1	− 0·2
4	69·7	56·8	64·1	66·9	69·0	57·8	−1·4	+0·6	−0·2	−0·4	−0·7	+0·4	58·7	59·8	60·4	55·2	− 0·2	− 0·4	− 0·6	0·0
5	66·1	53·5	58·4	64·1	64·7	56·6	−1·3	+0·7	−0·5	−0·5	−0·4	+0·6	56·2	58·1	57·9	56·0	− 0·5	+ 0·2	− 0·2	+ 0·3
6	69·7	51·1	57·7	67·4	68·2	54·2	−1·0	+0·9	−1·0	−1·2	−0·5	+1·0	56·5	59·0	57·1	51·6	− 0·8	− 0·7	− 0·2	+ 0·7
7	69·2	44·9	...	...	...	...	−0·9	+0·8	...	...	...	...	...	...	...	...	...	...	...	..
8	68·3	45·8	58·2	67·1	67·8	55·2	−0·8	+0·6	−0·7	0·0	−0·5	0·0	55·6	59·4	59·2	53·3	− 0·2	0·0	− 0·4	0·0
9	69·2	52·0	62·5	67·1	65·2	59·0	−1·4	+0·7	+0·2	+0·9	−0·5	0·0	59·6	60·8	57·4	57·0	+ 0·1	+ 0·7	− 0·3	0·0
10	66·0	56·2	61·3	65·2	64·5	59·2	−1·6	+0·4	−0·4	−0·5	−0·1	−0·4	59·6	61·0	60·8	58·9	− 0·1	− 0·5	− 0·4	− 0·3
11	63·9	56·2	61·2	62·0	62·0	58·8	−1·8	+0·8	−0·7	−0·5	+0·2	0·0	58·9	60·7	61·0	58·1	− 0·5	− 0·6	+ 0·2	0·0
12	58·8	49·2	49·3	53·0	57·6	52·2	−0·8	+0·1	−0·4	−0·4	−0·1	0·0	48·4	50·0	51·0	48·8	− 0·4	0·0	+ 0·1	+ 0·4
13	54·7	41·3	47·1	51·7	54·0	47·4	−0·8	+0·1	−0·6	−0·5	−0·7	0·0	42·0	44·8	46·1	45·0	− 0·2	− 0·2	− 0·6	0·0
14	59·5	43·4	...	...	...	...	−1·5	+0·6	...	...	...	...	...	..	...	...	...	...	...	...
15	60·6	52·7	57·2	60·2	60·1	57·1	−1·4	+0·3	−0·5	−0·4	−0·6	0·0	52·5	53·0	54·0	54·4	− 0·5	− 0·8	− 0·8	− 0·1
16	64·9	53·0	55·9	62·0	61·6	53·0	−1·3	+0·2	−0·3	0·0	−0·1	+0·1	54·1	54·9	53·0	50·6	− 0·6	0·0	− 0·1	− 0·1
17	59·2	46·9	54·0	57·1	57·2	51·5	−1·2	+0·7	−0·3	−1·5	0·0	+0·3	49·1	49·0	48·8	46·6	− 0·2	− 0·8	0·0	+ 0·2
18	58·7	42·6	51·4	58·0	58·3	42·7	−1·1	+0·2	−0·3	−0·8	−0·5	+0·1	47 8	50·0	50·0	42·0	− 0·2	+ 0·2	+ 0·4	+ 0·2
19	65·2	37·5	50·4	63·2	62·0	48·0	+0·1	+0·7	+0·2	+0·5	+0·3	+0·5	47·1	53·0	52·1	46·0	0·0	+ 0·3	+ 0·1	+ 0·3
20	63·5	37·2	53·0	63·0	61·1	51·3	−0·4	+0·1	−0·7	+0·3	+0·1	+0·1	50·9	52·1	51·8	48·2	− 0·7	− 0·5	+ 0·3	0·0
21	64·1	47·5	...	...	...	...	−1·3	+0·9	...	...	...	...	...	...	...	...	...	...	...	...
22	73·9	53·3	62·8	70·5	72·2	55·2	−1·2	+0·8	0·0	0·0	−0·8	0·0	59·0	61·9	62·0	54·7	− 0·1	0·0	− 0·7	0·0
23	68·6	53·2	59·8	68·0	63·1	60·1	−1·1	+0·4	−0·4	+0·1	−0·6	0·0	56·2	60·7	58·2	58·8	− 0·7	+ 0·1	− 0·5	0·0
24	62·3	48·3	56·8	60·8	62·0	48·3	−1·0	+0·5	+0·8	−0·9	−0·6	0 0	52·3	51·9	52·9	47·2	+ 0·7	− 0·3	− 0·2	0·0
25	64·8	40·5	52·5	62·2	63·7	48·3	−0·1	+0·9	−0·8	−1·1	0·0	+0 6	49·5	53·6	53·7	48·0	− 0·4	− 0·3	0·0	+ 0·3
26	66·8	40·5	49·3	64·8	66·8	49·3	−0·1	+0·4	0·0	0·0	+0·5	0·0	49·3	54·8	55·3	48·9	0·0	0·0	+ 0·6	0·0
27	66·7	39·0	49·0	64·8	65·4	57·6	−0·7	+0·7	−0·7	−0·2	−0·4	0·0	49·0	57·3	58·5	55·0	− 0·6	− 0·2	− 0·2	0·0
28	58·6	51·4	...	...	...	...	−0·5	+0·2	...	...	...	...	...	...	...	...	...	...	...	...
29	55·3	46·2	49·9	51·1	53·9	48·0	−1·1	0·0	−0·1	−0·5	−0·2	0·0	47·0	48·6	49·3	46·1	− 0·1	− 0·2	+ 0·1	0·0
30	56·1	47·9	52·8	54·6	55·7	51·1	−0·9	+0·5	−0·9	−0·5	−0·1	−0·1	47·6	50·7	50·0	48·2	− 1·1	− 0·1	+ 0·1	0·0
Means	64·6	48·7	56·7	62·6	63·0	53·9	−1·0	+0·5	−0·4	−0·4	−0·3	+0·2	53·6	55·8	55·7	52·1	− 0·3	− 0·2	− 0·2	+ 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	57·7	50·2	53·3	57·7	55·9	51·3	−0·4	0·0	−0·4	−0·3	+0·1	−0·2	49·9	51·0	49·6	49·0	− 0·1	+ 0·2	+ 0·1	+ 0·2
2	52·6	44·8	49·6	50·7	50·8	44·8	−0·7	+0·4	−0·1	0·0	−0·1	0·0	48·3	47·6	46·6	41·1	− 0·1	0·0	− 0·1	0·0
3	46·7	42·2	43·0	44·0	45·9	42·6	−0·4	+1·2	−0·5	−0·6	0·0	0·0	40·7	40·9	41·0	41·2	− 0·3	+ 0·1	0·0	− 0·1
4	46·2	42·1	45·9	46·1	45·9	46·0	−0·3	−0·1	−0·2	−0·1	0·0	0·0	42·9	43·1	42·8	44·2	− 0·1	0·0	− 0·1	0·0
5	52·0	44·9	...	...	...	...	−0·5	+0·4	...	...	...	...	...	...	...	...	...	...	...	...
6	49·8	46·2	47·7	48·0	48·6	47·1	−0·1	+0·2	0·0	0·0	−0·1	+0·1	47·1	47·6	48·2	47·0	0·0	0·0	− 0·1	+ 0·1
7	53·5	45·1	47·9	52·5	53·4	48·4	−0·9	0·0	−0·4	−0·3	−0·5	−0·1	47·3	49·3	50·3	47·6	− 0·4	− 0·2	− 0·2	− 0·1
8	57·5	42·8	46·9	55·0	57·0	46·7	−0·5	0·0	+0·2	−0·7	0·0	0·0	46·0	49·2	51·0	46·0	+ 0·1	− 0·6	0·0	0·0
9	55·0	44·9	53·9	52·0	53·0	52·1	0·0	+0·7	0·0	−0·4	0·0	−0·2	51·6	50·7	51·6	51·6	+ 0·1	− 0·2	0·0	− 0·2
10	65·4	52·1	60·0	63·8	61·9	54·2	−1·7	+0·5	−0·3	−0·7	−0·2	+0·5	56·4	57·6	56·2	53·0	− 0·1	− 0·6	− 0·5	+ 0·3
11	59·7	52·2	56·0	58·1	57·1	52·6	−2·2	+0·9	−0·4	0·0	−0·1	0·0	55·3	56·8	55·0	51·0	− 0·6	0·0	− 0·4	+ 0·2
12	56·2	44·3	...	...	...	...	−0·5	+0·6	...	...	...	...	...	...	...	...	...	...	...	...
13	61·0	44·2	57·5	60·1	59·3	57·2	−0·7	+1·0	−0·2	−0·5	−0·5	−0·2	55·1	56·1	56·7	54·5	− 0·2	− 0·6	− 0·6	− 0·2
14	59·8	49·0	54·1	52·8	59·1	49·0	−1·4	+0·7	−0·3	+0·2	−0·4	0·0	51·6	50·0	52·1	47·0	− 0·2	− 0·2	− 0·3	0·0
15	58·3	48·5	57·3	58·0	56·0	51·7	−0·8	+0·3	−0·3	0·0	−0·6	+0·3	52·6	54·0	55·0	49·8	− 0·5	0·0	− 0·6	+ 0·1
16	55·8	45·2	52·9	54·4	55·2	45·2	−0·9	0·0	+0·1	−0·3	−0·7	−0·1	49·0	48·8	49·0	42·2	− 0·3	− 0·2	− 0·3	− 0·1
17	53·5	41·2	47·0	51·0	52·0	45·7	−1·3	+0·8	−0·4	−0·2	−0·3	+0·5	43·0	45·0	46·5	43·2	− 0·4	− 0·4	− 0·2	+ 0·2
18	51·0	43·2	49·7	50·0	50·5	46·3	−0·6	+0·4	0·0	−0·2	−0·2	0·0	49·3	49·1	48·6	44·8	0·0	− 0·2	− 0·2	0·0
19	55·7	33·1	...	...	...	...	−0·5	+0·5	...	...	...	...	...	...	...	...	...	...	...	...
20	60·2	47·2	51·8	56·7	59·0	53·7	−1·0	+0·9	0·0	−0·8	−0·1	0·0	50·9	56·0	54·2	51·8	0·0	− 0·7	− 0·6	0·0
21	56·5	41·9	46·9	54·7	56·0	46·0	−0·5	+0·6	0·0	−0·3	−0·2	+0·8	44·8	49·3	49·0	43·0	0·0	− 0·4	+ 0·3	+ 0·1
22	54·1	44·2	49·7	53·7	53·9	49·8	−0·4	+0·6	−0·2	0·0	0·0	+0·1	49·0	48·1	48·9	46·5	+ 0·6	0·0	0·0	0·0
23	54·0	39·2	45·9	52·2	54·0	50·0	−0·7	+0·4	−0·5	−0·4	−0·3	0·0	44·7	49·4	52·1	49·8	− 0·3	− 0·3	− 0·1	0·0
24	57·4	47·6	51·1	56·0	55·9	51·5	−1·1	+0·3	+0·5	−0·1	−0·2	+0·4	49·2	49·0	49·0	48·1	+ 0·3	+ 0·3	− 0·3	0·0
25	58·0	50·4	...	...	...	...	−0·5	+0·4	...	...	...	...	...	...	...	...	...	...	...	...
26	54·5	44·3	...	...	...	...	−0·1	+1·0	...	...	...	...	...	...	...	...	...	...	...	...
27	53·8	49·2	50·0	52·4	52·0	50·3	+0·4	+0·2	−0·4	−0·4	0·0	−0·2	47·5	49·3	49·4	48·7	− 0·2	− 0·1	0·0	0·0
28	55·3	37·7	47·0	55·0	53·2	51·1	−0·7	+0·5	−0·3	−0·2	−0·1	+0·1	47·0	51·2	51·0	50·0	− 0·3	− 0·1	+ 0·2	0·0
29	55·7	39·3	47·1	55·4	53·4	41·2	+0·3	+1·1	+0·4	+0·8	+0·1	+0·4	45·9	50·7	49·5	41·0	+ 0·3	+ 0·1	+ 0·1	+ 0·6
30	55·8	40·4	50·3	54·1	54·6	47·1	−0·4	+1·0	−0·3	−0·1	−0·2	+0·2	49·9	51·2	50·1	43·6	+ 0·1	− 0·1	+ 0·1	+ 0·1
31	51·4	36·9	41·1	48·3	51·1	48·8	−0·5	+0·7	+0·3	−0·1	+0·3	0·0	40·5	45·6	45·8	46·0	+ 0·2	+ 0·2	+ 0·3	+ 0·2
Means	55·3	44·3	50·1	53·6	54·0	48·9	−0·6	+0·5	−0·1	−0·2	−0·2	+0·1	48·3	49·9	50·0	47·0	− 0·1	− 0·2	− 0·1	+ 0·1

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

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

DECEMBER.

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

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

1902.

Days of the Month	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	53·10	52·20	51·30	50·35	49·68	49·37	49·47	50·02	50·96	51·87	52·51	52·64
2	53·06	52·15	51·27	50·30	49·66	49·38	49·48	50·06	51·06	51·91	52·52	52·66
3	53·04	52·21	51·25	50·26	49·64	49·36	49·47	50·06	51·05	51·91	52·55	52·62
4	53·04	52·19	51·25	50·28	49·61	49·36	49·50	50·12	51·07	51·94	52·56	52·61
5	53·03	52·12	51·22	50·24	49·61	49·38	49·50	50·15	51·06	51·97	52·57	52·62
6	52·95	52·04	51·17	50·22	49·56	49·37	49·51	50·18	51·10	52·00	52·57	52·57
7	52·90	52·00	51·15	50·17	49·56	49·38	49·52	50·20	51·15	52·00	52·57	52·58
8	52·86	51·96	51·14	50·15	49·53	49·37	49·55	50·25	51·25	52·06	52·61	52·57
9	52·85	51·93	51·12	50·13	49·53	49·37	49·57	50·25	51·28	52·07	52·61	52·57
10	52·85	51·88	51·07	50·10	49·52	49·36	49·55	50·28	51·31	52·13	52·61	52·57
11	52·82	51·85	51·05	50·09	49·52	49·37	49·56	50·32	51·33	52·15	52·63	52·57
12	52·80	51·82	51·02	50·07	49·48	49·35	49·60	50·35	51·33	52·17	52·63	52·61
13	52·76	51·80	50·95	50·04	49·48	49·38	49·61	50·40	51·37	52·20	52·62	52·63
14	52·70	51·78	50·94	50·02	49·48	49·36	49·64	50·42	51·41	52·21	52·66	52·65
15	52·65	51·75	50·90	50·01	49·46	49·35	49·66	50·47	51·42	52·23	52·63	52·58
16	52·65	51·72	50·85	49·97	49·46	49·37	49·66	50·51	51·47	52·24	52·63	52·57
17	52·65	51·69	50·80	49·94	49·45	49·38	49·67	50·52	51·50	52·26	52·62	52·58
18	52·61	51·66	50·81	49·94	49·42	49·39	49·69	50·55	51·51	52·26	52·58	52·60
19	52·57	51·60	50·75	49·94	49·42	49·40	49·71	50·57	51·55	52·26	52·56	52·52
20	52·57	51·60	50·75	49·90	49·42	49·40	49·71	50·61	51·60	52·33	52·57	52·54
21	52·55	51·58	50·70	49·88	49·42	49·41	49·73	50·64	51·62	52·35	52·61	52·50
22	52·53	51·55	50·65	49·84	49·42	49·43	49·76	50·67	51·66	52·36	52·63	52·47
23	52·49	51·53	50·63	49·83	49·41	49·40	49·79	50·72	51·68	52·37	52·62	52·49
24	52·45	51·52	50·55	49·82	49·37	49·40	49·82	50·76	51·70	52·40	52·63	52·47
25	52·39	51·45	50·55	49·80	49·36	49·41	49·87	50·77	51·73	52·43	52·64	52·46
26	52·35	51·43	50·54	49·78	49·39	49·41	49·88	50·82	51·76	52·43	52·64	52·45
27	52·37	51·41	50·53	49·77	49·40	49·42	49·87	50·86	51·79	52·43	52·65	52·45
28	52·32	51·37	50·45	49·73	49·39	49·45	49·85	50·89	51·82	52·46	52·63	52·37
29	52·25		50·42	49·71	49·38	49·44	49·92	50·90	51·83	52·47	52·66	52·37
30	52·24		50·40	49·70	49·37	49·45	49·96	50·94	51·85	52·47	52·64	52·35
31	52·25		50·41		49·37		49·97	50·98		52·49		52·30
Means	52·67	51·78	50·86	50·00	49·48	49·39	49·68	50·49	51·44	52·22	52·61	52·53

The mean of the twelve monthly values is 51°·10.

(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.

1902.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	50·70	48·80	46·87	46·40	46·83	47·92	50·28	53·62	55·08	55·70	54·59	52·73
2	50·59	48·80	46·80	46·39	46·92	48·00	50·33	53·71	55·16	55·66	54·51	52·70
3	50·47	48·78	46·73	46·39	46·98	48·05	50·45	53·75	55·20	55·61	54·50	52·58
4	50·36	48·74	46·66	46·42	47·02	48·05	50·60	53·85	55·19	55·60	54·44	52·45
5	50·29	48·70	46·62	46·40	47·10	48·10	50·70	53·95	55·17	55·60	54·37	52·39
6	50·12	48·63	46·56	46·41	47·13	48·21	50·79	53·97	55·23	55·60	54·34	52·30
7	50·09	48·59	46·48	46·41	47·18	48·33	50·93	54·04	55·29	55·56	54·29	52·24
8	50·03	48·51	46·52	46·42	47·22	48·40	51·07	54·11	55·37	55·55	54·25	52·11
9	49·90	48·44	46·48	46·45	47·29	48·47	51·15	54·12	55·40	55·54	54·19	52·10
10	49·91	48·34	46·42	46·46	47·32	48·55	51·21	54·20	55·43	55·56	54·11	51·97

(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.*

1902.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
11	49·81	48·26	46·39	46·47	47·36	48·65	51·35	54·24	55·50	55·53	54·04	51·94
12	49·73	48·23	46·40	46·48	47·42	48·72	51·32	54·30	55·48	55·46	54·04	51·84
13	49·71	48·13	46·38	46·50	47·48	48·81	51·62	54·36	55·51	55·46	53·92	51·78
14	49·61	48·02	46·33	46·53	47·50	48·96	51·80	54·42	55·56	55·46	53·93	51·73
15	49·52	48·02	46·30	46·53	47·53	49·06	51·91	54·50	55·60	55·34	53·80	51·64
16	49·50	48·00	46·26	46·55	47·54	49·12	52·03	54·58	55·66	55·29	53·77	51·56
17	49·50	47·88	46·22	46·53	47·59	49·20	52·12	54·54	55·67	55·25	53·69	51·49
18	49·51	47·77	46·20	46·57	47·61	49·30	52·20	54·60	55·71	55·18	53·58	51·32
19	49·52	47·64	46·21	46·62	47·63	49·39	52·32	54·65	55·73	55·16	53·50	51·20
20	49·41	47·61	46·22	46·58	47·64	49·43	52·40	54·67	55·75	55·14	53·46	51·07
21	49·38	47·56	46·22	46·61	47·67	49·58	52·50	54·67	55·76	55·08	53·48	50·96
22	49·34	47·40	46·23	46·59	47·70	49·61	52·62	54·71	55·81	55·05	53·43	50·82
23	49·31	47·37	46·22	46·62	47·73	49·72	52·78	54·79	55·82	55·00	53·40	50·80
24	49·26	47·33	46·24	46 65	47·74	49·79	52·90	54·80	55·78	54·98	53·34	50·76
25	49·18	47·12	46·22	46·66	47·77	49·82	53·02	54·79	55·79	54·96	53·26	50·70
26	49·14	47·10	46·33	46·71	47·78	49·91	53·05	54·84	55·78	54·89	53·17	50·64
27	49·11	47·08	46·39	46·72	47·81	49·96	53·12	54·92	55·79	54·81	53·13	50·58
28	49·08	46·98	46·41	46·75	47·81	50·10	53·31	54·97	55·70	54·78	53·00	50·51
29	48·99		46·40	46·77	47·85	50·13	53·39	55·00	55·70	54·71	52·97	50·43
30	48·95		46·42	46 84	47·86	50 20	53·49	55·03	55·71	54·67	52·80	50·38
31	48·86		46·39		47·91		53·54	55·06		54·60		50·33
Means	49·64	47·99	46·40	46·55	47·48	49·05	51·95	54·44	55·54	55·25	53·78	51·49

The mean of the twelve monthly values is 50°·80.

(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.

1902.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	46·64	46·43	...	45·63	48·37	50·40	54·91	58·40	58·81	57·52	54·33	50·51
2	46·69	46·38	...	45·71	48·41	50·39	55·16	58·43	58·88	57·40	54·22	50·51
3	46·81	46·19	43·78	45·80	48·48	50·62	55·50	58·40	58·92	57·26	54·17	50·49
4	46·92	46·03	44·00	45·91	48·53	50·70	55·80	58·45	58·93	57·18	54·05	50·43
5	47·09	45·82	44·11	46·00	48·58	51·19	55·99	58·50	58·92	57·09	53·96	50·41
6	47·13	45·69	44·27	46·07	48·61	51·22	56·13	58·47	59·00	56·91	53·82	50·28
7	47·32	45·54	44·30	46·12	48·62	51·69	56·32	58·49	59·08	56·72	53·77	50·13
8	47·38	45·37	44·40	46·17	48·59	51·81	56·50	58·52	59·15	56·61	53·69	49·78
9	47·38	45·31	44·37	46·20	48·57	52·04	56·69	58·50	59·15	56·45	53·61	49·63
10	47·42	45·18	44·42	46·19	48·51	52·21	56·83	58·52	59·13	56·36	53·57	49·29
11	47·43	45·00	44·43	46·18	48·49	52 30	57·09	58·55	59·19	56·20	53·47	49·15
12	47·43	44·93	44·59	46·18	48·42	52·32	57·33	58·53	59·22	56·07	53·46	48·89
13	47·49	44·82	44·72	46·16	48·42	52·41	57·50	58·55	59·20	56·03	53·31	48·63
14	47·48	44·64	44·81	46·18	48·42	52·70	57·65	58·50	59·18	56·00	53·29	48·52
15	47·46	44·56	44·88	46·19	48·40	52·76	57·72	58·46	59·12	55·90	53·11	48·37

(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.*

1902.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
16	47·43	44·39	44·90	46·22	48·40	52·68	57·80	58·46	59·05	55·82	53·08	48·25
17	47·30	44·26	44·96	46·36	48·38	52·64	57·87	58·42	58·89	55·79	52·91	48·27
18	47·20	44·10	45·16	46·36	48·40	52·64	57·98	58·35	58·76	55·71	52·73	48·09
19	47·11	43·88	45·21	46·50	48·38	52·68	58·12	58·43	58·69	55·60	52·61	48·09
20	47·02	43·86	45·37	46·57	48·42	52 76	58·20	58·43	58 59	55·58	52·57	48·11
21	46·90	43·80	45·36	46·71	48·50	52·84	58·30	58·49	58·41	55·41	52·30	48·18
22	46·82	...	45·41	46·83	48·54	52·87	58·40	58·59	58·31	55·27	52·07	48·24
23	46·91	...	45·47	47·02	48·60	53·07	58·45	58·61	58·16	55·12	51·80	48·43
24	46·82	...	45·50	47·24	48·66	53·23	58·43	58·64	57·99	55·03	51·52	48·48
25	46·91	..	45·48	47·43	48·74	53·37	58·41	58·62	57·92	54·94	51·19	48·53
26	46·80	...	45·56	47·62	48·83	53·59	58·40	58·69	57·89	54·79	50·93	48·60
27	46·99	...	45·52	47·79	49·03	53·82	58·37	58·77	57·86	54·66	50·87	48·59
28	46·91	...	45·50	47·93	49·20	54·16	58·34	58·80	57·76	54·59	50·69	48·55
29	46·72		45·50	48·10	49·42	54·40	58·33	58·82	57·66	54·53	50·75	48·55
30	46·71		45·58	48·26	49·64	54·58	58·37	58·80	57·60	54·47	50·52	48·52
31	46·53		45·54		50·02		58·36	58·80		54·40		48·41
Means	47·07	...	...	46·59	48·66	52·37	57·40	58·55	58·65	55·85	52·75	49·00

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 on this account from February 22 to March 2 inclusive.

(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.

1902.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	43·37	41·73	40·95	44·00	48·00	51·73	59·07	60·00	60·09	56·28	51·81	47·14
2	43·88	41·42	41·39	44·30	48·03	52·45	59·31	60·00	60·19	56·10	51·59	47·41
3	44·23	41·15	41·52	44·58	48·05	53·00	59·32	59·82	60·31	55·82	51·66	47·40
4	44·40	40·93	41·81	44·59	48·09	52·98	59·16	59·90	60·49	55·36	51·51	47·10
5	44·51	40·56	41·90	44·52	47·78	53·36	59·21	59·88	60·41	54·85	51·37	45·82
6	44·78	40·62	41·82	44·51	47·53	53·60	59·64	59·84	60·46	54·49	51·12	45·51
7	44·63	40·52	41·52	44·49	47·23	54·12	60·19	60·00	60·39	54·26	51·30	44·83
8	44·57	40·46	41·56	44·34	47·00	53·93	60·65	60·10	60·28	54·11	51·51	44·16
9	44·44	40·42	41·72	44·20	46·83	53·78	60·99	60·02	60·10	54·01	51·49	43·83
10	44·48	40·22	42·09	44·04	46·71	53·55	61·13	59·90	60·00	54·00	51·36	43·39
11	44·78	39·88	42·38	44·01	46·68	53·34	61·04	59·67	60·09	54·10	50·93	43·32
12	44·96	39·78	42·32	43·92	46·68	53·20	60·73	59·35	60·00	54·21	50·87	43·14
13	45·10	39·41	42·72	43·87	46·79	53·29	60·44	59·14	59·80	54·30	50·82	43·18
14	44·70	39·07	43·09	44·14	46·69	53·28	60·61	58·97	59·23	54·40	50·70	43·20
15	44·20	38·95	43·11	44·13	46·57	53·11	60·85	59·05	58·75	54·42	50·32	43·75
16	43·51	38·89	43·30	44·57	46·53	52·89	61·20	59·31	58·63	54·34	50·30	44·21
17	43·20	38·51	43·27	44·98	46·76	52·88	61·45	59·36	58·52	54·19	49·90	44·56
18	43·21	38·28	43·42	45·31	46·94	52·93	61·52	59·65	58·20	53·73	49·42	45·09
19	43·22	37·98	43·57	45·69	47·21	53·20	61·56	59·91	57·80	53·37	48·67	45·47
20	42·92	37·95	43·36	45·78	47·29	53·49	61·22	59·93	57·31	53·03	48·10	45·43

(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.*

1902.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
21	43·00	37·94	43·78	46·42	47·30	53·91	60·84	59·92	56·97	52·93	47·40	45·48
22	43·40	37·98	43·59	46·89	47·43	54·41	60·38	59·90	56·98	52·78	46·82	45·67
23	43·82	38·40	43·50	47·31	47·68	54·89	60·01	59·84	57·11	52·52	46·31	46·03
24	44·13	38·81	43·09	47·61	48·09	55·41	59·77	59·91	57·31	52·40	46·17	46·12
25	44·24	39·38	42·88	47·85	48·63	56·02	59·72	60·00	57·46	52·40	46·07	45·94
26	43·81	39·75	42·95	48·11	49·27	56·68	59·93	60·02	57·29	52·46	46·47	45·70
27	43·42	40·10	42·75	48·28	49·88	57·25	59·91	59·81	56·98	52·43	46·92	45·79
28	43·09	40·63	42·87	48·29	50·42	57·71	60·18	59·90	56·67	52·43	47·08	45·87
29	42·90		43·47	48·16	50·89	58·20	60·05	59·92	56·61	52·40	47·32	45·92
30	42·68		43·59	48·00	51·28	58·79	60·01	59·91	56·47	52·27	47·04	45·64
31	42·20		43·79		51·61		60·02	60·00		52·11		45·00
Means	43·86	39·63	42·68	45·56	47·93	54·25	60·33	59·77	58·70	53·76	49·41	45·20

The mean of the twelve monthly values is 50°·09.

(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.

1902.

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

(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.*

1902.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
26	38·0	43·0	40·8	50·0	54·9	66·0	64·0	65·8	55·2	51·3	47·0	46·6
27	40·5	46·8	46·0	53·9	57·2	69·9	62·0	59·0	54·0	51·1	45·1	47·0
28	41·2	44·1	47·0	48·8	56·1	66·4	61·0	61·0	56·1	50·0	46·3	45·9
29	36·1		45·9	48·2	54·2	67·3	61·2	68·0	54·0	49·8	46·7	43·1
30	35·5		40·0	49·5	53·2	69·5	61·5	62·2	54·1	50·1	47·0	40·1
31	37·0		50·2		63·9		60·5	60·0		43·1		40·8
Means	42·1	36·4	44·6	49·3	49·4	59·0	62·6	61·2	57·7	51·4	46·6	43·2

The mean of the twelve monthly values is 50°·29.

(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.

1902.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	47·8	36·3	48·2	51·2	54·8	68·4	66·1	64·2	68·6	56·2	51·8	45·9
2	48·8	32·2	50·8	50·6	53·3	63·3	58·1	65·8	67·2	51·2	51·2	47·0
3	47·6	33·8	46·0	49·2	55·1	69·1	65·6	62·0	69·2	44·0	52·0	37·6
4	52·3	34·9	42·0	50·3	45·6	56·0	73·3	63·8	68·9	46·6	49·3	32·3
5	44·1	35·1	39·2	48·7	47·9	61·9	74·2	67·0	63·7	50·8	50·0	30·4
6	46·7	37·0	38·6	46·5	46·2	54·0	76·2	65·3	64·9	49·6	54·8	30·2
7	44·8	37·0	43·2	43·8	44·3	59·5	79·2	67·0	65·2	52·0	53·2	31·0
8	43·4	36·3	47·4	42·2	45·1	55·1	76·7	67·0	67·1	52·6	51·4	34·0
9	47·3	33·1	52·0	45·7	46·8	52·8	71·5	60·1	65·8	53·0	50·3	35·8
10	51·8	31·4	45·6	45·2	49·2	54·8	61·8	61·5	65·4	61·8	50·0	37·7
11	43·9	34·1	45·8	46·8	49·2	59·5	62·1	59·0	63·8	60·0	48·2	34·1
12	47·0	33·2	48·1	49·9	45·2	55·0	68·5	58·2	53·2	53·8	52·4	32·8
13	42·0	32·8	52·0	52·1	47·0	54·3	71·1	65·4	54·0	59·3	49·8	48·2
14	34·3	30·7	53·2	53·0	49·2	50·3	79·0	65·5	59·0	56·2	52·4	51·5
15	32·0	34·6	47·8	53·1	45·2	53·0	78·0	67·1	60·5	57·9	45·9	46·2
16	41·1	34·3	49·0	51·5	54·1	52·9	75·1	74·0	62·1	53·3	42·4	50·0
17	42·1	34·3	54·0	52·2	57·0	56·9	71·6	65·2	57·0	50·2	42·0	55·1
18	40·5	34·1	48·1	58·0	52·7	61·3	65·0	62·6	57·0	51·3	38·6	48·0
19	37·0	34·0	54·4	63·8	49·8	68·4	64·0	68·0	59·1	52·1	36·0	46·2
20	46·0	33·8	49·4	58·8	45·0	57·3	54·3	61·9	61·2	55·8	35·4	49·4
21	49·0	39·9	47·7	57·7	48·0	67·3	56·1	64·0	60·7	56·0	35·6	50·4
22	49·2	43·9	44·8	55·0	55·0	68·3	56·1	70·1	66·2	51·2	36·0	48·2
23	46·6	48·8	44·9	59·0	58·2	72·2	61·2	65·0	66·1	50·7	45·1	43·5
24	45·0	44·2	45·6	61·9	64·9	75·9	66·1	64·2	59·1	53·5	47·5	39·8
25	35·0	44·7	44·9	64·0	64·2	70·2	65·9	65·0	61·1	55·8	50·9	46·8
26	35·3	45·5	45·0	52·3	62·3	71·5	73·0	67·3	59·8	53·0	48·7	46·7
27	45·0	48·2	54·0	54·8	68·3	75·7	63·1	59·6	61·1	52·3	45·8	48·3
28	43·8	49·6	52·0	51·8	67·2	78·9	67·5	68·2	57·2	52·0	47·2	46·0
29	32·2		49·8	49·1	63·9	76·2	66·1	73·3	53·3	51·7	48·0	39·1
30	33·1		43·2	55·5	58·1	78·1	65·3	66·2	55·7	52·7	46·4	38·7
31	36·7		52·9		65·1		64·8	59·6		46·0		39·7
Means	42·9	37·4	47·7	52·5	53·5	63·3	67·6	64·9	61·8	53·0	46·9	42·3

The mean of the twelve monthly values is 52°·82.

ABSTRACT of the CHANGES of the DIRECTION of the WIND, as derived from the Records of OSLER'S ANEMOMETER in the Year 1902.

(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. 2	1. 2½	S.S.W.	S.W.	22½	
1. 6	1. 7	S.W.	S.S.W.		22½
1. 11½	1. 12	S.S.W.	S.		22½
2. 1	2. 2	S.	S.W.	45	
2. 15	2. 16	S.W.	W.S.W.	22½	
2. 22	3. 0	W.S.W.	S.W.		22½
3. 8	3. 11½	S.W.	S.		45
3. 14	3. 16½	S.	S.S.W.	22½	
4. 17	4. 17¼	S.S.W.	W.	67½	
4. 18	4. 18¼	W.	S.W.		45
5. 10½	5. 13	S.W.	W.N.W.	67½	
5. 19	5. 21	W.N.W.	S.W.		67½
6. 12½	6. 13	S.W.	W.	45	
6. 15	6. 15½	W.	W.S.W.		22½
6. 18½	6. 19	W.S.W.	S.W.		22½
8. 14	8. 14½	S.W.	S.S.W.		22½
8. 18	8. 18½	S.S.W.	S.		22½
9. 1	9. 2	S.	S.S.W.	22½	
11. 3	11. 3½	S.S.W.	S.W.	22½	
11. 8½	11. 9	S.W.	N.N.E.	157½	
11. 14¾	11. 15	N.N.E.	E.N.E.	45	
11. 22	12. 2	E.N.E.	S.S.E.	90	
12. 7½	12. 10½	S.S.E.	S.S.W.	45	
12. 23	13. 1	S.S.W.	N.N.E.	180	
13. 11½	13. 12	N.N.E.	N.		22½
14. 4	14. 5	N.	N.N.W.		22½
14. 9½	14. 10	N.N.W.	N.	22½	
14. 13	14. 13½	N.	N.N.W.		22½
15. 3½	15. 5¼	N.N.W.	S.S.W.		135
15. 11½	15. 12	S.S.W.	S.W.	22½	
16. 21	16. 21½	S.W.	S.S.W.		22½
17. 17¼	17. 18½	S.S.W.	E.	247½	
17. 23¾	17. 23¾	E.	N.N.W.	247½	
18. 3	18. 3½	N.N.W.	N.	22½	
18. 7¼	18. 7½	N.	N.N.W.		22½
18. 19	18. 20½	N.N.W.	S.		157½
18. 23½	19. 0	S.	S.W.	45	
19. 6½	19. 7	S.W.	S.S.W.		22½
20. 6	20. 6½	S.S.W.	S.W.	22½	
23. 4	23. 4½	S.W.	S.S.W.		22½
23. 13½	23. 13¾	S.S.W.	S.		22½
23. 17	23. 17½	S.	S.S.E.		22½
24. 12	24. 13½	S.S.E.	S.S.W.	45	
24. 22½	24. 23	S.S.W.	S.		22½
25. 2	25. 2½	S.	S.W.	45	
25. 9½	25. 10	S.W.	W.S.W.	22½	
25. 16	25. 16½	W.S.W.	S.W.		22½
25. 22½	25. 23	S.W.	W.S.W.	22½	
26. 1¾	26. 2	W.S.W.	W.N.W.	45	
26. 5	26. 8	W.N.W.	W.S.W.		45
26. 16½	26. 18½	W.S.W.	S.S.W.		45
26. 22	26. 22½	S.S.W.	S.		22½
27. 2	27. 4	S.	S.E.		45
27. 7	27. 9	S.E.	W.S.W.	112½	
27. 17	27. 18	W.S.W.	S.W.		22½
27. 20	27. 20½	S.W.	S.S.W.		22½
28. 5	28. 6	S.S.W.	S.W.	22½	
28. 14½	28. 16	S.W.	N.W.	90	
29. 9½	29. 10	N.W.	N.N.W.	22½	
29. 15	29. 18½	N.N.W.	S.W.		112½
29. 20½	30. 0½	S.W.	N.W.	90	
30. 4	30. 6	N.W.	N.N.W.	22½	
30. 20	30. 21	N.N.W.	N.	22½	
31. 7½	31. 10	N.	N.E.	45	
			Sums	2092½	1170
February.					
1. 5	1. 6	N.E.	N.N.E.		22½
2. 4	2. 4½	N.N.E.	N.E.	22½	
3. 0½	3. 2	N.E.	N.		45
4. 12	4. 13	N.	N.N.E.	22½	
4. 20	4. 21	N.N.E.	N.		22½
5. 6	5. 10	N.	E.	90	
5. 17	5. 18	E.	E.N.E.		22½
5. 21¾	5. 23	E.N.E.	N.E.		22½
6. 4¾	6. 5	N.E.	N.		45
6. 6½	6. 6¾	N.	N.E.	45	
6. 13	6. 13½	N.E.	E.N.E.	22½	
6. 17	6. 17½	E.N.E.	N.E.		22½
6. 19½	6. 20	N.E.	N.N.E.		22½
7. 2	7. 2¼	N.N.E.	N.		22½
7. 11¾	7. 12	N.	N.E.	45	
7. 14½	7. 14¾	N.E.	S.E.	90	
7. 23	8. 0½	S.E.	S.	45	
8. 3¾	8. 4	S.	E.S.E.		67½
8. 9½	8. 10	E.S.E.	E.		22½
8. 13¼	8. 13½	E.	W.S.W.	157½	
8. 17	8. 17½	W.S.W.	S.W.		22½
9. 1	9. 4	S.W.	N.W.	90	
9. 7½	9. 8½	N.W.	W.		45
9. 16½	9. 18½	W.	S.W.		45
10. 8	10. 9½	S.W.	N.	135	
10. 19	10. 23	N.	W.S.W.		112½
11. 16	11. 17	W.S.W.	S.W.		22½
12. 6	12. 7	S.W.	N.	135	
12. 8½	12. 9½	N.	S.E.	135	
12. 11	12. 11½	S.E.	N.N.E.		112½
12. 22¼	12. 22½	N.N.E.	S.	157½	
13. 0	13. 1	S.	N.N.W.	157½	
13. 10½	13. 11½	N.N.W.	N.N.E.	45	
13. 16	13. 17½	N.N.E.	N.		22½
13. 22	13. 23	N.	N.N.W.		22½
14. 20¾	14. 21	N.N.W.	W.S.W.		90
15. 4½	15. 8	W.S.W.	N.	112½	
15. 10	15. 12½	N.	E.S.E.	112½	
15. 17	15. 17½	E.S.E.	E.		22½
16. 7½	16. 7¾	E.	N.N.W.		112½
16. 9½	16. 11¼	N.N.W.	E.S.E.	135	
16. 12½	16. 13	E.S.E.	E.		22½
16. 22	17. 0¼	E.	N.N.W.	247½	
17. 9	17. 9½	N.N.W.	N.N.E.	45	
17. 11½	17. 12	N.N.E.	N.E.	22½	
17. 19¼	17. 19½	N.E.	N.N.E.		22½
18. 9	18. 10	N.N.E.	N.E.	22½	
18. 23	19. 3	N.E.	E.S.E.	67½	
19. 8½	19. 9	E.S.E.	S.E.	22½	
19. 12¼	19. 12½	S.E.	E.S.E.		22½
19. 16¾	19. 18½	E.S.E.	E.N.E.		45
19. 20½	19. 22½	E.N.E.	N.N.E.		45
20. 0½	20. 1	N.N.E.	N.E.	22½	
20. 9	20. 10	N.E.	E.N.E.	22½	
20. 18	20. 18½	E.N.E.	E.	22½	
21. 0	21. 1½	E.	S.E.	45	
21. 7¾	21. 9	S.E.	E.		45
21. 12¼	21. 14½	E.	S.S.E.	67½	
22. 17	22. 17½	S.S.E.	S.E.		22½
22. 21	22. 22	S.E.	S.S.E.	22½	
23. 8	23. 9	S.S.E.	S.	22½	
23. 16	23. 16½	S.	S.S.E.		22½
23. 18	23. 20	S.S.E.	S.E.		22½
24. 15	24. 16	S.E.	E.S.E.		22½
25. 2	25. 3	E.S.E.	E.		22½
25. 23	25. 23½	E.	N.E.		45
26. 3½	26. 6	N.E.	E.	45	
26. 17¾	26. 18	E.	E.S.E.	22½	
26. 21½	26. 22½	E.S.E.	S.E.	22½	
27. 0½	27. 2	S.E.	S.W.	90	
28. 18	28. 19	S.W.	S.S.W.		22½
			Sums	2587½	1350

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.
				°	°
March.					
d h	d h				
1. 0½	1. 0¾	S.S.W.	N.E.		157½
1. 12	1. 12¼	N.E.	S.E.	90	
1. 14	1. 14½	S.E.	N.	225	
1. 16	1. 17½	N.	S.E.	135	
2. 6¾	2. 9	S.E.	W.		225
2. 11	2. 11½	W.	S.		90
2. 12½	2. 13½	S.	W.S.W.	67½	
2. 18¾	2. 19	W.S.W.	S.W.		22½
3. 3½	3. 3¾	S.W.	W.S.W.	22½	
3. 5½	3. 6	W.S.W.	S.W.		22½
3. 14½	3. 15	S.W.	S.S.W.		22½
3. 20½	3. 21	S.S.W.	S.W.	22½	
4. 7	4. 8	S.W.	S.E.		90
4. 13½	4. 13¾	S.E.	E.		45
6. 3¾	6. 4	E.	S.	90	
6. 11½	6. 12	S.	N.N.W.	157½	
6. 15½	6. 21	N.N.W.	S.W.	247½	
7. 0½	7. 1	S.W.	W.S.W.	22½	
7. 8	7. 9	W.S.W.	S.W.		22½
7. 13¼	7. 13½	S.W.	N.N.W.	112½	
7. 22½	7. 23	N.N.W.	N.E.	67½	
8. 0½	8. 1¾	N.E.	N.		45
8. 3¾	8. 4	N.	S.S.E.	157½	
8. 5¼	8. 5½	S.S.E.	S.W.	67½	
8. 12	8. 13	S.W.	W.	45	
8. 17	8. 17½	W.	W.S.W.		22½
9. 6	9. 7½	W.S.W.	N.W.	67½	
9. 17	9. 17½	N.W.	N.N.W.	22½	
9. 22	9. 23	N.N.W.	E.	112½	
10. 1	10. 2	E.	N.		90
10. 4	10. 4½	N.	N.E.	45	
10. 8	10. 8½	N.E.	E.	45	
10. 15	10. 17	E.	S.	90	
10. 22	10. 23	S.	S.S.W.	22½	
11. 2	11. 2½	S.S.W.	S.W.	22½	
11. 16½	11. 18	S.W.	E.S.E.		112½
11. 20½	11. 22	E.S.E.	E.N.E.		45
12. 1	12. 2	E.N.E.	E.	22½	
12. 4	12. 6½	E.	S.E.	45	
12. 10½	12. 13½	S.E.	S.S.W.	67½	
12. 21	12. 22	S.S.W.	S.		22½
13. 13	13. 13½	S.	S.S.W.	22½	
14. 4½	14. 5	S.S.W.	S.		22½
14. 11¼	14. 12	S.	S.S.W.	22½	
14. 19	14. 19½	S.S.W.	S.		22½
15. 0	15. 2½	S.	W.N.W.	112½	
15. 3½	15. 3¾	W.N.W.	W.		22½
15. 12	15. 12½	W.	W.N.W.	22½	
15. 18½	15. 19	W.N.W.	W.		22½
16. 7½	16. 8½	W.	N.N.W.	67½	
16. 11½	16. 11¾	N.N.W.	N.W.		22½
16. 14¼	16. 14½	N.W.	N.N.W.	22½	
16. 18½	16. 20	N.N.W.	S.W.		112½
19. 0¾	19. 1	S.W.	S.S.W.		22½
19. 7	19. 8½	S.S.W.	S.W.	22½	
21. 3	21. 3½	S.W.	S.S.W.		22½
21. 12½	21. 13	S.S.W.	S.W.	22½	
21. 15½	21. 18	S.W.	S.S.W.		22½
22. 9½	22. 10½	S.S.W.	S.W.	22½	
March—*cont.*					
22. 12	22. 12¼	S.W.	W.S.W.	22½	
22. 16	22. 17	W.S.W.	S.W.		22½
22. 22	23. 0	S.W.	S.		45
23. 8½	23. 10½	S.	W.S.W.	67½	
23. 15½	23. 16	W.S.W.	N.W.	67½	
23. 17	23. 19	N.W.	S.W.		90
24. 8½	24. 9	S.W.	S.S.W.		22½
24. 12½	24. 13	S.S.W.	S.		22½
24. 19	24. 19¾	S.	S.W.	45	
24. 23	24. 23½	S.W.	W.S.W.	22½	
25. 3¼	25. 3½	W.S.W.	W.N.W.	45	
25. 8½	25. 9	W.N.W.	N.W.	22½	
25. 22	25. 23½	N.W.	S.W.		90
26. 7	26. 7½	S.W.	W.S.W	22½	
26. 9½	26. 10	W.S.W.	W.	22½	
26. 12½	26. 13	W.	W.S.W.		22½
26. 18	26. 18½	W.S.W.	S.W.		22½
26. 21¼	26. 23¾	S.W.	S.S.E.		67½
27. 2½	27. 3½	S.S.E.	S.W.	67½	
27. 8	27. 8½	S.W.	W.S.W.	22½	
27. 15½	27. 16	W.S.W.	N.W.	67½	
27. 17½	27. 18	N.W.	W.		45
27. 21¼	27. 22	W.	W.S.W.		22½
28. 10½	28. 11	W.S.W.	W.	22½	
28. 13	28. 13½	W.	W.N.W.	22½	
28. 15½	28. 15¾	W.N.W.	N.W.	22½	
28. 18¾	28. 19	N.W.	N.N.W.	22½	
28. 21¼	28. 21½	N.N.W.	S.W.		112½
29. 13	29. 14	S.W.	W.S.W.	22½	
29. 18	29. 20½	W.S.W.	N.N.W.	90	
30. 6	30. 6¼	N.N.W.	S.S.E.		180
30. 9½	30. 9¾	S.S.E.	S.W.	67½	
31. 0	31. 1	S.W.	S.S.W.		22½
31. 6	31. 9	S.S.W.	W.S.W.	45	
31. 21½	31. 22	W.S.W.	S.W.		22½
			Sums	3240	2137½
April.					
1. 3½	1. 4	S.W.	W.S.W.	22½	
1. 16½	1. 16¾	W.S.W.	N.N.W.	90	
1. 19	1. 19½	N.N.W.	N.W.		22½
2. 6½	2. 7	N.W.	N.N.W.	22½	
2. 14	2. 14¼	N.N.W.	N.	22½	
2. 21	2. 23½	N.	S.S.W.	202½	
3. 4½	3. 5	S.S.W.	S.		22½
3. 8½	3. 9	S.	S.S.W.	22½	
3. 11	3. 11¼	S.S.W.	S.W.	22½	
3. 21	3. 21½	S.W.	W.S.W.	22½	
4. 23½	5. 0	W.S.W.	S.W.		22½
5. 4	5. 5	S.W.	S.S.W.		22½
5. 10½	5. 11	S.S.W.	S.W.	22½	
5. 20¼	5. 21¼	S.W.	N.W.	90	
April—*cont.*					
6. 2	6. 3½	N.W.	N.N.W.	22½	
6 9	6. 9½	N.N.W.	N.	22½	
7. 7	7. 8¼	N.	N.E.	45	
7. 19¾	7. 23½	N.E.	S.E.	90	
8. 8	8. 9	S.E.	E.S.E.		22½
8. 21	8. 23½	E.S.E.	N.E.		67½
9. 21½	9. 22	N.E.	N.N.E.		22½
10. 11½	10. 12	N.N.E.	N.E.	22½	
10. 18½	10. 19	N.E.	N.N.E.		22½
11. 10	11. 12	N.N.E.	E.N.E.	45	
11. 13½	11. 14	E.N.E.	E.	22½	
11. 16½	11. 17¼	E.	N.E.		45
12. 5½	12. 6	N.E.	S.	135	
12. 10½	12. 11	S.	S.W.	45	
12. 13	12. 13¼	S.W.	S.		45
12. 15½	12. 15¾	S.	W.	90	
12. 18¼	12. 18½	W.	S.E.		135
12. 20½	12. 21¼	S.E.	N.W.	180	
12. 23¼	12. 23¾	N.W.	W.		45
13. 2	13. 2¼	W.	W.S.W.		22½
13. 8	13. 9½	W.S.W.	N.W.	67½	
13. 12	13. 12½	N.W.	W.S.W.		67½
13. 18¾	13. 19½	W.S.W.	N.N.E.		225
13. 20	13. 20¼	N.N.E.	S.E.	112½	
13. 20¾	13. 22¼	S.E.	W.S.W.	112½	
14. 0¾	14. 1	W.S.W.	E.	202½	
14. 17½	14. 18	E.	E.N.E.		22½
14. 20½	14. 21½	E.N.E.	N.E.		22½
15. 8	15. 8½	N.E.	E.	45	
15. 12	15. 14	E.	S.	90	
15. 20½	15. 23½	S.	W.S.W.	67½	
16. 3	16. 3¼	W.S.W.	W.	22½	
16. 5¼	16. 5½	W.	S.W.		45
16 6½	16. 6¾	S.W.	W.S.W.	22½	
16. 9¼	16. 9½	W.S.W.	N.W.	67½	
16. 18	16. 18½	N.W.	N.	45	
17. 1½	17. 1¾	N.	N.E.	45	
17. 4½	17. 4¾	N.E.	S.W.	180	
17. 10¾	17. 11	S.W.	S.S.E.		67½
17. 13½	17. 15½	S.S.E.	W.	472½	
17. 18	17. 18½	W.	W.S.W.		22½
17. 20¼	17. 20½	W.S.W.	N.N.W.	90	
17. 22¼	17. 22½	N.N.W.	N.W.		22½
17. 23¾	18. 0	N.W.	W.S.W.		67½
18. 5¼	18. 5½	W.S.W.	S.		67½
18. 8	18. 8¼	S.	E.S.E.		112½
18. 10¼	18. 10½	E.S.E.	E.	22½	
18. 17¾	18. 18¼	E.	S.S.W.	112½	
18. 20¼	18. 22	S.S.W.	S.E.		67½
19. 5	19. 7	S.E.	S.S.E.	22½	
19. 12¼	19. 12¾	S.S.E.	S.	22½	
19. 17½	19. 18½	S.	S.W.	45	
19. 21¼	19. 22	S.W.	S.		45
20. 6¼	20. 6½	S.	S.S.W.	22½	
21. 18	21. 20½	S.S.W.	S.E.		67½
22. 0	22. 0½	S.E.	S.S.E.	22½	
22. 11½	22. 14	S.S.E.	S.W.	67½	
22. 18½	22. 18¾	S.W.	S.S.W.		22½
23. 19½	23. 21	S.S.W.	S.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				
24. 2	24. 2½	S.S.E.	S.E.		22½
24. 4¾	24. 5¾	S.E.	S.W.		270
25. 8	25. 8¼	S.W.	N.E.		180
25. 8¾	25. 9¼	N.E.	S.E.		270
25. 13	25. 14	S.E.	E.		45
25. 19	25. 19½	E.	E.N.E.		22½
26. 13	26. 14½	E.N.E.	N.E.		22½
27. 11½	27. 12	N.E.	E.N.E.	22½	
28. 15	28. 15½	E.N.E.	N.E.		22½
29. 10	29. 12½	N.E.	N.		45
29. 22	29. 23	N.	W.S.W.		112½
30. 9½	30. 10	W.S.W.	W.	22½	
30. 16	30. 16¼	W.	N.W.	45	
30. 17¾	30. 18¼	N.W.	W.S.W.		67½
			Sums	3330	2587½
May.					
1. 4	1. 4½	W.S.W.	N.W.	67½	
1. 14½	1. 14¾	N.W.	N.	45	
1. 20½	1. 21	N.	S.W.	225	
2. 5½	2. 6	S.W.	S.S.W.		22½
2. 10	2. 10½	S.S.W.	S.W.	22½	
3. 16	3. 18	S.W.	W.S.W.	22½	
4. 7½	4. 8	W.S.W.	N.N.W.	90	
4. 19½	4. 19¾	N.N.W.	N.E.	67½	
4. 20½	4. 20¾	N.E.	N.		45
4. 22¾	5. 0½	N.	S.W.		135
5. 5¾	5. 6½	S.W.	W.S.W.	22½	
5. 10¼	5. 10½	W.S.W.	N.N.W.	90	
5. 15	5. 15½	N.N.W.	N.	22½	
5. 18	5. 19	N.	N.N.W.		22½
6. 0	6. 0¾	N.N.W.	S.W.		112½
6. 2¼	6. 2½	S.W.	W.S.W.	22½	
6. 6½	6. 8	W.S.W.	N.N.W.	90	
6. 16½	6. 17¼	N.N.W.	N.	22½	
6. 21¾	6. 22	N.	N.N.W.		22½
7. 15	7. 15¼	N.N.W.	N.E.	67½	
7. 16½	7. 17	N.E.	N.		45
7. 18¾	7. 19	N.	E.S.E.	112½	
7. 21	7. 21¼	E.S.E.	N.N.W.		135
8. 10½	8. 11½	N.N.W.	N.E.	67½	
8. 15½	8. 16	N.E.	N.		45
9. 1	9. 1½	N.	N.N.W.		22½
9. 5½	9. 6	N.N.W.	N.	22½	
9. 12¾	9. 13	N.	N.N.E.	22½	
9. 16	9. 16¼	N.N.E.	E.N.E.	45	
9. 18	9. 19	E.N.E.	E.S.E.	45	
9. 21	9. 21¼	E.S.E.	N.N.E.		90
10. 0	10. 2	N.N.E.	N.N.W.		45
10. 7	10. 7½	N.N.W.	N.	22½	
10. 17	10. 18	N.	E.N.E.	67½	
10. 20½	10. 21	E.N.E.	S.E.	67½	
11. 1¼	11. 1½	S.E.	N.W.	180	

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
May—*cont.*				°	°
d h	d h				
11. 4½	11. 5	N.W.	N.N.W.	22½	
11. 8½	11. 9	N.N.W.	N.	22½	
11. 11½	11. 12	N.	N.W.		45
11. 12¾	11. 13	N.W.	S.W.		90
12. 11	12. 12½	S.W.	N.E.	180	
12. 13½	12. 14	N.E.	N.		45
12. 22½	12. 23	N.	N.N.W.		22½
13. 12¼	13. 12½	N.N.W.	N.	22½	
13. 18	13. 18½	N.	N.N.E.	22½	
13. 22¼	13. 23	N.N.E.	S.W.		157½
14. 8½	14. 9	S.W.	W.	45	
14. 13¾	14. 14	W.	N.	90	
14. 15½	14. 16	N.	N.E.	45	
14. 18	14. 18½	N.E.	S.S.E.	112½	
14. 21	14. 21¼	S.S.E.	S.	22½	
15. 7½	15. 7¾	S.	S.S.W.	22½	
15. 13½	15. 14	S.S.W.	S.W.	22½	
16. 0½	16. 1½	S.W.	W.S.W.	22½	
16. 4½	16. 6	W.S.W.	N.W.	67½	
16. 8¾	16. 9	N.W.	W.S.W.		67½
16. 12	16. 12¼	W.S.W.	S.W.		22½
16. 23	17. 0	S.W.	W.S.W.	22½	
17. 14	17. 14½	W.S.W.	S.W.		22½
18. 3	18. 4	S.W.	N.W.	90	
18. 18½	18. 19¼	N.W.	W.S.W.		67½
18. 21½	18. 21¾	W.S.W.	N.N.W.	90	
19. 18	19. 18½	N.N.W.	N.W.		22½
20. 0	20. 1	N.W.	N.N.W.	22½	
21. 7	21. 8	N.N.W.	N.	22½	
21. 17	21. 17½	N.	N.E.	45	
21. 19½	22. 5	N.E.	W.S.W.	202½	
22. 15	22. 15½	W.S.W.	S.W.		22½
22. 21	22. 22	S.W.	W.S.W.	22½	
23. 1	23. 1¼	W.S.W.	W.	22½	
23. 3½	23. 4	W.	N.N.W.	67½	
23. 5¾	23. 6¼	N.N.W.	N.E.	67½	
23. 13	23. 13½	N.E.	N.N.W.		67½
23. 17	23. 17½	N.N.W.	S.W.		112½
23. 20	23. 20¾	S.W.	N.W.	90	
24. 0¼	24. 0¾	N.W.	W.S.W.		67½
24. 6½	24. 7½	W.S.W.	N.N.W.	90	
24. 9½	24. 10	N.N.W.	N.W.		22½
24. 19½	24. 21	N.W.	N.	45	
24. 23½	25. 1¼	N.	W.S.W.		112½
25. 6	25. 7	W.S.W.	N.N.W.	90	
25. 18	25. 19	N.N.W.	N.	22½	
26. 1	26. 2	N.	N.N.W.		22½
26. 10½	26. 12	N.N.W.	W.		67½
26. 17	26. 17½	W.	W.S.W.		22½
26. 22½	26. 23	W.S.W.	S.W.		22½
28. 19½	28. 20	S.W.	W.S.W.	22½	
29. 12	29. 12½	W.S.W.	E.N.E.	180	
29. 16½	29. 17½	E.N.E.	S.	112½	
29. 20¾	29. 20¾	S.	E.		90
30. 0	30. 0½	E.	E.N.E.		22½
30. 3	30. 6	E.N.E.	N.N.E.		45
30. 12¼	30. 12½	N.N.E.	S.E.		247½
30. 18	30. 19	S.E.	E.N.E.		67½
30. 22	30. 22½	E.N.E.	S.E.	67½	

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
May—*cont.*				°	°
d h	d h				
31. 2	31. 3	S.E.	E.S.E.		22½
31. 7½	31. 8	E.S.E.	S.E.	22½	
31. 16	31. 18	S.E.	E.N.E.		67½
			Sums	3667½	2407½
June.					
1. 9	1. 10	E.N.E.	E.	22½	
1. 14	1. 14¼	E.	S.E.	45	
1. 17¾	1. 18	S.E.	S.S.W.	67½	
1. 21½	1. 22	S.S.W.	S.		22½
2. 8	2. 9½	S.	S.S.E.		22½
2. 13	2. 13½	S.S.E.	E.		67½
3. 2	3. 2½	E.	E.N.E.		22½
3. 7½	3. 8	E.N.E.	E.	22½	
3. 10	3. 10¼	E.	E.S.E.	22½	
3. 13½	3. 13¾	E.S.E.	W.S.W.	135	
3. 20	3. 20½	W.S.W.	W.	22½	
4. 3	4. 3½	W.	W.S.W.		22½
4. 17	4. 17½	W.S.W.	S.W.		22½
5. 14½	5. 15	S.W.	W.S.W.	22½	
6. 0½	6. 1	W.S.W.	S.W.		22½
6. 16½	6. 17	S.W.	W.S.W.	22½	
7. 9½	7. 10½	W.S.W.	S.W.		22½
7. 14½	7. 17	S.W.	N.N.W.	112½	
8. 0	8. 0½	N.N.W.	N.W.		22½
8. 15½	8. 16½	N.W.	N.	45	
8. 21	8. 21½	N.	N.N.E.	22½	
9. 0½	9. 1	N.N.E.	N.		22½
9. 15	9. 15½	N.	N.N.E.	22½	
9. 23	9. 23½	N.N.E.	N.		22½
10. 16	10. 16¼	N.	N.E.	45	
10. 18	10. 18½	N.E.	S.S.E.	112½	
11. 2	11. 2½	S.S.E.	S.S.W.	45	
11. 20	11. 23	S.S.W.	S.E.		67½
12. 13½	12 14	S.E.	E.		45
13. 3¾	13. 4	E.	N.N.W.		112½
13. 6½	13. 8½	N.N.W.	W.S.W.		90
13. 14	13. 14½	W.S.W.	S.W.		22½
13. 19½	13. 20	S.W.	N.N.W.	112½	
13. 23	14. 1	N.N.W.	W.S.W.		90
14. 3½	14. 5	W.S.W.	W.N.W.	45	
14. 8½	14. 9	W.N.W.	W.		22½
14. 13	14. 14½	W.	S.S.W.		67½
14. 22	14. 23	S.S.W.	W.S.W.	45	
15. 10	15. 11	W.S.W.	S.W.		22½
16. 4½	16. 5	S.W.	N.E.	180	
16. 8	16. 9	N.E.	S.	135	
16. 13½	16. 13¾	S.	N.N.E.		157½
16. 16¾	16. 17	N.N.E.	S.E.	112½	
16. 19¼	16. 19½	S.E.	N.E.		90
16. 22½	16. 23	N.E.	N.N.E.		22½
17. 9	17. 9½	N.N.E.	N.		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.
				°	°
June—*cont.*					
d h	d h				
17. 13¾	17. 14	N.	N.E.	45	
18. 7¾	18. 8	N.E.	E.N.E.	22½	
18. 10¼	18. 10¾	E.N.E.	E.	22½	
18. 13	18. 13½	E.	E.S.E.	22½	
19. 9	19. 10	E.S.E.	S.E.	22½	
19. 12¼	19. 12½	S.E.	E.		45
20. 1½	20. 2½	E.	S.E.	45	
20. 7	20. 9	S.E.	S.W.	90	
20. 15½	20. 15¾	S.W.	S.		45
20. 19½	20. 20	S.	S.S.W.	22½	
21. 1	21. 2	S.S.W.	S.W.	22½	
23. 13½	23. 15¾	S.W.	W.N.W.	67½	
23. 17¼	23. 17½	W.N.W.	N.		292½
23. 19	23. 19½	N.	E.	90	
23. 21	23. 21½	E.	S.W.	135	
23. 23½	24. 0	S.W.	S.E.	270	
24. 11½	24. 12½	S.E.	E.S.E.		22½
24. 17½	24. 18½	E.S.E.	S.E.	22½	
25. 1¼	25. 2¼	S.E.	E.		45
25. 23	25. 23½	E.	E.N.E.		22½
26. 5½	26. 6	E.N.E.	E.	22½	
26. 15½	26. 16	E.	E.N.E.		22½
27. 11½	27. 12	E.N.E.	E.	22½	
27. 21	27. 22	E.	E.N.E.		22½
28. 7½	28. 8	E.N.E.	E.	22½	
29. 7¼	29. 7½	E.	E.S.E.	22½	
29. 9½	29. 10½	E.S.E.	S.S.W.	90	
29. 18	29. 18½	S.S.W.	S.W.	22½	
29. 21¼	29. 21½	S.W.	S.E.		90
30. 3½	30. 3¾	S.E.	N.E.		90
30. 6	30. 6¼	N.E.	S.W.	180	
30. 8	30. 8¼	S.W.	S.S.W.	337½	
30. 9½	30. 9¾	S.S.W.	S.S.E.		45
30. 14½	30. 15	S.S.E.	E.S.E.		45
30. 18	30. 18¼	E.S.E.	S.E.	22½	
30. 21½	30. 23½	S.E.	W.S.W.		247½
			Sums	3060	2160
July.					
1. 15¼	1. 16	W.S.W.	N.N.E.	135	
2. 14	2. 14½	N.N.E.	N.E.	22½	
2. 21	2. 21½	N.E.	E.N.E.	22½	
3. 0	3. 1	E.N.E.	S.S.W.	135	
3. 3¼	3. 3½	S.S.W.	S.W.	22½	
4. 11½	4. 12	S.W.	W.S.W.	22½	
4. 21½	4. 21¾	W.S.W.	W.	22½	
5. 8¾	5. 10	W.	N.	90	
5. 14¾	5. 15½	N.	E.N.E.	67½	
5. 18½	5. 18¾	E.N.E.	E.S.E.	45	
6. 8½	6. 9	E.S.E.	S.E.	22½	
6. 13½	6. 14	S.E.	S.	45	
6. 16½	6. 16¾	S.	S.E.		45
6. 20½	6. 23½	S.E.	S.W.	90	
July—*cont.*					
7. 9½	7. 10	S.W.	N.W.	90	
7. 17½	7. 17¾	N.W.	N.N.W.	22½	
7. 21½	7. 22	N.N.W.	N.N.E.	45	
8. 5	8. 6¼	N.N.E.	W.S.W.	225	
8. 16	8. 16½	W.S.W.	W.	22½	
8. 19	8. 20	W.	W.S.W.		22½
9. 13¾	9. 16½	W.S.W.	W.N.W.	45	
9. 19	9. 19½	W.N.W.	W.S.W.		45
10. 13½	10. 13¾	W.S.W.	W.	22½	
10. 15¼	10. 15½	W.	N.W.	45	
11. 5	11. 6	N.W.	N.	45	
11. 19	11. 21¾	N.	S.S.E.	157½	
11. 23¼	11. 23½	S.S.E.	W.N.W.	135	
12. 1½	12. 1¾	W.N.W.	W.S.W.		45
12. 13½	12. 14	W.S.W.	S.W.		22½
13. 1	13. 1½	S.W.	W.S.W.	22½	
13. 16	13. 16½	W.S.W.	S.W.		22½
14. 8½	14. 8¾	S.W.	S.S.E.		67½
14. 17¾	14. 18½	S.S.E.	E.		67½
14. 21	14. 22½	E.	S.S.E.	67½	
15. 8½	15. 9	S.S.E.	S.W.	67½	
15. 15	15. 16½	S.W.	N.W.	90	
15. 18	15. 21	N.W.	N.	45	
16. 8½	16. 9	N.	N.N.E.	22½	
16. 12¼	16. 12½	N.N.E.	E.S.E.	90	
16. 21	16. 21¼	E.S.E.	S.E.	22½	
17. 0¼	17. 0½	S.E.	S.W.	90	
17. 3	17. 3½	S.W.	W.S.W.	22½	
17. 6	17. 7½	W.S.W.	N.	112½	
17. 11½	17. 13	N.	W.		90
17. 15¾	17. 16	W.	N.W.	45	
17. 21½	17. 22	N.W.	N.	45	
18. 9	18. 10½	N.	N.W.		45
18. 13½	18. 14	N.W.	N.N.W.	22½	
19. 10¼	19. 10½	N.N.W.	N.W.		22½
19. 13¾	19. 14	N.W.	W.		45
19. 23	20. 1	W.	N.E.		225
20. 11½	20. 12	N.E.	N.N.E.		22½
20. 17¾	20. 18	N.N.E.	N.		22½
21. 0	21. 0½	N.	N.N.W.		22½
21. 20	21. 22	N.N.W.	S.		157½
22. 4	22. 6	S.	W.S.W.	67½	
22. 13½	22. 14	W.S.W.	S.W.		22½
23. 4½	23. 5	S.W.	W.	45	
23. 7	23. 7¾	W.	N.W.	45	
23. 9½	23. 10	N.W.	N.	45	
23. 13	23. 13½	N.	S.W.	225	
23. 17	23. 18½	S.W.	S.S.W.	337½	
24. 3	24. 3½	S.S.W.	S.W.	22½	
25. 11½	25. 12	S.W.	S.S.W.		22½
25. 19	25. 20½	S.S.W.	S.S.E.	45	
25. 23	26. 1	S.S.E.	E.S.E.	45	
26. 4½	26. 5	E.S.E.	S.	67½	
26. 7½	26. 8½	S.	S.W.	45	
27. 11	27. 11¼	S.W.	W.S.W.	22½	
28. 10½	28. 11	W.S.W.	S.W.		22½
29. 7	29. 8	S.W.	W.S.W.	22½	
29. 14½	29. 15	W.S.W.	W.	22½	
29. 17½	29. 18	W.	W.S.W.		22½
July—*cont.*					
30. 15	30. 15¼	W.S.W.	W.N.W.	45	
30. 19½	30. 20	W.N.W.	W.S.W.		45
31. 3½	31. 5½	W.S.W.	N.E.	157½	
31. 9½	31. 10	N.E.	N.		45
31. 18	31. 18½	N.	N.N.E.	22½	
31. 20½	31. 21¼	N.N.E.	E.N.E.	45	
			Sums	3600	1260
August.					
1. 6½	1. 6¾	E.N.E.	N.E.		22½
1. 16½	1. 17½	N.E.	E.S.E.	67½	
1. 20½	1. 21	E.S.E.	S.E.	22½	
2. 1½	2. 7	S.E.	W.S.W.	112½	
2. 16½	2. 17	W.S.W.	S.W.		22½
3. 5½	3. 6½	S.W.	W.S.W.	22½	
3. 20½	3. 21	W.S.W.	S.W.		22½
4. 10	4. 10½	S.W.	S.E.	270	
4. 11	4. 11¼	S.E.	W.S.W.		247½
4. 14	4. 14½	W.S.W.	S.W.		22½
4. 17	4. 17½	S.W.	W.S.W.	22½	
5. 8¼	5. 8½	W.S.W.	S.W.		22½
5. 11	5. 11¼	S.W.	N.		225
5. 13	5. 13¼	N.	S.E.	135	
6. 8	6. 10	S.E.	S.S.W.	67½	
7. 6	7. 7	S.S.W.	S.W.	22½	
8. 8	8. 9	S.W.	W.S.W.	22½	
8. 11½	8. 14½	W.S.W.	N.N.E.	135	
8. 19½	8. 20	N.N.E.	N.		22½
9. 2¼	9. 4	N.	W.S.W.		112½
10. 15¼	10. 16¼	W.S.W.	N.N.W.	90	
10. 22	11. 0	N.N.W.	W.N.W.		45
11. 6¼	11. 7	W.N.W.	N.N.W.	45	
11. 11¼	11. 11½	N.N.W.	N.W.		22½
11. 22	12. 0½	N.W.	S.W.		90
12. 7	12. 9½	S.W.	N.N.W.	112½	
12. 11	12. 11¼	N.N.W.	N.	22½	
12. 12½	12. 12¾	N.	S.S.W.		157½
12. 16	12. 16¼	S.S.W.	S.E.		67½
12. 18¼	12. 18½	S.E.	N.	225	
12. 19¾	12. 19½	N.	W.S.W.	247½	
13. 0	13. 0¼	W.S.W.	S.W.		22½
14. 3½	14. 4	S.W.	W.S.W.	22½	
14. 16¾	14. 17¾	W.S.W.	S.S.E.	270	
14. 21¾	14. 22½	S.S.E.	E.		67½
15. 7	15. 7½	E.	E.S.E.	22½	
15. 9¾	15. 12¼	E.S.E.	S.S.W.	90	
16. 6	16. 7	S.S.W.	S.W.	22½	
16. 11	16. 11½	S.W.	S.E.	270	
16. 13½	16. 13¾	S.E.	N.E.		90
16. 15½	16. 16	N.E.	E.	45	
17. 1¼	17. 1½	E.	E.N.E.		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.
				°	°
Aug.—*cont.*					
d h	d h				
17. 8½	17. 8¾	E.N.E.	E.S.E.	45	
17. 12½	17. 13	E.S.E.	S.S.E.	45	
17. 14	17. 14½	S.S.E.	S.W.	67½	
18. 2	18. 3	S.W.	S.S.W.		22½
18. 21	18. 22	S.S.W.	S.W.	22½	
19. 21½	19. 22¾	S.W.	N.N.W.	112½	
20. 3	20. 5	N.N.W.	S.W.		112½
20. 12	20. 12½	S.W.	W.S.W.	22½	
21. 6½	21. 6¾	W.S.W.	N.N.W.	90	
21. 16½	21. 17½	N.N.W.	N.E.	67½	
21. 20	21. 22½	N.E.	S.E.	90	
22. 1	22. 1½	S.E.	N.E.		90
22. 3¾	22. 4¼	N.E.	S.W.	180	
24. 6	24. 7½	S.W.	W.N.W.	67½	
24. 11	24. 11½	W.N.W.	W.		22½
24. 15½	24. 15¾	W.	W.S.W.		22½
24. 18½	24. 18¾	W.S.W.	N.N.E.	135	
24. 19¼	24. 20¼	N.N.E.	S.W.	202½	
24. 21¾	24. 22	S.W.	W.S.W.	22½	
25. 10	25. 11	W.S.W.	N.W.	67½	
25. 13	25. 13½	N.W.	N.	45	
25. 16½	25. 16¾	N.	S.S.W.	202½	
25. 20	25. 20¼	S.S.W.	S.W.	22½	
25. 23¼	25. 23½	S.W.	N.N.W.	112½	
26. 2¼	26. 3	N.N.W.	N.E.	67½	
26. 10	26. 11	N.E.	S.E.	90	
26. 16½	26. 17	S.E.	E.		45
27. 5½	27. 6	E.	S.W.	135	
27. 12¾	27. 13¼	S.W.	S.E.		90
27. 16¾	27. 17¼	S.E.	N.W.	180	
27. 18½	27. 18¾	N.W.	E.	135	
27. 19½	27. 21	E.	S.	90	
28. 1¾	28. 2	S.	E.		90
28. 7	28. 8	E.	S.S.E.	67½	
28. 12½	28. 13	S.S.E.	S.	22½	
28. 18½	28. 19	S.	S.S.E.		22½
28. 23½	29. 0½	S.S.E.	E.N.E.		90
29. 7¼	29. 7½	E.N.E.	N.E.		22½
29. 9	29. 10	N.E.	E.	45	
29. 20	29. 20¾	E.	E.N.E.		22½
29. 22¾	29. 23½	E.N.E.	N.		67½
30. 18	30. 18½	N.	N.E.	45	
30. 21	30. 22¼	N.E.	E.N.E.	22½	
31. 3½	31. 6	E.N.E.	S.S.E.	90	
31. 10	31. 10¼	S.S.E.	S.E.		22½
31. 12½	31. 13¼	S.E.	S.W.	90	
31. 18	31. 20	S.W.	S.		45
			Sums	5085	2092½
				°	°
September.					
d h	d h				
1. 7½	1. 8	S.	E.		90
1. 10	1. 12	E.	S.S.W.	112½	
2. 15½	2. 16½	S.S.W.	S.S.E.		45
2. 19	2. 19¼	S.S.E.	S.E.		22½
2. 23	2. 23½	S.E.	S.	45	
3. 8½	3. 9	S.	S.W.	45	
4. 1	4. 2	S.W.	S.S.W.		22½
4. 11¼	4. 11½	S.S.W.	S.W.	22½	
5. 3	5. 4	S.W.	W.S.W.	22½	
5. 10½	5. 11½	W.S.W.	N.N.W.	90	
5. 15¾	5. 16	N.N.W.	N.E.	67½	
5. 17¼	5. 18½	N.E.	S.W.	180	
7. 13	7. 13¾	S.W.	S.E.	270	
7. 13¾	7. 14	S.E.	E.		45
7. 22	7. 22¼	E.	N.E.		45
7. 23½	7. 23¾	N.E.	S.E.	90	
8. 3½	8. 3¾	S.E.	N.E.		90
8. 8½	8. 9	N.E.	E.	45	
8. 22	8. 22¼	E.	N.E.		45
9. 5	9. 5½	N.E.	E.N.E.	22½	
9. 9½	9. 10	E.N.E.	E.	22½	
9. 17	9. 19½	E.	N.E.		45
10. 9	10. 11	N.E.	E.	45	
10. 18½	10. 20	E.	S.E.	45	
11. 18½	11. 20	S.E.	N.E.		90
12. 0	12. 0½	N.E.	N.N.E.		22½
12. 12	12. 13½	N.N.E.	N.N.W.		45
12. 20¼	12. 20½	N.N.W.	N.	22½	
13. 12	13. 13	N.	N.W.		45
13. 17½	13. 18½	N.W.	S.W.		90
13. 21	13. 21½	S.W.	N.W.	90	
13. 23¼	13. 23½	N.W.	W.S.W.		67½
14. 11½	14. 12	W.S.W.	W.	22½	
14. 18	14. 18½	W.	W.N.W.	22½	
14. 22½	14. 23½	W.N.W.	W.S.W.		45
15. 12½	15. 13	W.S.W.	S.W.		22½
16. 8½	16. 10	S.W.	W.S.W.	22½	
17. 7	17. 9¼	W.S.W.	N.W.	67½	
17. 21	17. 23	N.W.	W.S.W.		67½
18. 7½	18. 9	W.S.W.	N.N.W.	90	
18. 13¼	18. 13½	N.N.W.	N.	22½	
18. 16¼	18. 16¾	N.	N.N.E.	22½	
18. 18½	18. 19½	N.N.E.	S.	157½	
18. 22½	18. 22¾	S.	W.S.W.	67½	
19. 11	19. 11¼	W.S.W.	S.S.E.		90
19. 14½	19. 16½	S.S.E.	S.E.		22½
20. 0	20. 0¼	S.E.	E.N.E.		67½
20. 7¼	20. 7½	E.N.E.	E.S.E.	45	
20. 8¾	20. 9	E.S.E.	S.E.	22½	
20. 17¼	20. 17½	S.E.	E.S.E.		22½
21. 13	21. 14	E.S.E.	E.		22½
21. 23	21. 23½	E.	E.S.E.	22½	
22. 7½	22. 8	E.S.E.	S.E.	22½	
22. 17¾	22. 18	S.E.	E.		45
22. 23	22. 23½	E.	E.S.E.	22½	
23. 9½	23. 10½	E.S.E.	S.E.	22½	
23. 14	23. 14½	S.E.	S.S.W.	67½	
23. 17½	23. 18	S.S.W.	S.W.	22½	
23. 23	24. 1	S.W.	W.S.W.	22½	
				°	°
Sept.—*cont.*					
d h	d h				
24. 7½	24. 9½	W.S.W.	N.W.	67½	
24. 11¾	24. 12½	N.W.	N.	45	
24. 14½	24. 14¾	N.	N.N.E.	22½	
25. 9½	25. 9¾	N.N.E.	N.E.	22½	
25. 17½	25. 17¾	N.E.	S.E.	90	
25. 21½	25. 21¾	S.E.	N.E.		90
26. 1	26. 1¼	N.E.	N.		45
26. 3¼	26. 3½	N.	W.		90
26. 5¼	26. 5½	W.	W.S.W.		22½
26. 9½	26. 9¾	W.S.W.	E.N.E.	180	
26. 15½	26. 16½	E.N.E.	E.S.E.	45	
27. 3½	27. 4¼	E.S.E.	S.W.		247½
27. 9½	27. 10	S.W.	N.E.	180	
27. 14½	27. 14¾	N.E.	N.N.E.		22½
28. 8	28. 8½	N.N.E.	N.E.	22½	
28. 12½	28. 12¾	N.E.	N.N.E.		22½
29. 9	29. 10	N.N.E.	N.E.	22½	
			Sums	2700	1755
October.					
3. 9½	3. 10	N.E.	E.N.E.	22½	
4. 15	4. 15½	E.N.E.	N.E.		22½
5. 20	5. 20½	N.E.	N.N.E.		22½
6. 2	6. 3	N.N.E.	N.		22½
6. 12	6. 12¼	N.	S.W.		135
6. 17	6. 17¾	S.W.	N.N.E.	157½	
6. 21	6. 21¾	N.N.E.	W.S.W.	225	
7. 9¾	7. 10	W.S.W.	N.N.W.	90	
7. 14¼	7. 15	N.N.W.	N.	22½	
7. 22	7. 23	N.	N.E.	45	
8. 8¼	8. 9½	N.E.	E.N.E.	22½	
8. 12	8. 12¼	E.N.E.	E.	22½	
8. 14¾	8. 15	E.	E.S.E.	22½	
8. 20½	8. 21	E.S.E.	E.		22½
9. 18½	9. 19	E.	E.N.E.		22½
10. 3¼	10. 5½	E.N.E.	S.S.W.	135	
10. 16	10. 17½	S.S.W.	S.E.		67½
11. 1	11. 1½	S.E.	E.S.E.		22½
11. 11	11. 12¼	E.S.E.	N.		112½
12. 10	12. 10½	N.	N.N.E.	22½	
12. 15	12. 16¼	N.N.E.	S.S.W.	180	
12. 23	13. 0	S.S.W.	S.W.	22½	
14. 5¾	14. 7½	S.W.	W.S.W.	22½	
15. 0	15. 1	W.S.W.	S.W.		22½
16. 8½	16. 10	S.W.	W.S.W.	22½	
16. 12¼	16. 13¼	W.S.W.	W.N.W.	45	
16. 17½	16. 18	W.N.W.	W.		22½
16. 23	17. 0	W.	W.S.W.		22½
17. 8	17. 9½	W.S.W.	N.W.	67½	
17. 15½	17. 17½	N.W.	W.S.W.		67½
18. 0	18. 1	W.S.W.	S.		67½
18. 2½	18. 6	S.	E.		90

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.
				°	°
Oct.—*cont.*					
d h	d h				
18. 9	18. 10	E.	N.N.E.		67½
19. 3¼	19. 3½	N.N.E.	S.	157½	
19. 7	19. 7¾	S.	W.S.W.	67½	
19. 9½	19. 10	W.S.W.	S.E.		112½
19. 12½	19. 13	S.E.	S.S.W.	67½	
19. 16¾	19. 17	S.S.W.	S.E.		67½
19. 19½	19. 22½	S.E.	S.W.	90	
20. 13	20. 13½	S.W.	W.S.W.	22½	
20. 20	20. 21½	W.S.W.	N.N.W.	90	
21. 2	21. 4	N.N.W.	W.S.W.		90
21. 10	21. 11	W.S.W.	W.	22½	
21. 16	21. 18	W.	S.W.		45
22. 8	22. 14	S.W.	N.N.W.	112½	
23. 0	23. 2	N.N.W.	W.S.W.		90
23. 7½	23. 7¾	W.S.W.	S.S.W.		45
23. 10	23. 10½	S.S.W.	W.S.W.	45	
23. 12	23. 12¼	W.S.W.	S.W.	22½	
23. 15¾	23. 16	S.W.	S.		45
23. 23	23. 23½	S.	S.W.	45	
24. 10	24. 10½	S.W.	W.S.W.	22½	
24. 18	24. 18½	W.S.W.	S.S.W.		45
24. 23¼	24. 23½	S.S.W.	S.W.	22½	
25. 9	25. 11¾	S.W.	W.	45	
25. 14	25. 14¼	W.	N.W.	45	
25. 17	25. 20	N.W.	S.S.W.		112½
26. 14	26. 14½	S.S.W.	S.W.	22½	
26. 17	26. 19	S.W.	W.S.W.	22½	
27. 1	27. 2½	W.S.W.	W.N.W.	45	
27. 4¾	27. 5	W.N.W.	N.W.	22½	
27. 8	27. 9	N.W.	N.N.W.	22½	
27. 12	27. 12¼	N.N.W.	N.	22½	
27. 23	27. 23¼	N.	W.S.W.		112½
28. 2¼	28. 3½	W.S.W.	S.E.		112½
28. 9½	28. 10½	S.E.	S.W.	90	
28. 18¼	28. 18½	S.W.	S.S.E.		67½
29. 1¾	29. 2	S.S.E.	E.		67½
29. 6	29. 6¼	E.	N.E.		45
29. 8¼	29. 8½	N.E.	E.S.E.	67½	
29. 9½	29. 12¾	E.S.E.	S.W.	112½	
30. 5	30. 6	S.W.	W.S.W.	22½	
30. 9	30. 12	W.S.W.	N.	112½	
30. 23½	31. 0½	N.	W.S.W.		112½
31. 9½	31. 10	W.S.W.	W.	22½	
31. 17	31. 17½	W.	W.S.W.		22½
			Sums	2587½	2025

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
November.					
d h	d h				
1. 12¾	1. 13	W.S.W.	W.N.W.	45	
1. 15¾	1. 16	W.N.W.	N.W.	22½	
1. 18¾	1. 19	N.W.	N.N.W.	22½	
2. 0½	2. 2	N.N.W.	N.N.E.	45	
2. 9	2. 10½	N.N.E.	E.	67½	
2. 17	2. 18	E.	E.S.E.	22½	
3. 6½	3. 7	E.S.E.	S.E.	22½	
3. 9½	3. 12½	S.E.	W.	135	
3. 15	3. 15¼	W.	S.W.		45
3. 16¾	3. 17¼	S.W.	S.E.	270	
3. 20	3. 22	S.E.	E.S.E.		22½
4. 0½	4. 0¾	E.S.E.	E.N.E.		45
4. 6¾	4. 7	E.N.E.	E.S.E.	45	
4. 11	4. 11½	E.S.E.	E.		22½
5. 10	5. 12½	E.	S.S.E.	67½	
5. 14½	5. 16½	S.S.E.	S.S.W.	45	
6. 2½	6. 5¼	S.S.W.	S.E.		67½
6. 7½	6. 8	S.E.	E.		45
6. 19	6. 19¼	E.	S.E.	45	
6. 22	6. 22½	S.E.	S.S.E.	22½	
7. 1	7. 5¼	S.S.E.	S.W.	67½	
7. 17	7. 17½	S.W.	S.S.W.		22½
8. 2½	8. 3	S.S.W.	S.		22½
8. 13¼	8. 13½	S.	S.W.	45	
9. 4	9. 5	S.W.	S.S.W.		22½
9. 9	9. 12	S.S.W.	W.S.W.	45	
9. 23½	10. 0	W.S.W.	S.W.		22½
10. 14½	10. 19½	S.W.	S.S.E		67½
11. 0½	11. 1½	S.S.E.	S.E.		22½
11. 4	11. 4½	S.E.	E.S.E.		22½
11. 9¾	11. 12	E.S.E.	S.S.E.	45	
11. 16	11. 19	S.S.E.	S.S.W.	45	
12. 1	12. 5	S.S.W.	W.	67½	
12. 12	12. 12¼	W.	W.S.W.		22½
12. 20½	12. 21	W.S.W.	S.S.W.	45	
13. 10	13. 11½	S.S.W.	S.W.	22½	
13. 16	13. 17	S.W.	S.S.W.		22½
14. 17¾	14. 18	S.S.W.	S.S.E.	45	
14. 22	14. 23	S.S.E.	S.E.		22½
15. 10	15. 12	S.E.	N.E.		90
15. 13½	15. 15½	N.E.	E.	45	
15. 20	15. 21	E.	E.S.E.	22½	
16. 14	16. 16	E.S.E.	E.N.E.		45
16. 19½	16. 22	E.N.E.	E.	22½	
17. 20	17. 21	E.	E.S.E.	22½	
18. 6	18. 6½	E.S.E.	E.		22½
18. 12½	18. 14½	E.	E.N.E.		22½
19. 12½	19. 13	E.N.E.	N.E.		22½
20. 0½	20. 1	N.E.	N.N.E.		22½
20. 11½	20. 12	N.N.E.	N.E.	22½	
20. 14	20. 17	N.E.	E.S.E.	67½	
21. 6½	21. 8	E.S.E.	N.	247½	
21. 9½	21. 14½	N.	E.S.E.	112½	
22. 4	22. 6½	E.S.E.	S.S.E.	45	
22. 12	22. 13½	S.S.E.	S.	22½	
22. 16	22. 18	S.	S.E.		45
22. 23½	22. 23¾	S.E.	S.S.E.	22½	
23. 2½	23. 3	S.S.E.	S.	22½	
23. 5½	23. 9	S.	W.S.W.	67½	

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
Nov.—*cont.*					
d h	d h				
23. 15	23. 18	W.S.W.	S.S.W.		45
24. 2½	24. 3½	S.S.W.	S.S.E.		45
24. 18	24. 19	S.S.E.	S.	22½	
25. 1	25. 2	S.	S.S.E.		22½
25. 11¼	25. 12	S.S.E.	S.E.		22½
25. 14	25. 15	S.E.	E.S.E.		22½
25. 18½	25. 19	E.S.E.	E.		22½
26. 5½	26. 6	E.	E.S.E.	22½	
26. 13½	26. 14½	E.S.E.	E.		22½
26. 21½	26. 22½	E.	N.E.		45
27. 7	27. 8	N.E.	E.N.E.	22½	
27. 10	27. 10¼	E.N.E.	S.S.E.	90	
28. 12	28. 12¼	S.S.E.	S.S.W.	45	
29. 0½	29. 1	S.S.W.	S.S.E.		45
29. 13¾	29. 14	S.S.E.	E.S.E.		45
29. 16½	29. 17	E.S.E.	E.		22½
29. 21	29. 22½	E.	E.N.E.		22½
30. 1	30. 2	E.N.E.	E.	22½	
30. 14	30. 15½	E.	E.N.E.		22½
30. 19	30. 20	E.N.E.	N.N.E.		45
30. 23	30. 23¼	N.N.E.	N.		22½
			Sums	2182½	1350
December.					
1. 1	1. 2	N.	N.E.	45	
1. 8	1. 9	N.E.	S.	135	
1. 12½	1. 13	S.	S.S.E.		22½
1. 20	2. 0	S.S.E.	W.S.W.	90	
2. 7½	2. 8	W.S.W.	W.	22½	
2. 15	2. 15½	W.	W.S.W.		22½
3. 3¾	3. 6	W.S.W.	N.E.	157½	
3. 22½	4. 0	N.E.	N.		45
4. 8	4. 12	N.	N.E.	45	
5. 9½	5. 10	N.E.	E.N.E.	22½	
5. 21	5. 22	E.N.E.	E.	22½	
6. 15	6. 17½	E.	N.E.		45
8. 15	8. 15½	N.E.	E.N.E.	22½	
10. 10	10. 11½	E.N.E.	E.	22½	
10. 21	10. 21½	E.	E.N.E.		22½
12. 0	12. 0½	E.N.E.	N.E.		22½
12. 5¾	12. 6½	N.E.	S.E.	90	
12. 10½	12. 12	S.E.	E.		45
12. 17	12. 18	E.	E.S.E.	22½	
12. 22	13. 0	E.S.E.	S.	67½	
13. 7	13. 7½	S.	S.S.W.	22½	
15. 3½	15. 4¾	S.S.W.	S.W.	22½	
15. 10½	15. 13¾	S.W.	W.N.W.	67½	
15. 15½	15. 16	W.N.W.	W.		22½
15. 18	15. 19	W.	W.S.W.		22½
15. 22	15. 23	W.S.W.	S.S.W.		45
16. 9	16. 10	S.S.W.	S.W.	22½	
16. 20	16. 21	S.W.	W.S.W.	22½	

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

Greenwich Civil Time.		Change of Direction.		Amount of Motion.		Greenwich Civil Time.		Change of Direction.		Amount of Motion.		Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.	From	To	From	To	Direct.	Retrograde	From	To	From	To	Direct.	Retrograde.
				°	°					°	°					°	°
Dec.—*cont.*						Dec.—*cont.*						Dec.—*cont.*					
d h	d h					d h	d h					d h	d h				
17. 11½	17. 14	W.S.W.	N.	112½		22. 6	22. 8½	N.	N.E.	45		28. 15½	28. 16	W.S.W.	S.W.		22½
17. 17	17. 17¼	N.	S.		180	22. 11	22. 12	N.E.	E.	45		29. 3	29. 4	S.W.	S.S.W.		22½
17. 20½	17. 21	S.	S.S.E.		22½	22. 15	22. 16	E.	S.E.	45		29. 10	29. 12¼	S.S.W.	W.S.W.	45	
18. 0¼	18. 1	S.S.E.	W.	112½		22. 18½	22. 19	S.E.	S.S.E.	22½		29. 15	29. 15½	W.S.W.	S.W.		22½
18. 13½	18. 14½	W.	W.N.W.	22½		23. 2½	23. 4	S.S.E.	S.	22½		29. 21	29. 23	S.W.	W.S.W.	22½	
19. 2	19. 3	W.N.W.	N.W.	22½		23. 10	23. 12¼	S.	S.W.	45		31. 8	31. 12	W.S.W.	N.W.	67½	
19. 12	19. 12¼	N.W.	W.N.W.		22½	24. 10	24. 10½	S.W.	W.S.W.	22½		31. 15¾	31. 16	N.W.	W.N.W.		22½
19. 18	19. 18½	W.N.W.	W.S.W.		45	25. 11½	25. 12	W.S.W.	W.	22½		31. 21¼	31. 22	W.N.W.	W.S.W.		45
20. 10¾	20. 12	W.S.W.	N.N.W.	90		26. 4¼	26. 4½	W.	N.N.W.	67½							
20. 23	21. 1¼	N.N.W.	W.N.W.		45	26. 6½	26. 7½	N.N.W.	W.N.W.		45						
21. 5½	21. 6	W.N.W.	N.N.W.	45		26. 12	26. 12¼	W.N.W.	W.		22½				Sums	1822½	855
21. 13½	21. 14	N.N.W.	N.	22½		26. 22	26. 22½	W.	W.S.W.		22½						

Excess of Motion in each Month.

1902.	Direct.	Retrograde.
	°	°
January	922½	
February	1237½	
March	1102½	
April	742½	
May	1260	
June	900	
July	2340	
August	2992½	
September	945	
October	562½	
November	832½	
December	967½	

The whole excess of direct motion for the year was 14805°.

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	1902.												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	14·8	9·6	10·2	11·4	9·7	7·8	9·4	7·8	8·1	10·4	9·5	14·0	10·2
2	14·8	10·0	11·2	11·7	10·1	7·4	8·9	7·4	7·8	10·5	9·8	15·2	10·4
3	15·0	9·8	10·8	10·7	9·9	7·1	8·5	7·2	7·6	10·4	9·5	15·3	10·1
4	14·3	9·5	10·8	9·8	10·0	7·3	8·1	7·1	7·7	10·5	9·2	15·6	10·0
5	14·7	9·1	11·1	9·6	9·5	6·9	8·1	7·1	7·6	10·5	9·1	15·2	9·9
6	15·0	9·2	10·5	9·9	9·6	7·8	8·2	6·8	8·0	11·1	8·9	15·1	10·0
7	14·2	9·0	10·2	10·6	10·3	7·8	8·7	6·6	8·1	10·5	9·0	15·6	10·1
8	13·9	8·6	11·1	12·1	10·6	8·9	8·7	6·9	8·2	10·3	8·7	15·4	10·3
9	13·7	8·8	12·2	13·5	11·5	9·5	9·3	7·6	8·9	11·0	9·3	16·1	10·9
10	14·6	9·4	13·2	14·2	12·8	10·1	10·0	7·9	9·4	11·4	10·1	15·8	11·6
11	15·4	9·8	13·7	14·6	12·6	10·8	10·6	9·1	11·0	12·9	10·8	16·5	12·3
Noon.	16·4	10·3	14·6	16·0	13·5	11·1	11·7	9·1	11·5	13·8	11·2	17·3	13·0
h.													
13	17·2	11·7	14·6	16·3	13·2	11·7	11·7	9·7	12·2	14·7	12·5	17·9	13·6
14	17·5	11·8	14·5	16·5	13·1	11·5	12·9	10·5	11·9	14·7	12·8	18·3	13·8
15	17·2	11·4	13·9	16·7	12·5	12·2	12·6	10·9	12·1	14·9	12·3	18·0	13·7
16	16·3	11·3	13·9	16·6	13·0	11·7	12·8	11·3	11·3	13·7	11·6	17·2	13·4
17	15·5	11·0	13·4	16·0	12·8	10·8	12·6	11·0	10·4	13·1	11·1	15·8	12·8
18	15·4	9·9	12·2	14·9	11·7	10·0	12·7	10·5	10·0	11·5	10·3	16·4	12·1
19	14·8	9·5	11·8	13·1	11·1	10·7	12·5	9·8	9·5	11·1	10·0	16·0	11·7
20	14·4	9·8	11·8	12·4	10·4	8·9	11·9	8·2	9·8	11·3	9·9	15·5	11·2
21	13·9	9·5	11·1	12·2	9·5	9·0	10·9	8·1	8·7	11·0	9·6	15·2	10·7
22	14·0	8·9	10·4	12·4	9·3	8·5	10·4	8·0	8·6	10·5	9·5	14·5	10·4
23	14·3	8·6	10·0	12·0	9·4	8·4	10·0	8·2	8·0	10·8	9·4	14·3	10·3
Midnight.	14·4	8·8	10·4	11·4	9·5	8·2	9·4	7·5	8·1	10·4	9·3	14·2	10·1
Means	15·1	9·8	12·0	13·1	11·1	9·3	10·4	8·5	9·4	11·7	10·1	15·8	11·4
Greatest Hourly Measures.....	36	43	36	38	28	27	35	21	30	32	35	38	...
Least Hourly Measures.....	1	1	1	0	1	1	1	1	1	0	1	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.)

1902.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	...	+ 464	+ 109	+ 201	+ 683	...	...	+ 434	+ 180	+ 556	+ 356	+ 164
2	...	235	...	602	463	+ 230	+ 596	432	179	548	319	388
3	...	278	186	434	186	277	...	415	190	669	385	628
4	...	298	137	594	407	341	463	346	291	765	408	1076
5	...	360	175	156	382	290	451	337	407	...	268	905
6	...	254	220	291	658	246	134	231	280	295	146	857
7	+ 371	379	200	514	474	...	475	242	406	...	262	...
8	559	280	...	441	415	377	374	297	361	437	215	787
9	268	440	201	528	485	...	328	390	284	...	527	883
10	124	487	140	552	690	741	401	400	31	...	546	715
11	161	546	177	360	577	383	585	746	141	...	419	965
12	271	719	193	224	568	+ 191	501	657	370	261	428	1044
13	619	612	291	405	873	− 15	443	357	670	174	562	...
14	1076	563	130	385	699	+ 23	453	311	426	228	405	209
15	1036	448	205	178	281	76	666	173	327	110	335	554
16	...	...	...	385	...	285	422	327	325	397	405	255
17	...	...	285	324	...	410	685	113	735	760	576	204
18	656	471	280	293	...	278	819	95	819	385	584	489
19	770	282	283	232	...	262	681	125	522	522	908	556
20	296	318	88	251	...	217	481	312	465	...	957	497
21	158	353	192	241	682	307	785	521	369	689	...	319
22	118	242	237	150	311	317	493	312	283	700	801	317
23	126	141	357	271	172	373	561	298	331	428	589	509
24	109	21	...	387	213	274	349	162	600	514	394	640
25	367	169	...	332	194	228	454	321	580	492	124	422
26	435	203	383	362	338	233	66	279	573	401	210	445
27	135	180	263	211	328	351	309	323	423	420	338	454
28	260	+ 186	288	543	265	279	414	281	443	240	227	414
29	777		227	862	286	262	545	364	671	328	+ 357	681
30	517		151	+ 674	225	+ 210	525	470	+ 747	435	...	567
31	+ 347		+ 241		+ 139		+ 657	+ 141		+ 532		+ 803
Means	+ 415	+ 343	+ 217	+ 379	+ 423	+ 276	+ 487	+ 329	+ 414	+ 451	+ 430	+ 577

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.	1902.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight.	+ 359	+ 324	+ 249	+ 380	+ 503	+ 334	+ 469	+ 353	+ 398	+ 462	+ 432	+ 550	+ 401
1h	347	310	239	361	470	287	444	312	361	357	373	435	358
2	310	297	206	309	443	291	380	299	336	385	354	444	338
3	299	285	190	288	418	295	380	273	304	344	327	400	317
4	301	279	190	294	408	278	370	256	297	306	298	381	305
5	293	273	181	323	394	261	368	247	303	322	302	374	303
6	293	263	178	317	395	251	413	249	309	318	337	394	310
7	316	253	175	292	371	233	437	258	309	324	329	407	309
8	327	259	188	290	347	215	438	260	313	314	319	425	308
9	399	291	231	340	398	247	559	316	376	384	392	508	370
10	479	355	255	402	529	311	693	393	511	547	500	661	470
11	467	354	219	397	507	256	607	364	480	553	430	692	444
Noon.	475	361	208	387	450	214	520	368	428	502	440	659	418
13h	465	370	195	363	454	191	472	341	441	489	447	619	404
14	464	368	207	350	358	206	375	309	409	500	450	643	387
15	507	410	222	385	384	244	408	302	425	544	481	695	417
16	549	426	271	414	465	247	447	345	485	571	490	747	455
17	554	405	269	446	403	229	534	363	482	548	519	768	460
18	529	397	193	499	246	303	575	354	532	536	541	717	452
19	487	410	185	476	355	286	563	359	519	472	533	668	443
20	456	414	227	480	365	376	602	365	504	508	519	678	458
21	453	386	237	471	464	370	623	404	495	525	511	690	469
22	440	379	255	435	509	322	530	422	483	526	515	668	457
23	403	372	233	409	512	373	475	395	445	498	489	636	437
24	+ 378	+ 329	+ 229	+ 393	+ 458	+ 331	+ 480	+ 340	+ 410	+ 452	+ 423	+ 608	+ 403
Means. 0h.–23h.	+ 415	+ 343	+ 217	+ 379	+ 423	+ 276	+ 487	+ 329	+ 414	+ 451	+ 430	+ 577	+ 395
Means. 1h.–24h.	+ 416	+ 344	+ 216	+ 380	+ 421	+ 276	+ 487	+ 329	+ 415	+ 451	+ 430	+ 580	+ 395
Number of Days employed.	23	26	26	30	26	27	29	31	30	25	28	29	...

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

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

Hour, Greenwich Civil Time.	1902. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
Midnight.	+ 110	+ 290	+ 248	+ 343	+ 472	+ 248	+ 419	+ 353	+ 178	+ 519	+ 339	+ 386	+ 325
1^h	+ 90	265	231	294	428	186	371	284	148	275	260	158	249
2	− 13	235	192	234	434	216	267	277	150	370	266	303	244
3	+ 10	224	185	236	416	231	329	229	128	310	267	264	236
4	33	220	192	244	384	197	325	210	128	248	220	232	219
5	30	215	188	271	362	193	221	201	120	310	214	239	214
6	73	208	181	229	361	187	290	213	112	315	217	288	223
7	93	192	185	207	311	168	344	235	120	312	230	351	229
8	77	192	216	207	308	160	344	238	137	274	181	387	227
9	127	168	271	227	365	196	464	266	167	368	207	484	276
10	167	204	312	206	482	261	596	344	242	576	+ 247	647	357
11	110	156	236	254	498	200	479	340	195	592	− 1	678	311
Noon.	120	190	225	241	487	177	391	374	190	535	+ 77	540	296
13^h	143	198	193	194	470	156	366	343	185	505	77	483	276
14	187	207	191	184	315	188	193	286	160	570	100	574	263
15	207	229	213	183	325	240	294	276	73	644	124	620	286
16	177	226	272	189	478	196	279	336	143	659	197	661	318
17	240	234	251	264	442	137	493	325	80	585	259	661	331
18	237	236	120	347	83	245	631	288	227	525	327	474	312
19	220	285	90	340	269	180	581	308	252	400	321	384	302
20	223	313	157	261	288	296	606	373	273	516	307	484	341
21	217	227	179	263	469	252	641	359	287	563	333	562	363
22	180	199	233	254	528	192	447	380	262	609	327	576	349
23	183	235	199	266	523	325	409	353	232	574	334	533	347
24	+ 197	+ 202	+ 208	+ 309	+ 473	+ 274	+ 485	+ 280	+ 223	+ 485	+ 284	+ 487	+ 326
Means. 0^h.–23^h.	+ 135	+ 223	+ 207	+ 247	+ 396	+ 209	+ 408	+ 300	+ 175	+ 465	+ 226	+ 457	+ 287
Means. 1^h.–24^h.	+ 139	+ 219	+ 205	+ 246	+ 396	+ 211	+ 410	+ 297	+ 176	+ 463	+ 224	+ 461	+ 287
Number of Days employed.	3	8	10	7	13	12	8	16	6	8	7	9	...

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.	1902.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December	
Midnight.	+ 458	+ 408	+ 249	+ 389	+ 507	+ 402	+ 434	+ 378	+ 476	+ 448	+ 467	+ 576	+ 433
1h	454	392	231	381	486	360	442	361	435	401	414	523	407
2	428	387	203	334	444	345	409	330	398	381	387	466	376
3	415	361	182	304	427	346	398	330	366	332	342	406	351
4	417	352	177	305	439	338	383	319	360	299	329	403	343
5	406	343	170	336	449	310	412	314	367	311	364	412	349
6	404	328	169	346	456	299	450	311	379	310	400	433	357
7	439	318	173	315	429	291	450	294	378	317	370	431	350
8	458	335	179	310	387	270	446	290	378	321	356	422	346
9	540	398	214	364	433	303	557	380	462	374	442	491	413
10	628	485	231	452	581	381	687	464	615	541	593	664	527
11	629	521	219	430	483	316	609	418	586	550	553	708	502
Noon.	659	514	234	415	417	240	518	390	509	507	538	701	470
13h	642	537	225	403	384	218	457	369	531	495	548	682	458
14	629	524	219	400	381	218	375	354	494	501	531	664	441
15	680	570	230	442	393	240	380	373	531	527	591	684	470
16	735	610	272	479	406	298	457	424	584	547	611	734	513
17	727	580	281	502	407	325	510	469	601	530	620	760	526
18	684	568	240	540	394	361	525	468	634	551	628	772	530
19	627	539	251	515	407	373	535	428	615	511	615	749	514
20	584	526	274	541	380	441	592	396	599	519	604	729	515
21	584	507	286	530	407	475	642	458	599	540	606	745	532
22	569	511	278	485	421	438	603	477	567	511	590	709	513
23	515	488	264	450	444	410	530	472	516	474	548	684	483
24	+ 484	+ 418	+ 253	+ 424	+ 420	+ 396	+ 501	+ 441	+ 472	+ 447	+ 468	+ 669	+ 449
Means. 0h.–23h.	+ 555	+ 463	+ 227	+ 415	+ 432	+ 333	+ 492	+ 386	+ 499	+ 450	+ 502	+ 606	+ 447
Means. 1h.–24h.	+ 556	+ 463	+ 227	+ 417	+ 428	+ 333	+ 495	+ 389	+ 499	+ 450	+ 502	+ 610	+ 447
Number of Days employed.	14	12	14	21	7	13	15	9	20	10	13	14	...

AMOUNT of RAIN COLLECTED in each MONTH of the YEAR 1902.

MONTH, 1902.	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.	
		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	9	0·285	0·207	0·370	0·468	0·597	0·639	0·619	0·638
February	13	0·505	0·544	0·644	0·696	0·746	0·792	0·731	0·746
March	15	0·719	0·618	0·869	1·144	1·337	1·356	1·334	1·346
April	7	0·178	0·162	0·242	0·355	0·418	0·416	0·418	0·436
May	22	1·922	1·962	2·583	3·022	3·339	3·331	3·284	3·325
June	15	2·167	2·203	2·763	3·030	3·120	3·095	3·108	3·141
July	12	0·497	0·479	0·826	1·043	1·079	1·094	1·068	1·099
August	19	2·152	2·107	2·539	2·803	2·901	2·931	2·883	2·898
September	8	1·474	1·377	1·513	1·680	1·703	1·652	1·665	1·691
October	14	0·593	0·622	0·908	1·116	1·196	1·241	1·188	1·176
November	12	0·837	0·924	1·058	1·285	1·325	1·292	1·304	1·266
December	13	0·836	0·819	1·133	1·297	1·424	1·498	1·452	1·462
Sums	159	12·165	12·024	15·448	17·939	19·185	19·337	19·054	19·224
Height of receiving Surface above the ground	...	ft. in. 50. 8	ft. in. 50. 8	ft. in. 38. 4	ft. in. 21. 6	ft. in. 10. 0	ft. in. 0. 5	ft. in. 0. 5	ft. in. 0. 5
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. 155. 3	ft. in. 155. 3	ft. in. 155. 3

ROYAL OBSERVATORY, GREENWICH.

OBSERVATIONS

OF

LUMINOUS METEORS.

1902.

Month and Day, 1902.		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.	No. for Reference.
		h m s				s		°	
February	15	22. 19. 30±	N.	> 4	Bluish-white	Very rapid	...	...	1
May	4	19. 36. 33	W.P.	> 4	Yellow	4·5	None	80	2
August	2	22. 52. 30	S.	> 4	Blue burst into white	4·0	Brilliant	20	3
	,,	22. 53. 10	S.	> 1	Bluish-white	2·5	Brilliant	20	4
	,,	22. 55. 9	S.	> 1	White	2·0	Brilliant	25	5
	,,	23. 2. 57	S.	> 1	Bluish-white	2·0	Brilliant	20	6
August	9	22. 13. 14	S : P.&B.	> 1	Bluish-white	2·0	Bright : broken	20	7
	,,	22. 31. 29	S.&B.	1	Bluish-white	1·0	Bright : broken	15	8
	,,	23. 19. 44	S : P.&B.	1	Bluish-white	2·0	Bright : broken	20	9
	,,	23. 26. 13	S.	> 1	White	1·0	Bright : broken	20	10
	,,	23. 27. 49	B.&P.	> 1	Blue	2·0	Bright : broken	25	11
	,,	23. 41. 1	S.&B.	1	Bluish-white	1·5	Bright : broken	20	12
	,,	23. 44. 11	P.	1	Blue	1·0	Bright : broken	10	13
	,,	23. 50. 21	B.	> 1	Blue	1·5	Brilliant : broken	10	14
August	10	0. 2. 57	S.	> 1	Bluish-white	0·5	None	10	15
	,,	0. 33. 32	S : P.&B.	1	Bluish-white	1·0	Bright	10	16
	,,	0. 36. 10	S.&B.	> 1	White	1·5	Bright : broken	15	17
	,,	1. 6. 22	S.	> 1	Bluish-white	1·0	Brilliant : broken	20	18
	,,	1. 21. 7	S.&B.	> 1	Bluish-white	1·5	Bright : long	25	19
	,,	1. 22. 56	S.&P.	> 1	Bluish-white	1·0	Brilliant	15	20
	,,	1. 26. 13	P.&B.	1	White	1·0	Brilliant	25	21
	,,	1. 40. 20	S : P.&B.	> 1	Blue	0·5	Bright	35	22
	,,	2. 1. 58	S : P.&B.	> 1	White	1·0	Brilliant	10	23
	,,	2. 4. 24	S.	> 1	Bluish-white	1·0	Bright : long	10	24
	,,	2. 6. 9	P.&B.	2	Bluish-white	2·0	Faint	5	25
	,,	2. 8. 16	B.	> 1	White	0·5	Brilliant	20	26
	,,	2. 11. 51	S.&B.	1	Blue	1·0	Brilliant	5	27
	,,	2. 12. 33	B.	> 1	Bluish-white	1·0	Brilliant	15	28
	,,	2. 20. 11	P.	> 1	Bluish-white	1·5	Brilliant : long	20	29
	,,	2. 24. 29	S : P.&B.	> 1	Bluish-white	2·0	None	10	30
	,,	2. 24. 37	S.&P.	> 1	Bluish-white	3·0	Long	15	31
	,,	2. 31. 52	S.	1	White	1·0	Slight	10	32
	,,	2. 37. 44	B.	2	White	1·5	Slight	5	33
	,,	2. 43. 23	P.	1	Bluish-white	1·0	Slight	5	34
	,,	20. 53. 45	S.&P.	> 1	White	1·0	Brilliant	20	35
	,,	21. 3. 56	S.&B.	> 1	Bluish-white	1·0	Bright	15	36
	,,	21. 19. 59	B.	1	Bluish-white	0·5	...	10	37
	,,	21. 26. 17	B.	> 1	Bluish-white	1·5	Brilliant	5	38
	,,	21. 27. 32	S.	> 1	White	1·0	Brilliant	15	39
	,,	21. 29. 13	S.&P.	> 1	Blue	1·5	Brilliant	45	40
	,,	21. 31. 32	B.	> 1	Bluish-white	2·0	Bright : long	15	41
	,,	21. 34. 6	P.	> 1	White	2·0	Bright : long	20	42
	,,	20. 40. 43	S.	1	Bluish-white	1·0	Brilliant	15	43
	,,	21. 43. 13	S.&P.	> 1	Green	1·0	Brilliant : short	10	44
	,,	21. 53. 56	B.	1	Bluish-white	0·5	...	5	45
	,,	22. 4. 32	S.&B.	> 1	Bluish-white	1·0	Brilliant	25	46
	,,	22. 4. 39	P.&B.	> 1	White	1·5	Very bright	10	47
	,,	22. 15. 19	B.	1	Bluish-white	1·0	Bright	10	48
	,,	22. 15. 42	S.&B.	> 1	Bluish-white	1·5	Long	30	49
	,,	22. 15. 54	B.	> 1	Bluish-white	3·0	Long : bright	15	50
	,,	22. 19. 50	S.&P.	4	Blue	3·0	Brilliant	35	51
	,,	22. 27. 54	S.&P.	> 1	Blue	2·0	Brilliant	30	52
	,,	22. 33. 37	S.	4	Green	3·0	Brilliant	45	53

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

No. for Reference.	Path of Meteor in the Sky.
1	From direction of γ Orionis disappeared about 15° below the moon cut off by obstacles). A very brilliant meteor. { apparent R.A. = $3^h\ 52^m$, N.P.D. = 72° } (but view of end of path partly
2	From direction of Castor towards α Lyræ.
3	From ζ Cephei towards γ Lyræ.
4	From γ Andromedæ towards γ Pegasi.
5	From β Cassiopeiæ towards α Cygni.
6	From β Andromedæ towards ι Piscium.
7	From α Cephei towards μ Herculis.
8	From ζ Cephei towards δ Cygni.
9	From β Cygni towards η Serpentis.
10	From α Persei towards Polaris.
11	From γ Persei towards o Cephei.
12	From π Herculis towards Jupiter { R.A. = $20^h\ 58^m$, N.P.D. = 108° 7′ }
13	From π Pegasi towards γ Delphini.
14	From κ Draconis towards ϵ Ursæ Majoris.
15	From γ Cassiopeiæ towards ζ Cephei.
16	From λ Cassiopeiæ towards Polaris.
17	From β Andromedæ towards γ Pegasi.
18	From β Cassiopeiæ towards α Cygni.
19	From α Persei towards ϵ Piscium.
20	From α Persei towards β Aurigæ
21	From β Andromedæ towards γ Piscium.
22	From β Cassiopeiæ towards β Cygni.
23	From ζ Draconis towards γ Cassiopeiæ.
24	From β Draconis towards β Herculis.
25	From α Aurigæ towards θ Aurigæ.
26	From β Trianguli towards η Piscium.
27	From α Draconis towards γ Cassiopeiæ.
28	From β Cassiopeiæ towards ϵ Cephei.
29	From β Aurigæ towards θ Gemini.
30	From α Andromedæ towards α Pegasi.
31	From β Ceti towards Fomalhaut.
32	From α Arietis towards η Piscium.
33	From τ Ceti towards α Sculptoris.
34	From Aldebaran towards β Eridani.
35	From ϕ Andromedæ towards α Cygni.
36	From θ Cephei to a point midway between ϵ and β Lyræ.
37	From o Lacertæ towards ζ Cygni.
38	From α Draconis towards θ Boötis.
39	From β Andromedæ towards α Pegasi.
40	From γ Cassiopeiæ towards α Cygni.
41	From ϵ Cygni towards α Aquilæ.
42	From α Persei towards Polaris.
43	From α Pegasi towards β Piscium.
44	From γ Persei towards β Aurigæ.
45	From κ Draconis towards ϵ Ursæ Majoris.
46	From γ Camelopardi towards κ Draconis.
47	From β Ursæ Majoris towards ν Ursæ Majoris.
48	From γ Camelopardi towards β Ursæ Majoris.
49	From γ Camelopardi towards ζ Ursæ Majoris.
50	From β Camelopardi towards 24 Lyncis.
51	From γ Cassiopeiæ towards α Cygni.
52	From ϕ Andromedæ towards θ Pegasi.
53	From α Andromedæ towards θ Aquilæ.

Month and Day, 1902.	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.	No. for Reference.
	h m s				s		°	
August 10	22. 35. 5	B.	1	Bluish-white	1·0	Bright	5	1
,,	22. 40. 23	S.&P.	>1	White	1·0	Brilliant	20	2
,,	22. 40. 57	P.	>1	Bluish-white	0·5	Slight	10	3
,,	22. 43. 48	S.&B.	>1	Bluish-white	1·0	Broken	10	4
,,	22. 50. 39	S : P.&B.	4	Blue	4·0	Long (2 secs.)	50	5
,,	22. 52. 57	S.&B.	1	White	0·5	None	5	6
,,	23. 0. 13	B.&P.	1	Bluish-white	0·5	None	5	7
,,	23. 2. 3	B.	>1	Bluish-white	1·0	Bright	10	8
,,	23. 6. 42	S.&P.	>1	White	1·5	Brilliant	20	9
,,	23. 7. 35	S.&P.	>1	Bluish-white	1·5	Brilliant	25	10
,,	23. 11. 44	S.&B.	>1	White	1·5	Brilliant	35	11
August 11	0. 9. 32	S.	>1	Bluish-white	1·0	Brilliant	15	12
,,	0. 11. 14	B.	>1	Bluish-white	1·0	Brilliant	15	13
,,	0. 15. 23	S.&P.	>1	White	0·5	Brilliant	20	14
,,	0. 16. 23	P.&B.	>1	Bluish-white	2·0	Long (2 secs.)	10	15
,,	0. 19. 49	B.	1	Bluish-white	1·5	Bright	10	16
,,	0. 22. 50	P.	1	Bluish-white	1·0	Slight	5	17
,,	0. 23. 47	S.	>1	Bluish-white changing to white	0·5	None	5	18
,,	0. 25. 14	S.&B.	>1	Blue	1·0	Bright	15	19
,,	0. 29. 45	S.	1	Blue	1·5	Slight	15	20
,,	0. 29. 58	S.	>1	Bluish-white	1·5	Brilliant	20	21
,,	0. 29. 59	S.	>1	Bluish-white	1·0	Brilliant	20	22
,,	0. 35. 49	B.	>1	Bluish-white	1·5	Bright	15	23
,,	0. 38. 58	S.	1	White	1·0	Bright	15	24
,,	0. 39. 41	B.	1	Bluish-white	1·0	Slight	10	25
,,	0. 41. 35	S.&P.	>1	Bluish-white	1·0	Bright	15	26
,,	0. 43. 46	B.	>1	Bluish-white	1·5	Brilliant	10	27
,,	0. 45. 51	S.	>1	Bluish-white	2·0	Very bright	40	28
,,	0. 45. 53	S.	>1	Bluish-white	2·0	Bright	30	29
,,	0. 46. 55	S.	>1	Bluish-white	3·0	Brilliant	35	30
,,	0. 49. 31	B.	>1	White	2·0	Brilliant	30	31
,,	0. 50. 36	B.	>1	Bluish-white	3·0	Brilliant	40	32
,,	0. 51. 23	B.	>1	Bluish-white	1·5	Bright	10	33
,,	0. 54. 14	B.&P.	>1	Blue	2·0	Burst into a bright blue flame	10	34
,,	0. 55. 31	S.	>1	Blue	2·0	Brilliant	25	35
,,	0. 57. 21	P.	>1	Bluish-white	1·0	Brilliant	20	36
,,	1. 1. 26	P.	>1	Bluish-white	0·5	None	5	37
,,	1. 2. 31	B.	1	Bluish-white	1·5	Bright	15	38
,,	1. 7. 38	P.&B.	1	Bluish-white	1·5	Bright	10	39
,,	1. 8. 17	B.	>1	Bluish-white	1·0	Bright : bluish train	10	40
,,	1. 12. 40	S.&P.	>1	Blue	1·5	Bright	25	41
,,	1. 14. 23	S.	>1	White	1·0	Brilliant	20	42
,,	1. 15. 27	P.	1	Bluish-white	1·5	None	10	43
,,	1. 15. 42	B.	>1	Bluish-white	2·0	Very bright	20	44
,,	1. 16. 46	P.	1	Bluish-white	1·5	None	15	45
,,	1. 25. 28	S : P.&B.	>1	Bluish-white	1·0	Bright	15	46
,,	1. 28. 25	S.&B.	>1	Bluish-white	0·5	Brilliant	20	47
,,	1. 29. 14	P.&B.	1	Bluish-white	2·0	Brilliant	15	48
,,	1. 34. 10	S.&B.	>1	Bluish-white	1·0	Bright	10	49
,,	1. 38. 49	S.	>1	Bluish-white	1·0	Bright	20	50
,,	1. 49. 25	P.	1	Bluish-white	1·5	Slight	10	51
,,	1. 49. 40	S.	>1	White	1·5	Brilliant	25	52
,,	1. 49. 43	P.	1	Bluish-white	1·5	Brilliant	10	53
,,	1. 49. 54	S.	>1	Blue	0·5	Brilliant	20	54
,,	1. 50. 46	S.&B.	>1	Bluish-white	1·0	Brilliant	20	55
,,	1. 52. 12	B.	>1	Bluish-white	1·5	Brilliant	15	56
,,	1. 53. 6	P.&B.	>1	Blue	1·5	None	10	57
,,	1. 53. 19	P.	1	Bluish-white	1·0	Bright	15	58
,,	1. 53. 26	B.	>1	White	1·5	Bright	10	59
,,	1. 55. 25	S.	4	Bluish-white	2·0	Brilliant : long	20	60
,,	1. 58. 58	S.	>1	Bluish-white changing to white	1·0	Bright	20	61

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

No. for Reference.	Path of Meteor in the Sky.
1	From η Andromedæ towards α Andromedæ.
2	From α Camelopardi towards β Ursæ Majoris.
3	From Polaris towards β Ursæ Minoris.
4	From Polaris towards α Draconis.
5	From α Andromedæ to a point a little to the North of Jupiter (R.A. = $20^h\ 57^m$; N.P.D. = $108°\ 10'$).
6	From Capella towards β Aurigæ.
7	From α Cassiopeiæ towards α Lacertæ.
8	From β Andromedæ towards γ Pegasi.
9	From α Persei towards Polaris.
10	From β Ursæ Majoris towards β Camelopardi.
11	From α Persei towards o Lyncis.
12	From β Camelopardi towards θ Ursæ Majoris.
13	From β Andromedæ towards γ Pegasi.
14	From α Pegasi towards δ Capricorni.
15	From α Andromedæ towards 70 Pegasi.
16	From γ Andromedæ towards δ Andromedæ.
17	From γ Draconis to a point a little beyond ι Herculis.
18	From α Persei moved about 5° towards Capella, burst, and disappeared.
19	From α Persei towards Polaris.
20	From α Persei towards Polaris.
21	From α Camelopardi towards α Ursæ Majoris.
22	From β Camelopardi towards ϕ Ursæ Majoris.
23	From β Andromedæ towards ψ Pegasi.
24	From α Cygni towards β Cygni.
25	From κ Andromedæ towards β Andromedæ.
26	From ζ Persei towards δ Tauri.
27	From γ Cassiopeiæ towards β Persei.
28	From α Persei towards α Andromedæ.
29	From α Persei towards Polaris.
30	From α Persei to a point about 2° North of Polaris.
31	From γ Cassiopeiæ towards α Cygni.
32	From α Persei towards α Ursæ Majoris.
33	From α Andromedæ to a point 5° West of γ Pegasi.
34	From α Persei to a point 5° South of the Pleiades.
35	From α Andromedæ towards γ Aquarii.
36	From Polaris towards κ Cygni.
37	From ι Cephei towards κ Cygni.
38	From β Cassiopeiæ towards θ Cephei.
39	From α Persei towards the Pleiades.
40	From the Pleiades towards α Ceti.
41	From α Andromedæ towards α Aquarii.
42	From α Lyræ towards α Ophiuchi.
43	From χ Pegasi towards λ Piscium.
44	From Capella towards Castor.
45	From χ Pegasi towards λ Piscium.
46	From γ Cassiopeiæ towards η Cephei.
47	From the Pleiades towards Capella.
48	From α Persei towards β Tauri.
49	From η Piscium towards η Ceti.
50	From β Cephei towards π Herculis.
51	From the Pleiades towards γ Tauri.
52	From ϵ Cassiopeiæ towards λ Draconis.
53	From α Andromedæ towards α Pegasi.
54	From α Cygni towards ϵ Aquilæ.
55	From α Cygni towards ϵ Aquilæ.
56	From α Lyræ towards δ Herculis.
57	From α Persei towards Capella.
58	From Polaris towards β Ursæ Minoris.
59	From α Persei towards β Aurigæ.
60	From α Persei towards Aldebaran.
61	From α Persei towards Aldebaran.

Month and Day, 1902.	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.	No. for Reference.
	h m s				s		°	
August 11	1.59. 4	P.&B.	1	Bluish-white	1·0	Slight	10	1
,,	2. 2. 2	B.	>1	Bluish-white	1·5	None	15	2
,,	2. 2.19	P.&B.	>1	Bluish white	1·0	Bright	10	3
,,	2. 2.59	P.	1	Blue	1·0	Slight	10	4
,,	2. 5.36	S.	>1	Bluish-white	1·0	Brilliant	15	5
,,	2. 7.55	S.	1	White	0·5	Bright	20	6
,,	2. 9.48	S.&B.	>1	Bluish-white	1·0	Bright : broken	15	7
,,	2.12. 6	S.&P.	1	Bluish-white	1·0	None	5	8
,,	2.15.19	P.&B.	>1	White	0·5	Bright	20	9
,,	2.16.53	S.&B.	>1	Bluish-white	1·5	Bright : broken	25	10
,,	3. 0.40	S.	>1	Blue	1·0	Brilliant	20	11
,,	3. 2.53	P.&B.	>1	Bluish-white	2·0	Brilliant	20	12
,,	3. 4. 4	S.&B.	1	Bluish-white	1·5	Brilliant	45	13
,,	3. 5.19	P.	>1	White	2·0	Brilliant	15	14
,,	3.17.48	S.	>1	White	1·0	Brilliant	25	15
,,	3.23. 4	B.	1	Bluish-white	0·5	None	5	16
,,	3.32.34	S.&P.	1	Bluish-white	1·0	Bright	15	17
,,	3.43. 9	S.&B.	>1	Bluish-white	1·5	Bright	20	18
,,	3.44.11	B.	>1	Bluish-white	1·0	Brilliant	15	19
,,	3.45.56	S.	1	White	0·5	Bright	25	20
,,	3.49.17	S.&B.	>1	Bluish-white	1·5	None	15	21
,,	3.52.32	P.	>1	Blue	2·0	Bright	20	22
,,	4. 0.56	B.	>1	Bluish-white	1·5	Bright	25	23
,,	4. 1.47	P.&B.	1	Bluish-white	2·5	Brilliant	15	24
,,	4. 3. 6	S.	>1	Bluish-white	1·0	None	20	25
,,	4. 6.49	S.&P.	>1	White	0·5	Slight	20	26
,,	21.39.44	B.&T.S.	1	Bluish-white	1·0	Slight	5	27
,,	21.42.55	S.	>1	Bluish-white	1·5	Faint	20	28
,,	21.46.20	S.	1	Bluish-white	0·5	Short	10	29
,,	21.48.24	B.	1	Bluish-white	1·0	None	5	30
,,	21.51.17	B.&T.S.	>1	Bluish-white	1·5	Bright	5	31
,,	21.51.52	S.&T.S.	>1	Bluish-white	1·0	Brilliant	30	32
,,	22. 0.28	T.S.	1	Bluish-white	0·5	...	10	33
,,	22. 7.12	B.	>1	Blue	1·5	Bright	10	34
,,	22. 8.42	S.	1	Bluish-white	1·0	Bright	15	35
,,	22.13.47	B.	>1	Bluish-white	1·5	Bright : long	15	36
,,	22.24.22	B.&T.S.	1	White	0·5	Brilliant	5	37
,,	22.25.52	S.	>1	White	1·5	Brilliant : long	20	38
,,	22.34.54	S.	>1	Blue	1·0	Brilliant	15	39
,,	22.45.12	B.	>1	Green	2·0	Brilliant	20	40
,,	22.48.17	S.	>1	Bluish-white	1·5	Brilliant	20	41
,,	22.52.27	B.&T.S.	1	Bluish-white	0·5	Short	5	42
,,	22.53.32	S:B.&T.S.	1	Bluish-white	1·0	Brilliant	15	43
,,	22.56.40	S.&B.	1	Bluish-white	1·0	Brilliant	10	44
,,	22.56.41	S.	1	Bluish-white changing to white	2·5	Brilliant : long	35	45
,,	22.58. 7	B.&T.S.	1	Bright blue	1·5	Slight	15	46
,,	23. 4.18	S.&T.S.	>1	Blue	1·0	Brilliant	25	47
,,	23. 7.46	S:B.&T.S.	2	Blue	2·0	Slight at first opened out to a glowing train of sparks	30	48
,,	23.10.43	B.	2	Bluish-white	0·5	Slight	10	49
,,	23.11. 1	S.	>1	Blue	1·5	Brilliant	15	50
,,	23.11.43	S.&T.S.	>1	Bluish-white	1·0	Brilliant	15	51
,,	23.11.46	B.&T.S.	1	Bluish-white	1·0	None	10	52
,,	23.15.23	B.	>1	Bluish-white	0·5	Bright	10	53
,,	23.16.21	S.&T.S.	1	Bluish-white	1·0	Slight	15	54
,,	23.17. 4	B.	1	Bluish-white	1·5	Bright	20	55
,,	23.17.43	S.	>1	Bluish-white	1·0	Brilliant	15	56
,,	23.18.18	S.	>1	Bluish-white	1·5	Bright	30	57
,,	23.19. 5	B.&T.S.	1	Blue	1·0	Bright	10	58
,,	23.20.55	S.	>1	White	1·0	Bright	15	59
,,	23.24.18	S.	>1	Bluish-white	1·0	Bright	15	60
,,	23.24.24	S.	>1	Bluish-white	1·0	Bright	15	61
,,	23.26.45	S.&T.S.	2	Bright blue	0·5	...	5	62
,,	23.28.56	S.&B	>1	Bluish-white	1·0	Brilliant	20	63
,,	23.31.31	S.&B.	>1	Red	1·0	Brilliant	35	64

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

No. for Reference.	Path of Meteor in the Sky.
1	From α Lyræ towards α Herculis.
2	From α Persei towards β Aquarii.
3	From γ Cygni towards α Vulpeculæ.
4	From α Andromedæ towards β Pegasi.
5	From μ Persei towards θ Geminorum.
6	From α Cephei towards α Lyræ.
7	From γ Cassiopeiæ towards α Cygni.
8	From ξ Cassiopeiæ towards o Andromedæ.
9	From β Persei towards λ Ceti.
10	From α Cassiopeiæ to a point midway between ϵ and γ Cygni.
11	From β Andromedæ towards α Pegasi.
12	From β Aurigæ towards Castor.
13	From α Persei towards α Cygni.
14	From α Persei towards θ Aurigæ.
15	From γ Persei towards Polaris.
16	From β Persei towards ϵ Arietis.
17	From β Aurigæ towards Castor.
18	From β Trianguli towards ϵ Piscium.
19	From κ Persei towards β Aurigæ.
20	From α Arietis towards η Ceti.
21	From γ Andromedæ towards ζ Andromedæ.
22	From β Cassiopeiæ towards ϵ Cygni.
23	From α Persei towards Polaris.
24	From α Cassiopeiæ towards α Lacertæ.
25	From γ Ceti towards κ Fornacis.
26	From Aldebaran towards α Leporis.
27	From ζ Cephei towards α Cygni.
28	From γ Cygni towards ϵ Aquilæ.
29	From α Cephei towards ι Cygni.
30	From Polaris towards β Ursæ Minoris.
31	From γ Camelopardali towards γ Cephei.
32	From β Cassiopeiæ towards α Cygni.
33	From γ Cygni towards β Cygni.
34	From γ Cephei towards τ Draconis.
35	From α Ursæ Majoris towards γ Ursæ Majoris.
36	From δ Cassiopeiæ towards β Cephei.
37	From θ Ursæ Majoris towards λ Ursæ Majoris.
38	From β Camelopardi towards o Ursæ Majoris.
39	From β Pegasi to a point a little beyond ϵ Pegasi.
40	From γ Cassiopeiæ towards α Cygni.
41	From α Persei towards Capella.
42	From γ Cygni towards β Cygni.
43	From β Pegasi towards δ Capricorni.
44	From Polaris towards β Ursæ Minoris.
45	From Polaris towards κ Boötis.
46	From 72 Cassiopeiæ towards Polaris.
47	From α Andromedæ towards η Aquarii.
48	From α Persei towards α Piscium.
49	From α Cassiopeiæ towards α Lacertæ.
50	From Polaris towards ι Draconis.
51	From β Trianguli towards η Piscium.
52	From η Andromedæ towards ι Piscium.
53	From β Pegasi towards ζ Pegasi.
54	From α Persei towards Capella.
55	From θ Piscium towards o Aquarii.
56	From α Andromedæ towards α Pegasi.
57	From α Persei towards Polaris.
58	From ζ Cephei towards γ Cygni.
59	From α Persei towards β Aurigæ.
60	From γ Draconis towards ζ Herculis.
61	From δ Andromedæ towards ι Piscium.
62	At a point a little to the West of α Persei a meteor suddenly appeared, opened out as large as Jupiter, burst, and disappeared.
63	From γ Cassiopeiæ towards δ Cygni.
64	From α Andromedæ towards α Aquarii.

Month and Day, 1902.	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.	No. for Reference.
	h m s				s		°	
August 11	23. 31. 33	S.&B.	>1	Bluish-white	1·5	Brilliant	30	1
,,	23. 33. 13	B.&T.S.	>1	Bluish-white	1·0	Brilliant	25	2
,,	23. 33. 45	S.&B.	>1	Blue	1·0	Brilliant	20	3
,,	23. 35. 56	B.	>1	Bluish-white	1·5	Brilliant	10	4
,,	23. 39. 1	T.S.	>1	White	1·0	Brilliant	15	5
,,	23. 41. 12	B.	>1	Bluish-white	1·5	Brilliant	20	6
,,	23. 45. 13	S.&B.	2	Green	2·5	Brilliant : long	30	7
,,	23. 45. 34	T.S.	>1	Bluish-white	1·5	Bright : broken	15	8
,,	23. 45. 38	B.	1	Bluish-white	1·0	Bright : broken	15	9
,,	23. 47. 12	S.&B.	>1	White	1·0	Bright	10	10
August 12	0. 8. 19	S.	2	White	0·5	Bright	15	11
,,	0. 11. 28	B.	>1	Bluish-white	0·5	Bright : short	5	12
,,	0. 12. 25	T.S.	1	Bluish-white	1·0	Slight	10	13
,,	0. 12. 50	S.	>1	Blue	1·0	Brilliant	20	14
,,	0. 16. 0	S.	>1	White	0·5	Bright	15	15
,,	0. 16. 20	B.&T.S.	1	Bluish-white	1·0	Bright : broken	20	16
,,	0. 19. 46	S.	>1	White	1·0	Bright : broken	25	17
,,	0. 23. 38	S.	>1	White	0·5	Bright	15	18
,,	0. 37. 0	T.S.	>1	Bluish-white	1·0	Bright	10	29
,,	0. 38. 11	S.&B.	>1	Blue	1·0	Slight	15	20
,,	0. 39. 19	S.	1	White	1·5	Brilliant : long	25	21
,,	0. 40. 2	T.S.	>1	Bluish-white	2·0	Brilliant : long	35	22
,,	0. 40. 22	B.&T.S.	1	Bluish-white	1·0	Bright	15	23
,,	0. 47. 46	T.S.	>1	Bluish-white	1·5	Bright : broken	15	24
,,	0. 50. 1	S.&B.	>1	White	1·5	Bright : broken	25	25
,,	0. 51. 48	B.	1	White	1·0	Bright : broken	20	26
,,	0. 58. 52	S.	>1	Blue	1·5	Bright : broken	20	27
,,	1. 1. 1	B.	1	Bluish-white	1·5	Bright : broken	20	28
,,	1. 8. 12	T.S.	>1	Bluish-white	1·0	Bright : broken	10	29
,,	1. 9. 18	S.	>1	Bluish-white	1·5	Brilliant	25	30
,,	1. 10. 29	S.&B.	>1	Bluish-white	2·0	Brilliant	30	31
,,	1. 12. 40	B.&T.S.	1	White	1·5	Slight	15	32
,,	1. 25. 17	S:B.&T.S.	1	White	1·0	Bright : broken	15	33
,,	1. 29. 1	S.	2	Bluish-white	1·5	None	20	34
,,	1. 30. 7	B.	>1	White	0·5	Brilliant	15	35
,,	1. 32. 39	T.S.	>1	Blue	1·0	Bright : broken	20	36
,,	21. 5. 11	B.&T.S.	>1	Bluish-white	1·5	Bright	25	37
,,	21. 9. 50	S.&B.	>1	Bluish-white	1·0	Bright	15	38
,,	21. 25. 42	S.	>1	Bluish-white	0·5	None	15	39
,,	21. 28. 25	B.	>1	Bluish-white	1·0	Bright	20	40
,,	21. 32. 0	S.	>1	Bluish-white	1·0	None	15	41
,,	21. 41. 10	S.&B.	1	Bluish-white	1·0	Bright	20	42
,,	21. 42. 27	T.S.	1	Bluish-white	0·5	Brilliant	10	43
,,	21. 44. 38	T.S.	>1	White	1·5	Bright	20	44
,,	21. 49. 53	B.&T.S.	1	Bluish-white	0·5	Short	15	45
,,	21. 50. 41	S.	>1	Bluish-white	0·5	Bright	10	46
,,	21. 53. 41	S:B.&T.S.	>1	Reddish	1·5	Brilliant	30	47
,,	21. 56. 13	B.	1	Bluish-white	0·5	Bright : broken	10	48
,,	21. 56. 23	S.&B.	>1	Bluish-white	0·5	...	15	49
,,	21. 59. 19	B.	>1	Bluish-white	1·0	Very bright	10	50
,,	22. 8. 24	B.	>1	White changing to blue	1·5	Very bright	15	51
,,	22. 8. 27	B.&T.S.	>1	Bright green	2·0	Brilliant	25	52
,,	22. 17. 48	S.&B.	2	Bluish-white	2·0	Brilliant	20	53
,,	22. 22. 11	B.&T.S.	1	Bluish-white	0·5	...	15	54
,,	22. 25. 36	T.S.	>1	Bluish-white	1·0	Brilliant : broken	15	55
,,	22. 26. 15	S.&B.	>1	White	1·5	Bright : broken	30	56
,,	22. 30. 12	S:B.&T.S.	2	White changing to blue	4·0	Very brilliant : long	60	57
,,	22. 37. 11	S.	>1	Blue	1·0	Brilliant	20	58
,,	22. 41. 8	T.S.	1	Bluish-white	1·0	Bright	10	59
,,	22. 42. 5	S.&B.	>1	Reddish	1·0	Bright	15	60
,,	22. 43. 34	S.	>1	Bluish-white	1·0	Bright	25	61
,,	22. 43. 54	T.S.	>1	Blue	1·0	Brilliant	15	62
,,	22. 44. 19	B.	1	Bluish-white	0·5	...	20	63

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

No. for Reference.	Path of Meteor in the Sky.
1	From β Cassiopeiæ towards γ Cygni.
2	From α Persei towards Polaris.
3	From ϵ Cassiopeiæ towards β Cephei.
4	From β Andromedæ towards γ Pegasi.
5	From β Cephei towards ξ Draconis.
6	From α Persei towards β Tauri.
7	From α Persei towards ϵ Piscium.
8	From η Cassiopeiæ towards δ Andromedæ.
9	From α Persei towards α Cassiopeiæ.
10	From β Trianguli towards η Piscium.
11	From α Andromedæ towards λ Piscium.
12	From δ Persei towards ϕ Arietis.
13	From ϵ Cassiopeiæ towards Polaris.
14	From α Andromedæ towards θ Aquarii.
15	From β Andromedæ towards β Piscium.
16	From η Persei towards κ Draconis.
17	From α Persei towards θ Geminorum.
18	From α Persei towards the Pleiades.
19	From γ Cassiopeiæ towards ζ Cephei.
20	From α Persei towards β Aurigæ.
21	From η Piscium towards β Ceti.
22	From α Persei towards Polaris.
23	From δ Persei towards β Tauri.
24	From β Cassiopeiæ towards α Cygni.
25	From β Persei towards α Cygni.
26	From ω Persei towards η Eridani.
27	From ν Persei towards Aldebaran.
28	From α Vulpeculæ towards B Serpentis.
29	From α Andromedæ towards α Pegasi.
30	From β Trianguli towards δ Piscium.
31	From γ Cassiopeiæ towards ξ Draconis.
32	From α Camelopardi towards γ Cassiopeiæ.
33	From α Persei towards β Aurigæ.
34	From β Ursæ Minoris towards γ Boötis.
35	From ζ Draconis towards α Coronæ.
36	From α Lyræ towards α Ophiuchi.
37	From δ Cygni towards γ Ophiuchi.
38	From Polaris towards α Draconis.
39	From α Cygni towards β Cygni.
40	From δ Cassiopeiæ towards α Cephei.
41	From ϵ Cassiopeiæ towards β Cephei.
42	From β Camelopardi towards θ Ursæ Majoris.
43	From γ Cassiopeiæ towards ζ Cephei.
44	From β Cassiopeiæ towards α Cephei.
45	From δ Cephei towards η Cygni.
46	From γ Draconis towards ζ Draconis.
47	From α Persei towards κ Draconis.
48	From Polaris towards α Draconis.
49	From β Pegasi towards ϵ Pegasi.
50	From β Ursæ Minoris towards θ Boötis.
51	From β Pegasi towards ϵ Pegasi.
52	From β Lacertæ towards α Vulpeculæ.
53	From Polaris towards γ Cassiopeiæ.
54	From γ Cephei towards δ Draconis.
55	From α Cephei towards α Lyræ.
56	From α Camelopardi towards α Ursæ Majoris.
57	From α Persei towards γ Pegasi.
58	From α Persei towards Polaris.
59	From γ Cassiopeiæ towards α Cephei.
60	From β Cassiopeiæ towards α Cygni.
61	From ϵ Cassiopeiæ towards α Lyræ.
62	From γ Andromedæ towards χ Pegasi.
63	From β Pegasi towards β Aquarii.

Month and Day, 1902.	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.	No. for Reference.
	h m s				s		°	
August 12	22. 53. 36	B.&T.S.	2	Bluish-white	1·0	Bright	5	1
,,	23. 5. 47	S.	>1	Bluish-white	0·5	Brilliant	15	2
,,	23. 8. 27	B.	>1	White	1·5	Very bright	20	3
,,	23. 20. 22	S:B.&T.S.	>1	Bluish-white	1·0	Very bright	15	4
,,	23. 22. 42	S.&T.S.	4	Blue changing to white	1·0	Very bright	5	5
,,	23. 28. 12	S.	>1	Bluish-white	1·0	Slight	15	6
,,	23. 36. 42	S.	1	Blue	0·5	Bright	15	7
,,	23. 40. 12	B.&T.S.	1	Bluish-white	0·5	Bright	20	8
,,	23. 40. 37	S.&T.S.	1	Bluish-white	0·5	Slight	10	9
,,	23. 41. 44	S.	>1	White	1·5	Brilliant	20	10
,,	23. 48. 17	S.&B.	1	Bluish-white	2·0	Brilliant : long	20	11
,,	23. 48. 32	S.&T.S.	2	Bluish-white	0·5	None	5	12
,,	23. 48. 37	S.	>1	White	1·0	Bright	25	13
August 13	0. 3. 42	S.&B.	>1	Bluish-white	1·5	Brilliant : long	30	14
,,	0. 8. 50	B.&T.S.	1	White	1·0	Bright	15	15
,,	0. 9. 24	S.	>1	Bluish-white	2·0	Brilliant : long	25	16
,,	0. 16. 5	S.	1	Bluish-white	0·5	Brilliant	15	17
,,	0. 17. 52	S.&B.	>1	Bluish-white	0·5	Bright	10	18
,,	0. 18. 14	S.&B.	>1	Bluish-white	0·5	Bright	15	19
,,	0. 19. 41	B.&T.S.	1	Blue	1·0	Brilliant	15	20
,,	0. 21. 10	S.	1	Blue	1·0	Brilliant	15	21
,,	0. 23. 53	T.S.	>1	White	1·5	Brilliant	15	22
,,	0. 25. 27	B.	>1	Bluish-white	1·0	Bright : broken	15	23
,,	0. 27. 1	B.&T.S.	1	Bluish-white	1·0	Bright : broken	20	24
,,	0. 28. 23	B.&T.S.	>1	Blue	1·5	Bright : broken	20	25
,,	1. 1. 21	S.	>1	White	1·5	Brilliant	30	26
,,	1. 2. 26	S.&B.	1	Bluish-white	1·0	Bright	20	27
,,	1. 10. 30	S.&T.S.	1	Bluish-white	1·5	Bright	20	28
,,	1. 13. 49	S.	>1	Bluish-white	2·0	Brilliant	25	29
,,	1. 15. 41	S.&T.S.	>1	Bluish-white	1·0	Brilliant	15	30
,,	1. 22. 20	B.	>1	White	2·0	Brilliant	20	31
,,	1. 30. 55	B.&T.S.	>1	White	1·0	Brilliant	15	32
,,	1. 39. 19	T.S.	>1	Bluish-white	1·0	Bright	20	33
,,	1. 46. 44	S:B.&T.S.	1	Blue	1·5	Brilliant	25	34
,,	1. 49. 10	S.&B.	>1	Bluish-white	2·0	Bright	15	35
,,	1. 50. 52	S.	>1	Bluish-white	0·5	Bright	15	36
,,	1. 51. 7	S.	4	White at first, burst into 3 smaller meteors all of which were bright green	1·0	Brilliant	15	37
,,	1. 53. 23	S.&B.	1	Bluish-white	1·5	Brilliant	20	38
,,	1. 53. 29	B.	2	Blue	1·5	None	20	39
,,	1. 53. 58	B.&T.S.	>1	Bluish-white	1·0	Faint : broken	15	40
,,	1. 55. 25	S.&B.	>1	Bluish-white	1·0	Bright	15	41
,,	1. 58. 51	T.S.	4	Bluish-white	3·0	Brilliant	25	42
,,	1. 59. 42	S.	1	Bluish-white	2·0	Slight	20	43
,,	2. 1. 0	S.&B.	1	White	1·5	Bright	15	44
,,	2. 6. 31	B.	>1	Bluish-white	1·0	Bright	15	45
,,	2. 11. 1	B.	>1	Bluish-white	0·5	None	5	46
,,	2. 14. 50	S.	>1	Bluish-white	1·0	Brilliant	15	47
,,	2. 18. 21	S.&T.S.	4	Blue	0·5	Brilliant	15	48
,,	2. 20. 9	S.&T.S.	>1	White	0·5	Brilliant	20	49
,,	2. 23. 35	S.&B.	>1	White	0·5	Brilliant	10	50
,,	2. 24. 36	T.S.	>1	Bluish-white	1·0	Bright	15	51
,,	2. 29. 22	S.&B.	>1	Blue	1·0	Brilliant	20	52
,,	2. 32. 58	S:B.&T.S.	4	White	1·0	Brilliant	20	53
,,	2. 34. 52	B.	>1	Bluish-white	0·5	Brilliant	15	54
,,	2. 45. 12	S.	>1	Bluish-white	0·5	Brilliant	10	55
,,	2. 44. 50	B.&T.S.	>1	Bluish-white	0·5	Brilliant	10	56
,,	2. 47. 35	S.	>1	White at first, burst into 2 smaller meteors which were both blue	1·0	Brilliant	15	57
,,	2. 49. 30	S.&T.S.	>1	Bluish-white	1·0	Bright	20	58
,,	2. 52. 35	B.&S.	>1	Bluish-white	1·0	Brilliant	30	59

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

No. for Reference.	Path of Meteor in the Sky.
1	From γ Cygni towards λ Lyræ.
2	From α Cephei towards α Lyræ.
3	From β Cygni towards α Ophiuchi.
4	From β Andromedæ towards α Pegasi.
5	From β Camelopardi moved 5° in direction of o Ursæ Majoris, burst into two smaller meteors and disappeared.
6	From β Andromedæ to a point 5° beyond ψ Pegasi.
7	From α Persei towards Capella.
8	From γ Ursæ Minoris towards μ Draconis.
9	From α Andromedæ towards β Pegasi.
10	From α Persei towards Polaris.
11	From α Persei towards Aldebaran.
12	From τ Persei towards ϕ Piscium.
13	From ϵ Cassiopeiæ towards μ Lyræ.
14	From α Persei towards Castor.
15	From β Cassiopeiæ towards ν Cygni.
16	From α Persei towards β Aurigæ.
17	From ϵ Cassiopeiæ to a point a little beyond β Cephei.
18	From ϵ Persei towards τ Tauri.
19	From β Andromedæ towards α Pegasi.
20	From ϵ Persei towards Aldebaran.
21	From Polaris towards ι Draconis.
22	From ι Cephei towards θ Cygni.
23	From ω Persei towards γ Ceti.
24	From ν Andromedæ towards α Pegasi.
25	From α Lyræ towards α Herculis.
26	From β Cassiopeiæ towards α Cygni.
27	From α Persei towards Aldebaran.
28	From Capella towards Castor.
29	From δ Persei towards α Orionis.
30	From α Andromedæ towards ζ Pegasi.
31	From γ Eridani towards μ Eridani.
32	From β Trianguli towards δ Piscium.
33	From α Persei towards Polaris.
34	From χ Draconis towards γ Herculis.
35	From α Cassiopeiæ to a point 5° beyond β Lacertæ.
36	From Capella towards θ Geminorum.
37	From β Trianguli towards ϵ Piscium.
38	From β Persei towards ξ Tauri.
39	From α Persei towards Polaris.
40	From α Andromedæ towards α Pegasi.
41	From α Andromedæ towards α Pegasi.
42	From α Camelopardi towards α Ursæ Majoris.
43	From Polaris towards ι Draconis.
44	From γ Cephei towards ω Draconis.
45	From ι Andromedæ towards μ Cygni.
46	From β Persei towards β Trianguli.
47	From α Lyræ fell vertically below the horizon.
48	From β Pegasi towards ϵ Pegasi.
49	From α Persei towards δ Andromedæ.
50	From α Pegasi towards β Aquarii.
51	From α Persei towards α Arietis.
52	From β Persei towards κ Andromedæ.
53	From δ Persei towards Aldebaran.
54	From β Trianguli towards δ Piscium.
55	From γ Andromedæ towards α Andromedæ.
56	From α Persei towards the Pleiades.
57	From β Persei towards α Cassiopeiæ.
58	From θ Cephei towards α Lyræ.
59	From α Persei towards γ Pegasi.

Month and Day, 1902.	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.	No. for Reference.
	h m s				s		°	
August 13	2. 54. 19	S.	1	Bluish-white	1·0	Bright	20	1
,,	2. 56. 31	S.	>1	Blue	0·5	Brilliant	10	2
,,	3. 9. 53	S.&B.	1	Bluish-white	1·0	Brilliant	10	3
,,	3 13. 1	B.	1	Bluish-white	0·5	Brilliant	10	4
,,	3. 14. 42	T.S.	1	Bluish-white	0·5	Brilliant	10	5
,,	3. 21. 27	B.&T.S.	>1	Bluish-white	1·5	Brilliant	20	6
,,	3. 29. 51	T.S.	1	Bluish-white	0·5	Brilliant	10	7
,,	3. 35. 17	B.	1	Bluish-white	1·0	Brilliant	15	8
,,	3. 38. 30	S.&B.	>1	Blue	1·0	Brilliant	20	9
,,	3. 46. 16	S.	>1	Blue	0·5	Brilliant	10	10
,,	3. 50. 12	S.&B.	>1	Bluish-white	1·5	Brilliant	20	11
,,	3. 58. 54	S.&T.S.	1	Blue	1·5	Brilliant	25	12
,,	4. 1. 10	B.	1	Bluish-white	1·0	Bright : broken	15	13
,,	4. 6. 51	B.&T.S.	>1	Bluish-white	1·0	Bright	20	14
,,	4. 17. 24	S.&B.	>1	Bluish-white	1·5	Faint	20	15
,,	21. 59. 18	S.	>1	White	1·5	Brilliant	35	16
,,	22. 8. 24	S.	>1	White	1·0	Brilliant	30	17
,,	22. 16. 19	S.	>1	Bluish-white	1·0	Brilliant	25	18
,,	22. 18. 30	S.	>1	Bluish-white	0·5	Brilliant	25	19
,,	22. 20. 26	S.	1	White	1·5	Bright	20	20
,,	22. 24. 4	S.	>1	White	1·0	Brilliant	15	21
,,	22. 27. 17	S.	1	Bluish-white	1·0	Slight	15	22
,,	22. 30. 2	S.	>1	Blue	1·0	Bright : broken	25	23
,,	22. 32. 15	S.	>1	Bluish-white	0·5	Brilliant	20	24
,,	22. 35. 11	S.	1	Bluish-white	1·0	Bright : broken	25	25
,,	22. 36. 53	S.	>1	Bluish-white	1·5	Bright : broken	20	26
,,	22. 38. 25	S.	>1	White	1·0	Bright	25	27
,,	22. 40. 13	S.	1	Bluish-white	1·0	Bright : broken	15	28
,,	22. 43. 25	S.	>1	Bluish-white	0·5	Bright : broken	15	29
,,	22. 47. 28	S.	1	Bluish-white	0·5	Bright : short	5	30
,,	22. 51. 17	S.	1	Bluish-white	1·0	Brilliant	20	31
,,	23. 10. 17	S.	>1	White	1·5	Bright : broken	15	32
,,	23. 13. 37	S.	>1	White	1·0	Bright : broken	10	33
,,	23. 17. 33	S.	>1	Blue	0·5	Bright	15	34
,,	23. 22. 25	S.	1	White	1·0	Brilliant : broken	15	35
,,	23. 26. 29	S.	>1	Bluish-white	0·5	Bright : broken	15	36
,,	23. 40. 13	S.	>1	Bluish-white	1·5	Bright : broken	25	37
,,	23. 57. 47	S.	>1	Bluish-white	1·0	Bright : broken	10	38
September 1	20. 50. 15	S.	2	Blue	1·5	Brilliant : long	25	39
November 15	2. 52. 5	P.	1	Bluish	1·5	Slight	15	40
,,	3. 2. 26	P.	1	White	0·5	Slight	15	41
,,	3. 7. 5	P.	1	Reddish	1·0	Long : faint	7	42
November 16	23. 45. 17	S.	>1	Bluish-white	0·5	Bright	14	43
November 17	0. 4. 7	S.&P.	>1	Bluish-white	1·0	Bright	20	44
,,	0. 5. 34	S.	1	Bluish	0·5	Brilliant	10	45
,,	0. 24. 7	P.	1	Bluish-white	1·0	Bright	15	46
,,	0. 37. 42	S.&P.	>1	Bluish-white	0·5	Slight	10	47
,,	0. 46. 8	S.	1	White	1·3	Brilliant	20	48
,,	0. 49. 8	P.	>1	Bluish-white	1·0	Bright	10	49
,,	1. 0. 23	S.	>1	Bluish-white	1·0	Bright : broken	15	50
,,	1. 1. 56	S.	1	Bluish-white	0·6	Bright : broken	12	51
,,	1. 8. 20	S.&P.	>1	White	1·5	Bright	20	52
,,	1. 9. 53	P.	1	Bluish-white	2·0	Bright	20	53

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

No. for Reference.	Path of Meteor in the Sky.
1	From α Persei towards α Cygni.
2	From δ Andromedæ towards α Pegasi.
3	From α Arietis towards β Fornacis.
4	From θ Ceti towards β Ceti.
5	From Pollux towards γ Cancri.
6	From β Aurigæ towards α Lyncis.
7	From β Camelopardali towards β Ursæ Minoris.
8	From β Tauri towards B^2 Monocerotis.
9	From Capella towards Pollux.
10	From ϕ Ursæ Majoris towards ψ Ursæ Majoris.
11	From γ Cassiopeiæ towards α Cygni.
12	From α Arietis towards β Ceti.
13	From α Andromedæ towards β Piscium.
14	From β Aurigæ towards θ Cancri.
15	From α Persei towards Polaris.
16	From ζ Cephei to a point 5° beyond θ Herculis.
17	From β Cephei to a point a little to the South of γ Draconis.
18	From κ Draconis towards α Canum Venaticûm.
19	From β Pegasi to a point 5° to the South of α Aquarii.
20	From ϕ Andromedæ towards β Pegasi.
21	From γ Draconis towards ϵ Herculis.
22	From α Camelopardi towards B^1 Camelopardi.
23	From λ Andromedæ towards ι Pegasi.
24	From α Arietis fell vertically below the horizon.
25	From α Cassiopeiæ towards τ Cygni.
26	From ϕ Andromedæ towards β Pegasi.
27	From γ Cephei towards ζ Draconis.
28	From θ Draconis towards δ Boötis.
29	From Polaris towards θ Boötis.
30	From ι Cephei towards α Cephei.
31	From β Pegasi towards δ Cygni.
32	From γ Cassiopeiæ towards ζ Cephei.
33	From κ Draconis towards ϵ Draconis.
34	From Capella towards θ Geminorum.
35	From γ Cassiopeiæ towards ζ Cephei.
36	From Aldebaran towards τ Orionis.
37	From α Persei towards ι Cephei.
38	From β Trianguli towards ϵ Piscium.
39	From Polaris to a point midway between ϵ and ζ Ursæ Majoris.
40	From μ Leonis to α Cancri.
41	From α Ursæ Majoris to α Draconis.
42	From ψ Ursæ Majoris to β Canum Venaticûm.
43	From Pollux to β Tauri.
44	From β Leonis Minoris towards ζ Ursæ Majoris.
45	From β Aurigæ to a point a little to the South of α Persei.
46	From α Orionis towards γ Eridani.
47	From Aldebaran towards α Ceti.
48	From γ Geminorum towards ϵ Eridani.
49	From Polaris to θ Cephei.
50	From β Ursæ Majoris to ι Draconis.
51	From Castor to a point a little beyond ι Aurigæ.
52	From α Ceti to a point 4° North of β Andromedæ.
53	From Procyon towards κ Orionis.

Month and Day, 1902.	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.	No. for Reference.
	h m s				s		°	
November 17	1. 16. 38	S.&P.	>1	Bluish-white	1·0	None	10	1
,,	1. 16. 46	P.	1	Bluish-white	1·0	Slight	15	2
,,	1. 20. 13	S.	1	Bluish-white	1·5	None	15	3
,,	1. 22. 41	S.	1	Green	1·0	Brilliant	15	4
,,	1. 48. 52	P.	>1	Bluish-white	0·5	Bright	8	5
,,	2. 0. 45	S.&P.	1	White	0·7	Bright	12	6
,,	2. 19. 9	P.	1	White	1·0	Long : bright	10	7
,,	2. 41. 48	P.	>1	Bluish-white	0·3	None	10	8
,,	2. 45. 52	S.&P.	>1	Bluish-white	0·7	Bright	15	9
,,	3. 2. 57	P.	>1	Bluish-white	1·0	Bright	15	10
,,	3. 38. 41	S.&P.	1	White	1·4	Faint	15	11
,,	3. 57. 12	S.	1	Bluish-white	0·3	None	5	12
,,	4. 14. 45	P.	>1	Bluish-white	1·5	Faint	20	13
,,	4. 24. 4	S.&P.	>1	Bluish	1·0	Faint	12	14
,,	23. 56. 15	S.&P.	1	White	1·0	Faint	13	15
November 18	0. 20. 32	S.&P.	>1	Bluish-white	1·5	Faint	12	16
,,	0. 49. 18	S.	>1	Bluish-white	1·0	Bright	15	17
,,	0. 55. 50	P.	1	Bluish-white	0·8	Bright	12	18
,,	1. 11. 15	S.	>1	Bluish-white	1·0	Bright	12	19
,,	1. 28. 57	S.&P.	1	Bluish-white	0·5	Slight	10	20
,,	1. 48. 43	S.	1	White	1·0	Brilliant	20	21
,,	1. 50. 8	S.	1	Bluish-white	1·0	Bright	12	22
,,	1. 54. 10	S.	>1	Bluish-white	1·2	Brilliant	20	23
,,	1. 59. 6	S.	1	Bluish-white	1·0	Bright	10	24
,,	2. 2. 40	S.&P.	>1	Bluish-white	1·4	Bright	15	25
,,	2. 5. 24	P.	1	Bluish-white	1·0	Slight	15	26
,,	2. 5. 54	S.	1	Bluish-white	1·5	None	17	27
,,	2. 5. 57	S.&P.	1	White	1·0	Faint	10	28
,,	2. 22. 58	S.	1	Bluish-white	1·4	Bright	17	29
,,	2. 41. 19	P.	1	Bluish-white	1·2	Bright	15	30
,,	2. 54. 55	S.	>1	White	0·5	Bright	15	31
,,	3. 6. 9	P.	>1	Bluish-white	1·0	Bright	11	32
,,	3. 34. 23	S.&P.	1	Bluish-white	1·5	Bright	20	33
,,	3. 52. 43	S.&P.	>1	Bluish-white	0·5	Bright	13	34
,,	3. 59. 11	S.	1	Bluish-white	2·0	Bright	28	35
,,	4. 4. 37	P.	>1	White	0·3	Faint	5	36
,,	4. 18. 10	P.	>1	White	0·8	Faint	10	37
December 11	19. 5. 4	S.	>1	Bluish-white	2·5	Bright	25	38
,,	20. 0. 23	S.	2	White	3·8	Brilliant: broken	60	39

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

No. for Reference.	Path of Meteor in the Sky.
1	From Pollux towards ν Tauri.
2	From λ Orionis towards ϵ Eridani.
3	From α Orionis to ϵ Arietis.
4	From γ Andromedæ to δ Andromedæ.
5	From Capella to γ Andromedæ.
6	From η Ursæ Majoris to γ Ursæ Majoris.
7	From μ Geminorum to γ Tauri.
8	From ι Cancri to β Aurigæ.
9	From ι Cancri to β Aurigæ.
10	From α Lyncis to o Ursæ Majoris.
11	From θ Ursæ Majoris to Polaris.
12	From ϵ Leonis towards κ Ursæ Majoris.
13	From α Leonis to a point a little beyond κ Aurigæ.
14	From β Persei to δ Andromedæ.
15	From β Aurigæ to δ Persei.
16	From γ Canis Minoris towards ϵ Orionis.
17	From β Tauri to a point about 2° beyond ζ Arietis.
18	From β Ursæ Majoris towards β Ursæ Minoris.
19	From α Lyncis to a point a little to the West of o Ursæ Majoris.
20	From δ Geminorum towards ζ Tauri.
21	From γ Ursæ Majoris to α Draconis.
22	From Capella towards β Persei.
23	From κ Ursæ Majoris towards Polaris.
24	From γ Leonis towards ν Ursæ Majoris.
25	From Regulus towards ϵ Hydræ.
26	From β Camelopardi towards γ Cassiopeiæ.
27	From Polaris towards θ Cephei.
28	From Polaris towards β Cephei.
29	From ζ Geminorum to α Ceti.
30	From θ Ursæ Majoris towards α Draconis.
31	From Regulus towards Pollux.
32	From ζ Leonis to ψ Ursæ Majoris.
33	From α Orionis towards η Eridani.
34	From γ Geminorum to μ Tauri.
35	From Regulus to β Aurigæ.
36	From γ Cancri to κ Geminorum.
37	From θ Aurigæ to ζ Persei.
38	From a point 3° North of Polaris to ξ Draconis.
39	From α Cassiopeiæ towards β Lyræ.