





# RESULTS

OF THE

# MAGNETICAL AND METEOROLOGICAL OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1906:

UNDER THE DIRECTION OF

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ASTRONOMER ROYAL.

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ERRATA.

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1905.

INTRODUCTION.

Page xxxvi, last line, for 27.2, read 272, and for 14.9, read 149.  
Page lviii, line 30, for 1904, read 1905.

RESULTS.

age (xiii) Table XVI.—Declination West.	November.	$\alpha'$ , for 235.25, read 235.38.
		$\beta'$ , for 9.19, read 9.46.
		$\gamma'$ , for 228.25, read 229.5.
		$\delta'$ , for 58.7, read 59.0.
Horizontal Force.	November.	$\alpha'$ , for 78.27, read 78.40.
		$\beta'$ , for 280.30, read 280.57.
		$\gamma'$ , for 143.57, read 144.37.
		$\delta'$ , for 13.51, read 14.44.
Vertical Force.	November.	$\alpha'$ , for 168.17, read 168.30.
		$\beta'$ , for 252.22, read 252.49.
		$\gamma'$ , for 103.33, read 104.13.
		$\delta'$ , for 272.1, read 272.54.

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ROYAL OBSERVATORY, GREENWICH.

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RESULTS

OF

MAGNETICAL AND METEOROLOGICAL  
OBSERVATIONS.

---

1906.



GREENWICH MAGNETICAL AND METEOROLOGICAL  
OBSERVATIONS,  
1906.

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INTRODUCTION.

§ 1. *Personal Establishment and Arrangements.*

During the year 1906 the personal establishment in the Magnetical and Meteorological Department of the Royal Observatory consisted of Walter William Bryant, Superintendent, aided by one Established Computer, David J. R. Edney, and four Computers. The Computers employed during the year were : — Albert Edward Showell, Wilfred C. Parkinson, Henry George' Scott Barrett, Arnold F. Dauncey, and Edward Kirby.

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

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

The Magnetical and Meteorological Observatory was erected in the year 1838. Its northern face is distant about 170 feet south-south-east from the nearest point of the South-East Dome and about 20 feet south of the new Altazimuth Pavilion. On its east stands the New Library (now used as a store-room), erected at the end of the year 1881, in the construction of which non-magnetic bricks were used, and every care was taken to exclude iron. The Magnetical and Meteorological Observatory

is based on concrete and built of wood, united for the most part by pegs of bamboo; no iron was intentionally admitted in its construction, or in subsequent alterations. Its form is that of a cross, the arms of the cross being nearly in the direction of the cardinal magnetic points as they were in 1838. The northern arm is longer than the others, and is separated from them by a partition, and used as a Computing Room; the stove which warms this room, and its flue, are of copper. The remaining portion, consisting of the eastern, southern, and western arms, is known as the Upper Magnet Room. The upper declination magnet and its theodolite, for determination of absolute declination, were formerly placed in the southern arm, an opening in the roof allowing circumpolar stars to be observed by the theodolite, for determination of its reading for the astronomical meridian. Both the magnet and its theodolite were supported on piers built from the ground. In the eastern arm is placed the Thomson electrometer for photographic record of the variations of atmospheric electricity; its water cistern rests on four glass insulators supported by a platform fixed to the western side of the southern arm, near the ceiling. The Standard barometer is suspended near the junction of the southern and western arms. The sidereal clock, Grimalde and Johnson, no longer in use since the removal of the upper declination magnet and its theodolite, is fixed at the junction of the eastern and southern arms, and there is in addition a mean solar chronometer, McCabe No. 649, for general use.

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

placed near the southern wall of the eastern arm. A mean solar clock of peculiar construction for interruption of the photographic traces at each hour is fixed on the north side of the central pier. Another mean solar clock for general use is attached to the western wall of the southern arm. For better ascertaining the variations of temperature of the Basement, a Richard metallic thermograph was added in February 1886. It is placed on the pier carrying the horizontal force magnet, and gives a continuous register of temperature on a scale of  $5^{\circ}$  to 1 inch, the scale for time being 24 hours to  $5\frac{1}{2}$  inches. On the northern wall, near the photographic barometer, is fixed the Sidereal Standard clock of the Astronomical Observatory, Dent 1906, communicating with the chronograph and with clocks of the Astronomical Department by means of underground wires. This clock is placed in the Magnet Basement because of its nearly uniform temperature.

The Basement is warmed, when necessary, by a gas stove (of copper), and ventilated by means of a large copper tube nearly two feet in diameter, which receives the flues from the stove and all gas-lights, and passes through the Upper Magnet Room to a revolving cowl above the roof. Another gas stove provided with the object of maintaining a higher temperature during the winter, and so rendering the Basement temperature more uniform throughout the year, is placed near the middle of the western wall of the western arm. Each of the arms of the Basement has a well window facing the south, but these wells are usually closely stopped up with bags packed with straw or jute.

A platform erected above the roof of the Magnet House is used for the observation of meteors. A rain gauge is placed on a table on this platform, and there are also thermometers (placed in a louvre-boarded shed or screen, with free circulation of air) for observation of the temperature of the air in an exposed situation at a height of 20 feet above the ground. A wooden stand on which the nephoscope can be mounted for occasional observations was placed there in May 1904.

To the south of the Magnet House, in what is known as the Magnet Ground, is an open shed, on the west side of the earth thermometers, consisting principally of a roof supported on four posts, under which is placed the photographic dry-bulb and wet-bulb thermometer apparatus. On the roof of this shed were fixed an ozone box and a rain gauge, of which the former was removed on October 22, and mounted on the Stevenson screen in the Magnetic Pavilion enclosure. About 20 feet south of the southern arm of the Magnet House are placed the earth thermometers, the upper portions of which, projecting above the ground, are protected by a small wooden hut,

and at about the same distance south east of the southern arm of the Magnet House is situated a Stevenson screen containing dry-bulb, wet-bulb, and maximum and minimum thermometers, and a few feet further east there were two rain gauges, both of which were removed at the end of February, being replaced by a single new one.

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

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

The Magnetic Pavilion, in an enclosure in Greenwich Park, at a distance of about 350 yards from the Observatory, on the East side, was completed at the end of 1898 September, and the instruments for absolute determinations of magnetic declination, dip and horizontal force are installed there. The greatest care was taken to exclude all iron in building the Magnetic Pavilion, and the site was selected so that there should be no suspicion of magnetic disturbance from iron in the neighbourhood. The revolving stand carrying the thermometers used for ordinary eye observations, the thermometers for solar and terrestrial radiation, and the standard rain gauge, were moved to an open position in the Magnetic Pavilion enclosure at the beginning of 1899, 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 1906.*

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

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

### § 4. *Magnetic Instruments.*

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



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

The theodolite, by which the position of the declination magnet is observed, is by Troughton and Simms. It is planted about 2 feet south of the magnet. The radius of its horizontal circle is 8.3 inches, and the circle is divided to 5', and read, by three verniers, to 5". The theodolite has three foot-screws, which rest in brass channels let into the capping stone cemented to the concrete pier which rises from the ground. The length of the telescope is 21 inches, and the aperture of its object-glass 2 inches: it is carried by a horizontal transit-axis  $10\frac{1}{2}$  inches long, supported on Y's carried by the central vertical axis of the theodolite. The eye-piece has one fixed horizontal wire and one vertical wire moved by a micrometer-screw, the field of view in the observation of stars being illuminated through the pivot of the transit-axis on that side of the telescope which carries the micrometer-head. The value of one division of the level is  $1''15$ . By opening the North door of the Magnetic Pavilion observations of circumpolar stars can be made for determination of the reading of the horizontal circle of the theodolite corresponding to the astronomical meridian. For these observations a Sidereal Chronometer, Parkinson and Frodsham, No. 3719, is kept in the Pavilion.

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

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

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

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

The error of collimation of the magnet collimator is found by observing the position of the magnet, first with the collimator in the usual position with its scale direct, then with the collimator with its scale reversed, repeating the observations several times. This value was found from twenty-six determinations during the first six months of the year to be  $+1'.12''4$ , and from twenty-two determinations during the remainder of the year to be  $+0'.25''5$ .

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  $90^\circ$ , thus giving the suspension thread that amount of azimuthal twist, and observing, with the theodolite, the change in the position of the magnet thereby produced, from which is derived the ratio of the couple due to torsion of the thread to the couple due to the earth's horizontal magnetic force. This ratio for the old thread was found from the mean of nineteen determinations to be  $\frac{1}{678}$ . On May 14 the thread gave way and was replaced by a new one, for which the ratio was found from the mean of the first seventeen determinations to be  $\frac{1}{748}$ . After October 1 the ratio was found from the mean of eight determinations to be  $\frac{1}{1000}$ . On November 26 the thread broke and for the new one the ratio was found from the mean of four determinations to be  $\frac{1}{959}$ .

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 11 a.m. On each sheet a reference line is also photographed, the arrangements for which will be more particularly described in each special case. All parts of the apparatus and all parts of the paths of light are protected, as found necessary, by wood or zinc casings or tubes, blackened on the inside, in order to prevent stray light from reaching the photographic paper.

In June 1882 the photographic process employed for many years was discarded, and a dry paper process introduced, the argentic-gelatino-bromide paper, as prepared by Messrs. Morgan and Kidd of Richmond (Surrey), being used with ferrous oxalate development until June 1904, when amidol development was substituted. The greater sensitiveness of this paper permits diminution of the effective surface of the magnet mirrors, and allows also the use of smaller gas flames. In the case of the vertical force magnet the old and comparatively heavy mirror has been replaced by a small and light mirror with manifest advantage, as will be seen in the description of the vertical force magnet. The new paper acts equally well at all seasons of the year, and any loss of register on account of photographic failure is now extremely rare.

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

The light used for obtaining the photographic record is that given by a flame of coal gas. A vertical slit, about  $0^{\text{m}}.3$  long and  $0^{\text{m}}.01$  wide, placed close to the light, is firmly supported on the pier which carries the magnet. It stands slightly out of the straight line joining the mirror of the magnet and the registering cylinder, and

its distance from the mirror is about 25 inches. The distance of the axis of the registering cylinder from the mirror is 134·4 inches. Immediately above the cylinder, and parallel to its axis, are placed two long reflecting prisms (each 11 inches in length), extending from end to end of the cylinder, and facing opposite ways towards the mirrors carried by the declination and horizontal force magnets respectively. The front surface of each prism is convex, being a portion of a horizontal cylinder. The light of the declination lamp, after passing through the vertical slit, falls on the concave mirror, and is thence reflected as a converging beam to form an image of the slit on the convex surface of the reflecting prism, by the action of which it is reflected downwards to the paper on the cylinder as a small spot of light. The concave mirror can be so adjusted in azimuth on the magnet, that the spot shall fall, not at the centre of the cylinder, but rather towards its western side, in order that the declination trace shall not interfere with that of horizontal force, which is made to fall towards the eastern side of the cylinder. The special advantage of the arrangement here described is that the registers of both magnets are made at the same part of the circumference of the cylinder, a line joining the two spots being parallel to its axis, so that when the traces on the paper are developed, the parts of the two registers which appear in juxtaposition correspond to the same Greenwich time.

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

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

The usual hour of changing the photographic sheet is 11 a.m., but on Sundays, and occasionally on other days, this rule 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  $1^\circ$  of the mirror produces a movement of  $2^\circ$  in the reflected ray. From this it is found that  $1^\circ$  of movement of the mirror, representing a change of  $1^\circ$  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<sup>ft</sup> 6<sup>in</sup>. The distance between the branches of the skein, where they pass over the upper pulleys, is 1<sup>in</sup>·14; at the lower pulleys the distance between the branches is 0<sup>in</sup>·80. The two branches are not intended to hang in one plane, but are to be so twisted that their torsion will maintain the magnet in a direction very nearly east and west magnetic, the marked end being west. In this state an increase of horizontal magnetic force draws the marked end of the magnet towards the north, whilst a diminution of horizontal force allows the marked end to recede towards the south under the influence of torsion. An oval copper bar, exactly similar to that used with the lower declination magnet, is applied also to the horizontal force magnet, for the purpose of diminishing the small accidental vibrations.

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

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

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

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

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

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



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

On 1905 December 29 the following observations were made for determination of the angle of torsion:—

1905. 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.
Dec. 29	146° 0'	div. 47·08	div.	<sup>s</sup> 20·97	230° 30'	div. 46·48	div.	<sup>s</sup> 20·44
	147 0	54·40	7·32	21·01	231 30	54·40	7·92	20·69
	148 0	62·45	8·05	20·86	232 30	62·45	8·05	20·73

From these observations it appeared that the times of vibration and scale-readings were sensibly the same when the torsion-circle read 148°.40', marked end west, and 233°.10', marked end east, the difference being 84°.30'. Half this difference, or 42°.15', 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°.14' derived from the determinations made on 1904 December 30, 1905 December 29 and 1907 January 1.

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<sup>div</sup>·85 of the fixed scale is exactly 12 inches, and the distance of the centre of the face of the plane mirror from the scale, 90·84 inches; consequently, the angle at the mirror subtended by one division of the scale is 14'.43''·2, or for change of one division of scale-reading the magnet is turned through an angle of 7'.21''·6.

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

reading = cotan angle of torsion  $\times$  value of one division in terms of radius. The change of horizontal force corresponding to change of one division of scale-reading was thus found to be 0.002358; 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<sup>h</sup> 30<sup>m</sup>, 12<sup>h</sup> 30<sup>m</sup>, 15<sup>h</sup> 30<sup>m</sup>, and 20<sup>h</sup> 30<sup>m</sup> 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<sup>h</sup>, 10<sup>h</sup>, 11<sup>h</sup>, 12<sup>h</sup>, 13<sup>h</sup>, 14<sup>h</sup>, 15<sup>h</sup>, 16<sup>h</sup>, and 21<sup>h</sup> Greenwich civil time. An index correction of  $-0^{\circ}.3$  has been applied to all readings.

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

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

of the ray of light through the prism, is (as for declination) practically the same as the horizontal distance of the centre of the cylinder from the mirror, or 136·8 inches. But, because of the reflexion at the concave mirror, the double of this measure, or 273·6 inches, is the distance that determines the extent of motion on the cylinder of the spot of light, which, in inches, for a change of 0·01 part of the whole horizontal force, will therefore be  $273·6 \times \tan \text{angle of torsion} \times 0·01$ . Taking for angle of torsion  $42^\circ·14'$ , the movement of the spot of light on the cylinder for a change of 0·01 of horizontal force is found to be 2·484 inches; and with this unit the cardboard scale for measure of the ordinates was prepared. The ordinates being measured for the times at which eye observations were made, combination of the measured ordinates with the observed scale-readings converted into parts of the whole horizontal force, gives an apparent value of the base line for each observation. These being divided into groups, mean base line values are adopted, written on the sheets, and new base lines laid down, from which the hourly ordinates (see page *xxix*) are measured, exactly in the same way as described for declination.

The indications of horizontal force are in a slight degree affected by the small changes of temperature to which the Magnet Basement is subject. The temperature coefficient of the magnet was determined by artificially heating the Magnet Basement to different temperatures, and observing the change of position of the magnet thereby produced. This process seems preferable to others in which was observed the effect which the magnet, when enclosed within a copper trough or box, and artificially heated by hot water or hot air to different temperatures, produced on another suspended magnet, since the result obtained includes the entire effect of temperature upon all the various parts of the mounting of the magnet, as well as on the magnet itself. Referring to previous volumes for details, it is sufficient here to state that, from a series of experiments made between January 3 and February 21 of the year 1868, on the principle mentioned, in temperatures ranging from  $48^\circ·2$  to  $61^\circ·5$ , it appeared that when the marked end of the horizontal force magnet was to the west (its ordinary position), a change of  $1^\circ$  of temperature (Fahrenheit) produced an apparent change of ·000174 of the whole horizontal force, a smaller number of observations made with the marked end of the magnet east, in temperatures ranging from  $49^\circ·0$  to  $60^\circ·9$ , indicating that a change of  $1^\circ$  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  $1^\circ$  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  $1^\circ$  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  $32^{\circ}$  (expressed in terms of the horizontal force) is  $(t - 32) \times .0000936 + (t - 32)^2 \times .00002074$ , in which  $t$  is the temperature in degrees Fahrenheit. The decrease of horizontal force for an increase of  $1^{\circ}$  of temperature would thus be  $.00021$  at  $60^{\circ}$ ,  $.00023$  at  $65^{\circ}$ , and  $.00025$  at  $70^{\circ}$ .

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

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

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

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

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

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

The time of vibration of the magnet in the vertical plane is observed usually about once in each week. From 54 observations made during the year this was found to be  $16^{\circ}367$ .

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 1905 December 29 gave for the time of vibration of the magnet in the horizontal plane  $16^{\circ}435$ . This value has been used throughout for the year 1906.

The length of the normal to the fixed vertical scale that meets the face of the plane mirror is 186·07 inches, and  $30^{\text{div}}85$  of the scale correspond to 12 inches. Consequently the angle which one division of the scale subtends, as seen from the mirror, is  $7'.11''\cdot2$ , 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  $52\frac{3}{4}^{\circ}$ . Therefore, dividing the result just obtained,  $3'.35''\cdot6$ , by  $\sin 52\frac{3}{4}^{\circ}$ , the angular motion of the magnet corresponding to a change of one division of scale-reading is found to be  $4'.30''\cdot9$ .

The variation of vertical force, in terms of the whole vertical force, producing angular motion of the magnet corresponding to a change of one division of scale-reading =  $\cotan \text{ dip} \times \left(\frac{T'}{T}\right)^2 \times \text{value of one division in terms of radius, in which } T'$  is the time of vibration of the magnet in the horizontal plane, and  $T$  that in the vertical plane. Assuming  $T' = 16^s\cdot435$ ,  $T = 16^s\cdot367$ , and  $\text{dip} = 66^{\circ}.55'.17''$ , the change of vertical force corresponding to change of one division of scale-reading was found to be  $0\cdot0005643$ , and this value has been used during the year 1906 for conversion of the observed scale-readings into parts of the whole vertical force.

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

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

The photographic register of the movements of the vertical force magnet is made on a cylinder of the same size as that used for declination and horizontal force, driven also by chronometer movement. The cylinder is here placed vertical instead of horizontal, and the variations of the barometer are also registered on it. The slit is horizontal, and other arrangements are generally similar to those already described for declination and horizontal force. The concave mirror carried by the magnet is 1 inch in diameter, and the slit is distant from it about 22 inches, being placed a little out of the straight line joining the mirror and the registering cylinder. There is a slight deviation in the further optical arrangements. Instead of falling on a reflecting prism (as for declination and horizontal force), the converging horizontal beam from the concave mirror falls on a system of plano-convex cylindrical lenses, placed in front of the cylinder, with their axes parallel to that of the cylinder. The

trace is made on the western side of the cylinder, the position of the magnet being so adjusted, that the spot of light shall fall on the lower part of the sheet to avoid interference with the barometer trace. A base line is photographed, and the record is interrupted at each hour by the clock, and occasionally by the observer, for establishment of time scale, in the same way as for the other magnets. The length of the time scale is the same as that for the other magnetic registers.

The scale for measure of ordinates of the photographic curve is determined as follows:—The distance from the concave mirror of the magnet to the surface of the registering cylinder is 100·2 inches. But the double of this measure, or 200·4 inches, is the distance that determines the extent of motion on the cylinder of the spot of light, which, in inches, for a change of 0·01 part of the whole vertical force, will therefore be  $= 200·4 \times \tan \text{dip} \times \left(\frac{T}{T'}\right)^2 \times 0·01$ . 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 4·664 inches, and with this unit the scale for measure of the ordinates was constructed for use during the year. Base line values were then determined and written on the sheets, and new base lines laid down, from which the hourly ordinates (see page *xxix*) were measured, exactly in the same way as was described for declination.

In regard to the temperature-correction of the vertical force magnet, it is only necessary here to say that, according to a series of experiments made 1882 October 17 to 23, in a similar manner to those for the horizontal force magnet (page *xviii*), and in temperatures ranging from 59°·3 to 64°·9, it appeared that an increase of 1° of temperature (Fahrenheit) produced an apparent increase of 0·00020 of vertical force, a value which succeeding experiments have closely confirmed. The value of the coefficient is thus much less than was found in the old state of the magnet with the large mirror, although still not following the ordinary law of increase of temperature producing loss of magnetic power. Further observations made in the years 1885 and 1886, of which particulars are given at the end of the Introduction for 1886, showed that through the range of temperature to which the magnet is usually exposed the increase of vertical force for increase of 1° of temperature is uniformly 0·000212, no term depending on the square of the temperature being here necessary, as in the case of horizontal force.

DIP INSTRUMENT.—The instrument with which the observations of magnetic dip are made is that which is known as Airy's instrument. It was constructed by Messrs. Troughton and Simms, and is mounted in the Magnetic Pavilion on a slate slab supported by a braced wooden stand built up from the ground independently

of the floor. The plan of the instrument was arranged by Sir G. B. Airy so that the points of the needles should be viewed by microscopes, and, if necessary, observed whilst the needles were in a state of vibration; that there should be power of employing needles of different lengths; and that the field of view of each microscope should be illuminated from the side opposite to the observer, in such a way that the needle point should form a dark image in the bright field.

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

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

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

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



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

The needles in regular use in 1906 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 =  $\mu = 0\cdot00015587$ .

The correction for decrease of the magnetic moment of the deflecting magnet required in order to reduce to the temperature  $35^\circ$  Fahrenheit =  $c = 0\cdot00013126(t - 35) + 0\cdot000000259(t - 35)^2$ ;  $t$  representing the temperature (in degrees Fahrenheit) at which the observation is made.

Moment of inertia of the deflecting magnet =  $K$ . At temperature  $30^\circ$ ,  $\log. K = 0\cdot66643$ ; at temperature  $90^\circ$ ,  $\log. K = 0\cdot66679$ .

The distance on the deflexion rod from  $1^{\text{ft}}\cdot0$  east to  $1^{\text{ft}}\cdot0$  west of the engraved scale, at temperature  $62^\circ$ , is too long by  $0\cdot0034$  inch, and the distance from  $1^{\text{ft}}\cdot3$  east to  $1^{\text{ft}}\cdot3$  west is too long by  $0\cdot0053$  inch. The coefficient of expansion of the scale for  $1^\circ$  is  $\cdot00001$ .

The adopted value of  $K$  was confirmed in the year 1878 by a new and entirely independent determination made at the Royal Observatory, giving  $\log. K$  at temperature  $30^\circ = 0\cdot66727$ .

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  $1\cdot0$  and  $1\cdot3$  foot),

$u_1, u_2$  the observed angles of deflexion,

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

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

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

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

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

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

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

In calculating the value of  $P$  as well as the values of the four factors within brackets, the distances  $r_1$  and  $r_2$  are taken as being equal to 1.0 ft. and 1.3 ft. respectively. The expression for  $P$  is not convenient for logarithmic computation, and, in practice, its value for each observation has, since the year 1877, been calculated from the expression  $\frac{\text{Log. } A_1 - \text{Log. } A_2}{\text{modulus}} \times \frac{r_1^2 \times r_2^2}{r_2^2 - r_1^2} = (\text{Log. } A_1 - \text{Log. } A_2) \times 5.64$ .

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

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

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

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

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

From the combination of the values of  $\frac{m}{X}$  and  $mX$ ,  $m$  and  $X$  are immediately found. The computation is made with reference to English measure, taking as units of length and weight the foot and grain, but it is desirable to express  $X$  also in metric measure. If the English foot be supposed equal to  $a$  times the millimètre, and the grain equal to

$\beta^1$  times the milligramme, then, for reduction to metric measure,  $\frac{m}{X}$  and  $mX$  must be multiplied by  $\alpha^3$  and  $\alpha^2\beta$  respectively, or  $X$  must be multiplied by  $\sqrt{\frac{\beta^1}{\alpha}}$ . Taking the mètre as equal to 39.37079 inches, and the gramme as equal to 15.432349 grains, the factor by which  $X$  is to be multiplied in order to obtain  $X$  in metric (millimètre-milligramme-second) measure is  $0.46108 = \frac{1}{2.1689}$ . The values of  $X$  in metric measure thus derived from those in English measure are given in the proper table. Values of  $X$  in terms of the centimètre and gramme, known as the C.G.S. unit (centimètre-gramme-second unit), are readily obtained by dividing those referred to the millimètre and milligramme by 10.

EARTH CURRENT APPARATUS.—For observation of the spontaneous galvanic currents, which, in some measure, are almost always discoverable in the earth, and which are occasionally very powerful, two insulated wires having earth connexions at Angerstein Wharf (on the bank of the River Thames near Charlton) and Lady Well for one circuit, and at the Morden College end of the Blackheath Tunnel and the North Kent East Junction of the South-Eastern Railway for the other circuit, have been employed. The connecting wires, which are special and used for no other purpose, pass from the Royal Observatory to the Greenwich Station of the South-Eastern Railway, and thence, by kind permission of the Directors of the South-Eastern Railway Company, along the lines of the Railway to the respective earths, in each case a copper plate. The direct distance between the earth plates of the Angerstein Wharf—Lady Well circuit is 3 miles, and the azimuth of the line, reckoning from magnetic north towards east,  $49^\circ$ ; 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,  $47^\circ$ . 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 156 turns of No. 29 copper wire, or the double coil of each instrument consists of 300 turns of wire, the resistance, as found by direct measurement, being 7.3 ohms. For registration of the larger earth currents, a portion only of the current is allowed to pass through the galvanometer, while the greater part flows through a shunt, consisting of a short coil of fine copper wire, the resistance of which is 1.33 ohms. The amplitude of the movement, having regard to the diminution of resistance in the circuit due to the shunt, is by this reduced in the ratio of 6.3 to 1 nearly in both circuits. On a few days in each month in former years registers on a large scale, for determination of the small diurnal

inequality in earth currents, were obtained by removing the shunts, but no discussion of these registers has been made, on account of the difficulty of eliminating the effect of certain small dislocations of the Angerstein Wharf—Lady Well register, which occur usually shortly after sunset and before sunrise. It is suspected that these are due to electric lighting in the neighbourhood of the Angerstein Wharf earth plate. The galvanometers are placed on opposite sides of the registering cylinder, which is horizontal. One galvanometer stands towards one end of the cylinder, and the other towards the other end, and each carries, on a light stalk extending downwards from its magnet, a small plane mirror. Immediately above the cylinder are placed two long reflecting prisms, which, except that they are each but half the length of the cylinder, and are placed end to end, are generally similar to those used for magnetic declination and horizontal force, the front convex surfaces facing opposite ways, each towards the mirror of its respective galvanometer. In each case the light of a gas lamp, passing through a vertical slit and a cylindrical lens having its axis vertical, falls upon the galvanometer mirror, which reflects the converging beam to the convex surface of the reflecting prism, by whose action it is made to form on the paper on the cylinder a small spot of light; thus all the azimuthal motions of the galvanometer magnet are registered. The extent of trace for each galvanometer is thus confined to half the length of the cylinder, which is of the same size as those used for the magnetic registers. The arrangements for turning the cylinder, automatically determining the time scale, and forming a base line, are similar to those which have been before described. When the traces on the paper are developed, the parts of the registers which appear in juxtaposition correspond, as for declination and horizontal force, to the same Greenwich time, and the scale of time is of the same length as for the magnetic registers.

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

§ 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 1906 which are classed as days of great disturbance. Days of lesser disturbance are January 31–February 1; February 24–25, 25–26; July 11–12; August 7–8; September 22–23; November 21–22; December 22–23. 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<sup>h</sup> to 23<sup>h</sup>), 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 were 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 3–4 and October 1–7, and in Tables III. to VI. for horizontal force June 3–4.

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

The temperature of the horizontal and vertical force magnets was maintained so nearly uniform through each day, that the determination of the diurnal inequalities of horizontal and vertical force should possess great exactitude. By means of the additional stove placed in the western arm of the Basement, as mentioned on page *v*, the temperature of the Basement has also been kept nearly constant throughout the year, the endeavour being to keep the temperature as near to 67° as possible. In years preceding 1883 the results for horizontal and vertical force were given uncorrected for temperature, leaving the correction to be applied when the results for series of years are collected for discussion; but from the beginning of the year 1883 it has been considered desirable to add also, in Tables III., V., VII., and IX., results corrected for temperature, in order to render them more immediately available. In Tables XI. and XII., only results corrected for temperature are given. The corrected mean daily and mean hourly values of horizontal force given in Tables III. and V. respectively are obtained by applying to the uncorrected values the correction  $(t-32) \times .0000936 + (t-32)^2 \times .000002074$  (page *xix*), where  $t$  is the temperature in degrees Fahrenheit; and to those of vertical force, Tables VII. and IX., the correction  $-(t-32) \times .000212$  (page *xxii*). The corrections applied are founded on the daily and hourly values of temperature given in Tables IV., VI., VIII., and X.

In regard to the formation of the tables of temperature, the hourly readings of the Richard Thermograph were entered into a form having double arguments as for the magnets, the mean hourly values deduced therefrom giving for each month the variation through the day, and the mean daily values the variation through the month. To adapt these to represent the temperature within the horizontal and vertical force magnet boxes respectively, the monthly means of the thermograph-readings at 9<sup>h</sup>, 10<sup>h</sup>, 11<sup>h</sup>, 12<sup>h</sup>, 13<sup>h</sup>, 14<sup>h</sup>, 15<sup>h</sup>, 16<sup>h</sup>, and 21<sup>h</sup> 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 

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 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 July 5, which should be taken as 1014 for comparison with the adjacent values, and similarly in other cases. The excess of the value of  $c$  above that of  $u$  on any day (supposing  $c$ , when the smaller value, to be increased by 1000) shows the correction for temperature that has been actually applied. In Tables II., V., IX., and XII. the separate hourly values of the different elements have been simply diminished by the smallest hourly value.

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

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

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

$$\text{H.F. in metrical measure} \times \sin 1' = 1.8524 \times \sin 1' = 0.0005388.$$

For variation of horizontal force, the factor is

$$\text{H.F. in metrical measure} = 1.8524,$$

and for variation of vertical force

$$\begin{aligned} \text{V.F. in metrical measure} &= \text{H.F. in metrical measure} \times \tan \text{dip}, \\ &= 1.8524 \times \tan 66^\circ.55'.17'' = 4.3474. \end{aligned}$$

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<sup>h</sup> (midnight), 1 that at 1<sup>h</sup>, and so on.

$$\begin{aligned}
 m &= \frac{1}{24}(0+1+2 \dots \dots 22+23). \\
 12 a_1 &= 0-12 + \{ (1+23) - (11+13) \} \cos 15^\circ + \{ (2+22) - (10+14) \} \cos 30^\circ \\
 &\quad + \{ (3+21) - (9+15) \} \cos 45^\circ + \{ (4+20) - (8+16) \} \cos 60^\circ \\
 &\quad + \{ (5+19) - (7+17) \} \cos 75^\circ. \\
 12 b_1 &= 6-18 + \{ (5+7) - (17+19) \} \sin 75^\circ + \{ (4+8) - (16+20) \} \sin 60^\circ \\
 &\quad + \{ (3+9) - (15+21) \} \sin 45^\circ + \{ (2+10) - (14+22) \} \sin 30^\circ \\
 &\quad + \{ (1+11) - (13+23) \} \sin 15^\circ. \\
 12 a_2 &= (0+12) - (6+18) + \{ (1+11+13+23) - (5+7+17+19) \} \cos 30^\circ \\
 &\quad + \{ (2+10+14+22) - (4+8+16+20) \} \cos 60^\circ. \\
 12 b_2 &= (3+15) - (9+21) + \{ (2+4+14+16) - (8+10+20+22) \} \sin 60^\circ \\
 &\quad + \{ (1+5+13+17) - (7+11+19+23) \} \sin 30^\circ. \\
 12 a_3 &= (0+8+16) - (4+12+20) + \{ (1+7+9+15+17+23) - (3+5+11+13+19+21) \} \cos 45^\circ. \\
 12 b_3 &= (2+10+18) - (6+14+22) + \{ (1+3+9+11+17+19) - (5+7+13+15+21+23) \} \sin 45^\circ. \\
 12 a_4 &= (0+6+12+18) - (3+9+15+21) \\
 &\quad + \{ (1+5+7+11+13+17+19+23) - (2+4+8+10+14+16+20+22) \} \cos 60^\circ. \\
 12 b_4 &= \{ (1+2+7+8+13+14+19+20) - (4+5+10+11+16+17+22+23) \} \sin 60^\circ.
 \end{aligned}$$

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

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

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

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

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

a mean value of  $h$  for the month being employed.

The values of  $\alpha_5$  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:—

1906.	$\alpha_5.$	$b_5.$
Declination .....	-0.06	-0.02
Horizontal Force .....	+0.1	-0.6
Vertical Force .....	+0.8	-0.7

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 1906.	Declination.	Horizontal Force.	Vertical Force.
Sums of Squares of Observed Values (Table XII.) .....	302'03	351688·2	18858·7
Sums of Squares of Residuals after the introduction of $m$ .....	118·82	61134·1	2893·6
"                    " $a_1$ and $b_1$	46·01	14671·4	1763·5
"                    " $a_2$ and $b_2$	8·73	2574·0	289·1
"                    " $a_3$ and $b_3$	1·29	535·4	56·0
"                    " $a_4$ and $b_4$	0·07	17·6	16·3
"                    " $a_5$ and $b_5$	0·03	12·8	3·6

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

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

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

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

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

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

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

The plates are preceded by a brief description of *all* other significant magnetic motions (superposed on the ordinary diurnal movement) recorded throughout the year. These, in combination with the plates, give very complete information on magnetic disturbances during the year 1906, 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 (xxxii).

An additional plate (IV.) 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  $5^{\circ}$  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 $1^{\circ}$ 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	2.484	63.09	4.664	118.47
On the Plates - -	2.580	65.53	1.366	34.70	2.565	65.16

The scales actually attached to the plates are, however, so arranged as to correspond with the tables of the magnetic section—that is to say, the units for horizontal force and vertical force are 0.0001 of the whole horizontal and vertical forces respectively, the numbers being in some cases increased by 1000 to avoid negative quantities. At the foot of each plate equivalent scales, in C.G.S. measure, are given for each of the magnetic registers. (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 = 66°.55'.17"]  
 = Horizontal Force × 2.3469 ;

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	2.48	63.1	1.99	50.5
On the Plates - -	1.47	37.4	1.37	34.7	1.09	27.8

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 1906 = 4.0174  
 Millimètre-milligramme-second, or Metric unit, " " " = 1.8524  
 Centimètre-gramme-second, or C.G.S. unit, " " " = 0.18524

Dividing, therefore, the scale values last given by 4.0174, 1.8524, and 0.18524 respectively, the following comparative scale values for each of the elements on the photographs and on the plates as referred to 0.01 of these units respectively are found :—

UNIT.	LENGTH OF 0.01 OF UNIT.											
	Declination.				Horizontal Force.				Vertical Force.			
	On the Photo-graphs.		On the Plates.		On the Photo-graphs.		On the Plates.		On the Photo-graphs.		On the Plates.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.
British - - - -	0.67	17.0	0.37	9.3	0.62	15.7	0.34	8.6	0.49	12.6	0.27	6.9
Metric - - - -	1.45	36.8	0.80	20.2	1.34	34.1	0.74	18.7	1.07	27.2	0.59	15.0
C.G.S. - - - -	14.5	368	8.0	202	13.4	341	7.4	187	10.7	272	5.9	150

MAGNETIC ELEMENTS.

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

Year.	Declination West.	Horizontal Force, C.G.S. Unit.	Dip.	Year.	Declination West.	Horizontal Force, C.G.S. Unit.	Dip.
1841	23.16'2	...	...	1874	19.28'9	0.1795	67.43'6
1842	23.14'6	...	...	1875	19.21'2	0.1795	67.42'3
1843	23.11'7	...	69. 0'6	1876	19. 8'3	0.1797	67.40'9
1844	23.15'3	...	69. 0'3	1877	18.57'2	0.1799	67.39'6
1845	22.56'7	...	68.57'5	1878	18.49'3	0.1801	67.38'1
1846	22.49'6	0.1731	68.58'1	1879	18.40'5	0.1803	67.36'9
1847	22.51'3	0.1736	68.59'0	1880	18.32'6	0.1804	67.35'6
1848	22.51'8	0.1731	68.54'7	1881	18.27'1	0.1805	67.34'6
1849	22.37'8	0.1733	68.51'3	1882	18.22'3	0.1804	67.34'1
1850	22.23'5	0.1738	68.46'9	1883	18.15'0	0.1810	67.31'6
1851	22.18'3	0.1744	68.40'4	1884	18. 7'6	0.1812	67.29'6
1852	22.17'9	0.1745	68.42'7	1885	18. 1'7	0.1816	67.27'8
1853	22.10'1	0.1748	68.44'6	1886	17.54'5	0.1816	67.27'0
1854	22. 0'8	0.1749	68.47'7	1887	17.49'1	0.1818	67.26'4
1855	21.48'4	0.1756	68.44'6	1888	17.40'4	0.1820	67.25'4
1856	21.43'5	0.1759	68.43'5	1889	17.34'9	0.1821	67.24'1
1857	21.35'4	0.1769	68.31'1	1890	17.28'6	0.1823	67.22'9
1858	21.30'3	0.1762	68.28'3	1891	17.23'4	0.1825	67.21'4
1859	21.23'5	0.1761	68.26'9	1892	17.17'4	0.1827	67.19'9
1860	21.14'3	...	68.30'1	1893	17.11'4	0.1829	67.17'8
1861	21. 5'5	0.1773	68.24'6	1894	17. 4'6	0.1829	67.17'3
		0.1757	68.15'8	1895	16.57'4	0.1832	67.16'0*
1862	20.52'6	0.1761	68. 9'6	1896	16.51'7*	0.1833*	67.15'0*
1863	20.45'9	0.1763	68. 7'0	1897	16.45'8*	0.1836	67.13'4*
1864	...	0.1765	68. 4'1	1898	16.39'2*	0.1838	67.11'8
1865	20.33'9	0.1765	68. 2'7	1899	16.34'2	0.1842	67.10'2
1866	20.28'0	0.1771	68. 1'3	1900	16.29'0	0.1844	67. 8'5
1867	20.20'5	0.1776	67.57'2	1901	16.26'0	0.1848	67. 6'1
1868	20.13'1	0.1777	67.56'5	1902	16.22'8	0.1850	67. 3'4
1869	20. 4'1	0.1780	67.54'6	1903	16.19'1	0.1850	67. 0'9
1870	19.53'0	0.1782	67.52'4	1904	16.15'0	0.1852	66.57'2
1871	19.41'9	0.1785	67.50'2	1905	16. 9'9	0.1852	66.55'9
1872	19.36'8	0.1787	67.47'9	1906	16. 3'6	0.1852	66.55'3
1873	19.33'4	0.1791	67.45'6				

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

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

Slight interruptions in the traces on the plates are due to various causes. In the originals there are breaks at each hour for time scale, so slight, however, that in the copies the traces could usually be made continuous without fear of error: in a few cases, however, this could not be done. Further, to check the numeration of hours, the observer interrupts the register at definite times for about five minutes, usually at or near 9<sup>h</sup> 30<sup>m</sup>, 12<sup>h</sup> 30<sup>m</sup>, and 20<sup>h</sup> 30<sup>m</sup> 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<sup>m</sup>·565 in diameter, and the depression of the mercury due to capillary action is 0<sup>m</sup>·002, but no correction is applied on this account. The cistern is of glass, and the graduated scale and attached rod are of brass; at its lower end the rod terminates in a point of ivory, which in observation is made just to meet the reflected image of the point as seen in the mercury. The scale is divided to 0<sup>m</sup>·05, sub-divided by vernier to 0<sup>m</sup>·002.

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

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

Observatories, made in the spring of the year 1877, under the direction of the Kew Committee, by Mr. Whipple, showed that the difference between the two barometers (after applying to the Greenwich barometer-readings the correction  $-0^{\text{in}}\cdot006$ ) did not exceed  $0^{\text{in}}\cdot001$ . (*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  $5^{\text{ft}}\cdot 2^{\text{in}}$  above Mr. Lloyd's reference mark in Bradley's Transit room adjoining the present Transit-circle room. (*Philosophical Transactions*, 1831.)

The barometer is read at  $9^{\text{h}}$ ,  $12^{\text{h}}$  (noon),  $15^{\text{h}}$ ,  $21^{\text{h}}$  (civil reckoning) on week days; and at  $10^{\text{h}}$ , noon, and  $20^{\text{h}}$  on Sundays. Each reading is corrected by application of the index-correction above mentioned, and reduced to the temperature  $32^{\circ}$  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  $1\cdot1$  inch, and that of the intermediate portion  $0\cdot3$  inch. A metallic plunger, floating on the mercury in the shorter arm of the siphon, is partly supported by a counterpoise acting on a light lever, leaving a definite part of its weight to be supported by the mercury. The lever carries at its other end a vertical plate of aluminium, having a small horizontal slit, whose distance from the fulcrum is about eight times that of the point of connexion with the float, and whose vertical movement is therefore about four times that of the ordinary barometric column. The light of a gas lamp, passing through this slit and falling on a cylindrical lens, forms a spot of light on the paper. The barometer can, by screw action, be raised or lowered so as to keep the photographic trace in a convenient part of the sheet. A base line is traced on the sheet, and the record is interrupted at each hour by the clock, and occasionally by the observer, in the same way as for the magnetic registers. The length of the time scale is also the same.

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



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

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

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

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

at  $32^{\circ}$  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 corrections  $-0^{\circ}\cdot4$  and  $-0^{\circ}\cdot3$  have been respectively 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. The readings of Negretti and Zambra, No. 83760, for maximum temperature of the air, required no correction; to those of Negretti and Zambra, No. 38338, for minimum temperature of the air, a correction of  $+0^{\circ}\cdot1$  has been applied; to those of Negretti and Zambra, No. 102104, for maximum temperature of evaporation, a correction of  $+0^{\circ}\cdot1$  has been applied; and to those of Negretti and Zambra, No. 98508, for minimum temperature of evaporation, a correction of  $+0^{\circ}\cdot1$  has been applied.

The dry and wet bulb thermometers are read at  $9^{\text{h}}$ ,  $12^{\text{h}}$  (noon),  $15^{\text{h}}$ ,  $21^{\text{h}}$  (civil reckoning) on week days, and at  $10^{\text{h}}$ , noon, and  $20^{\text{h}}$  on Sundays. Readings of the maximum and minimum thermometers are taken at  $9^{\text{h}}$  and  $21^{\text{h}}$  on week days, and at  $10^{\text{h}}$  and  $20^{\text{h}}$  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, and the maximum thermometer is Negretti and Zambra, No. 85059, neither of which required correction. To the readings of the minimum thermometer, Negretti and Zambra, No. 68873, a correction of  $+0^{\circ}\cdot1$  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 1905 was Hicks, No. 268524, to the readings of which a correction of  $-0^{\circ}\cdot 1$  has been applied. Negretti and Zambra, No. 37467, is a self-registering maximum thermometer, to the readings of which a correction of  $-0^{\circ}\cdot 4$  has been applied. No. 342663, by Hicks, is a self-registering minimum thermometer, to the readings of which corrections have been applied as follow: below  $45^{\circ} + 0^{\circ}\cdot 1$ ,  $45^{\circ}$  to  $55^{\circ} + 0^{\circ}\cdot 2$ , and above  $55^{\circ} + 0^{\circ}\cdot 3$ . 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. 94859, a correction of  $-0^{\circ}\cdot 4$  has been applied, and to those of the minimum thermometer, Negretti and Zambra, No. 85080, a correction of  $+ 0^{\circ}\cdot 1$  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  $32^\circ$ ,  $52^\circ$ ,  $72^\circ$ , &c. The length of scale is from  $0^\circ$  to  $120^\circ$  for each thermometer, the length of  $1^\circ$  being about 0.1 inch, and the air-bubble in the wet-bulb thermometer is about  $12^\circ$  in length, so that it will always include one of the ten-degree lines. The bulbs, which are 2 inches long and of about  $\frac{1}{2}$  an inch in internal bore, are separated horizontally by 5 inches, the tubes of the thermometers having a double bend above the bulbs, which are placed about 4 feet above the ground. The thermometers are carried by a vertical frame with independent vertical adjustment for each thermometer, so that the register in summer or winter can be brought to a convenient part of the photographic sheet. The revolving cylinder is driven by a pendulum clock contained within the brass case covering the whole apparatus, excepting the thermometer bulbs which project below. It makes one revolution in 26 hours, and the time scale is the same as that for all the other registers. As the cylinder revolves, the light passing through the portion of the thermometer tubes not occupied by mercury imprints on the paper a broad band of photographic trace, corresponding to the dry-bulb register, whose breadth in the vertical direction varies with the height of the mercury in the tube, and a narrower band below, corresponding to the wet bulb. When these are developed, the traces are seen to be crossed by thin white lines, the horizontal lines corresponding to degrees, and the vertical lines to hours, the lower

boundary of each trace indicating the thermometric record corresponding to the upper surface of the thermometric column.

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

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

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

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

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

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

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

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

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

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

These thermometers are read every day at noon, and the readings are given without correction. The index-errors of Nos. 1, 2, 3, and 4 are unknown; No. 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<sup>ft.</sup> 2<sup>in.</sup> 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 1905 eight rain gauges were employed, placed at different elevations above the ground, complete information in regard to which will be found at page (cx) 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<sup>h</sup> 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. New gauges of copper similar to No. 6 were introduced on November 1. All are read daily at 9<sup>h</sup> Greenwich civil time.

Gauge No. 6 is an 8-inch circular gauge placed with the receiving surface 5 inches above the ground in the Magnetic Pavilion enclosure, about 10 feet north-west of the thermometer stand, and gauges Nos. 7 and 8, also 8-inch circular gauges, similarly placed in the ground south-east of the Magnetic Observatory were in use until the end of February; 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<sup>h</sup>, 15<sup>h</sup>, and 21<sup>h</sup> Greenwich civil time, and Nos. 7 and 8 at 9<sup>h</sup> only. On March 1, a new gauge of copper similar to No. 6 was substituted for No. 7, and the use of No. 8 was discontinued.

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

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

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

amount of charge. The needle hangs within four insulated quadrants, which may be supposed to be formed by cutting a circular flat brass box into quarters, and then slightly separating them. The opposite quadrants are placed in metallic connexion.

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

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

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

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

SUNSHINE RECORDER.—Until the end of the year 1886 the instrument with which the record given in the printed volume was made was that presented to the Royal Observatory by Mr. J. F. Campbell, by whom this method of record was devised. This instrument is fully described in the Introductions to previous volumes. Commencing with the year 1887, the record is that of a modification of the Campbell form of instrument, as arranged by Sir G. G. Stokes for use at the observing stations of the Meteorological Office. By employing this instrument, the manipulation of which is more simple, there is the further advantage that the Greenwich results become strictly comparable with those of the Meteorological Office Stations. A very complete account of the Campbell-Stokes instrument is given in the *Quarterly Journal of the Royal Meteorological Society*, vol. vi. page 83. The recording cards are supported by carriers no larger than is required for keeping them in proper position; one straight card serves for the equinoctial periods of the year, and another, curved, for the solstitial periods, the only difference between the summer and winter cards being that the summer cards are the longer: grooves are provided so that the cards are placed in position with great readiness. The daily record is transferred to a sheet of paper specially ruled with equal vertical spaces to represent hours, each sheet containing the record for one calendar month. The daily sums, and sums for each hour (reckoning from *apparent* midnight) through the month, are thus readily formed. The recorded durations are to be understood as indicating the amount of *bright* sunshine, no register being obtained when the sun shines faintly through fog or cloud, or when the sun is very near the horizon. Until 1896 February 5 the instrument was placed on a table upon the platform above the Magnetic Observatory, about 21 feet above the ground, and 176 feet above mean sea level. On account of the extension of the buildings in the south ground, it was found necessary on 1896 February 6 to remove the sunshine recorder from the roof of the Magnetic Observatory to a commanding position on the stage carrying the Robinson anemometer, on the roof of the Octagon Room, about 50 feet above the ground. A clear view of the sun is obtained in this position from sunrise to sunset, but some inconvenience is caused by the smoke from neighbouring chimneys. Very little record is obtained near to sunrise at any part of the year.

It was pointed out by Mr. Marriott, Secretary of the Royal Meteorological Society, towards the end of 1896, that the record by the Campbell-Stokes instrument exhibited a notable falling off. This, though not very marked till 1896, had certainly begun in 1894, and it was found to be due to opacity in the glass globe, which appears to have deteriorated. On 1897 January 1 a globe of clearer glass, presented to the Royal Observatory in 1881 by the late Mr. Campbell, was substituted for the defective globe.

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

OZONOMETER.—This apparatus was fixed on the roof of the Photographic Thermometer shed, at a height of about 10 feet from the ground. The box in which the papers were formerly exposed is of wood: it is about 8 inches square, blackened inside, and so constructed that there is free circulation of air through the box, without exposure of the paper to light. Since 1901 the papers have been exposed in the Stevenson's screen in the Magnetic Pavilion Enclosure, in order to be at a greater distance from the main buildings, the use of the old Ozonometer box being temporarily discontinued, as a comparison had shown that more ozone was indicated in the new position. On 1906 October 22, the Ozonometer box was removed and placed on the top of the Stevenson's screen in the Magnetic Pavilion Enclosure, and Ozone papers subsequently exposed for purposes of comparison, both in the box and in the screen. The papers exposed at 9<sup>h</sup>, 15<sup>h</sup>, and 21<sup>h</sup> are collected respectively at 15<sup>h</sup>, 21<sup>h</sup>, and 9<sup>h</sup>, 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<sup>h</sup>, the values registered at 15<sup>h</sup> and 21<sup>h</sup>, and one-fourth of that registered at the following 9<sup>h</sup>, 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<sup>h</sup>, 15<sup>h</sup>, and 21<sup>h</sup> 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<sup>h</sup> and 21<sup>h</sup> (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<sup>h</sup> to 23<sup>h</sup>), 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<sup>h</sup>, 12<sup>h</sup> (noon), 15<sup>h</sup>, and 21<sup>h</sup> 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 (lxiii) and (lxiv)) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pages (lxii) and (lxiii)).

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

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

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

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

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

The daily register of rain contained in column 16 is that recorded by the gauge No. 6, whose receiving surface is 5 inches above the ground. This gauge is usually read at 9<sup>h</sup>, 15<sup>h</sup>, and 21<sup>h</sup> Greenwich civil time. The continuous record of Osler's self-registering gauge shows whether the amounts measured at 9<sup>h</sup> 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<sup>h</sup> 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 (lxi) and (cx), 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<sup>m</sup>.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 (xxxv) to (lvii), and in the abstract table, page (lxi), is the mean found from observations made usually at 9<sup>h</sup>, 12<sup>h</sup> (noon), 15<sup>h</sup>, and 21<sup>h</sup> 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<sup>h</sup>, and those following it to the interval from 6<sup>h</sup> to noon. When there are two colons in the first column, it is to be understood that the twelve hours are divided into three nearly equal parts of four hours each. And similarly for the second column. In regard to Electricity, the results are included in one column; in this case the colons divide the whole period of 24 hours (midnight to midnight).

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

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

The following is the notation employed for Electricity:—

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

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

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

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

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

In the tables of mean values of meteorological elements at each hour for the different months of the year, the mean values have, in previous years, been given for the hours 0<sup>h</sup> to 23<sup>h</sup> 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<sup>h</sup> to 24<sup>h</sup>, as well as for the hours, 0<sup>h</sup> (midnight) to 23<sup>h</sup>, which were given in former years.

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

pages (xxxiv) to (lvi), and in the table on page (lxi), 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 (xcvii), 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 (civ), is formed. By direct motion it is to be understood that the change of direction occurred in the order N, E, S, W, N, &c., and by retrograde motion that the change occurred in the order N, W, S, E, N, &c.

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

In regard to the observations of Luminous Meteors, it is simply necessary to say that, in general, only special meteor showers are watched for, such as those of April, August, and November. The regular observers of meteors in the year 1906 were Mr. Showell, Mr. Parkinson and Mr. Barrett. Their observations are distinguished by the initials S., P. and H.B. respectively. A few observations taken by Mr. Crommelin and Mr. Fowler are distinguished by the initials A.C. and F. respectively.

W. H. M. CHRISTIE.



ROYAL OBSERVATORY, GREENWICH.

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RESULTS

OF

MAGNETICAL OBSERVATIONS

(EXCLUDING DAYS OF GREAT MAGNETIC DISTURBANCE),

1906.

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RESULTS OF OBSERVATIONS OF MAGNETIC DECLINATION AND HORIZONTAL FORCE

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

Table with 13 columns (January to December) and 31 rows (Day of Month). Includes a sub-header for 1906 and degree indicators (16° and 15°).

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

Table with 13 columns (January to December) and 24 rows (Hour, Greenwich Civil Time). Includes a sub-header for 1906 and a 'Means' row at the bottom.

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.)

1906.

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	857	425	898	511	778	403	961	557	899	495	376	956	393	982	375	058	388	102	262	890	250	839	125	688
2	873	486	933	549	875	500	958	562	937	524	245	825	344	948	379	075	328	060	405	028	248	842	078	653
3	007	572	910	506	889	485	984	588	044	652	...	...	360	971	388	097	312	063	449	055	255	847	065	671
4	000	618	900	480	911	503	942	519	075	657	...	...	338	951	304	984	278	023	472	068	250	844	123	698
5	069	687	902	501	893	477	907	499	050	630	137	743	379	014	348	010	294	997	487	103	203	826	137	709
6	069	658	873	457	989	590	905	509	082	678	149	762	316	958	397	085	416	093	448	044	286	863	093	649
7	065	647	875	459	046	618	913	526	095	715	155	754	293	940	415	113	448	136	479	075	304	910	016	586
8	995	601	921	489	030	614	970	588	133	746	127	738	306	951	285	996	390	070	477	076	315	890	905	463
9	082	635	930	490	983	558	942	565	088	684	127	738	338	995	276	982	342	007	495	079	320	880	095	551
10	052	612	889	502	918	517	904	512	117	675	132	740	342	992	280	976	300	930	542	131	278	841	118	528
11	013	578	912	508	971	582	851	476	061	667	214	818	355	983	333	010	352	948	446	042	203	771	976	463
12	006	602	930	493	976	560	938	534	086	711	248	856	244	850	380	050	367	980	318	905	135	710	903	468
13	022	645	873	467	910	497	989	590	223	803	290	896	289	885	380	076	400	025	266	829	061	657	875	447
14	028	596	944	497	850	432	980	552	275	876	263	831	310	935	367	094	422	040	285	818	059	672	890	474
15	005	609	863	447	937	533	891	485	074	661	275	857	337	965	387	070	400	011	285	884	164	724	873	469
16	021	610	770	405	121	691	866	470	998	582	303	904	373	989	391	043	443	003	333	941	140	720	860	468
17	012	599	916	522	091	671	990	591	048	608	295	896	434	071	408	048	440	027	357	934	210	790	846	464
18	965	557	951	543	040	617	005	577	042	622	272	885	419	074	437	055	428	053	390	965	227	775	981	575
19	965	533	854	448	924	501	908	509	939	650	265	888	377	029	467	073	447	070	333	910	079	656	024	608
20	882	447	875	459	891	483	957	532	963	564	334	950	422	030	459	075	500	101	313	871	087	645	952	517
21	861	460	872	476	882	474	963	576	037	621	343	995	424	016	503	158	512	094	378	962	062	646	911	491
22	875	476	862	451	881	446	965	561	139	731	364	034	533	161	478	163	519	101	339	947	160	735	662	246
23	944	490	865	457	895	463	931	532	128	753	334	009	579	251	450	151	337	900	354	948	231	808	673	255
24	908	497	709	325	870	469	917	492	261	848	357	014	476	151	482	175	400	960	365	942	179	797	710	321
25	931	554	665	271	822	375	932	521	178	758	386	023	404	056	502	177	407	963	288	858	253	833	737	353
26	038	632	750	363	866	422	880	450	196	776	413	058	431	078	554	196	358	923	220	812	218	786	782	376
27	041	635	825	421	836	399	880	457	296	892	393	043	447	122	524	191	339	921	239	847	194	788	815	373
28	025	624	727	340	878	460	926	530	295	927	430	095	419	091	445	092	298	892	309	872	210	775	845	403
29	038	625			898	487	926	501	335	982	407	023	440	105	452	087	290	889	254	829	197	798	835	412
30	039	616			895	475	912	516	285	879	404	988	487	175	470	115	262	880	239	816	245	817	815	385
31	941	542			913	505			353	930			390	096	432	112			255	832			826	439

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



(iv)

## RESULTS OF OBSERVATIONS OF HORIZONTAL MAGNETIC FORCE

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

1906.												
Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	66°4	68°3	68°8	67°6	67°6	66°9	67°3	71°1	72°3	68°9	67°3	66°2
2	68°3	68°4	68°8	67°9	67°2	66°9	67°9	71°6	73°0	68°7	67°5	66°7
3	66°3	67°6	67°6	67°9	68°1	...	68°2	72°1	73°7	68°0	67°4	68°0
4	68°5	66°9	67°4	66°8	67°0	...	68°3	71°0	73°5	67°6	67°5	66°7
5	68°5	67°7	67°1	67°4	66°9	68°0	69°2	70°3	71°9	68°4	68°7	66°6
6	67°3	67°1	67°8	67°9	67°6	68°3	69°5	71°3	70°9	67°6	66°8	65°9
7	67°0	67°1	66°6	68°3	68°6	67°7	69°7	71°7	71°3	67°6	68°0	66°5
8	68°0	66°4	67°1	68°5	68°3	68°2	69°6	72°2	71°0	67°7	66°7	66°0
9	65°8	66°1	66°7	68°7	67°6	68°2	70°1	72°0	70°4	67°1	66°1	61°5
10	66°1	68°3	67°7	68°1	66°0	68°1	69°8	71°6	69°0	67°3	66°2	59°3
11	66°3	67°6	68°2	68°8	68°0	67°9	68°9	70°9	67°6	67°6	66°4	62°9
12	67°6	66°2	67°1	67°6	68°8	68°1	68°0	70°6	68°3	67°2	66°7	66°3
13	68°7	67°5	67°2	67°8	66°9	68°0	67°6	71°6	68°8	66°2	67°6	66°6
14	66°4	65°8	67°0	66°6	67°8	66°4	68°8	72°8	68°5	64°9	68°3	67°1
15	67°9	67°1	67°6	67°5	67°2	67°0	68°9	71°1	68°2	67°7	66°1	67°6
16	67°3	69°2	66°5	67°9	67°1	67°8	68°4	69°9	66°1	68°1	66°9	68°1
17	67°2	68°0	66°9	67°8	66°1	67°8	69°3	69°4	67°2	66°8	66°9	68°5
18	67°4	67°4	66°8	66°6	66°9	68°3	70°0	68°5	68°8	66°7	65°6	67°5
19	66°4	67°5	66°8	67°8	68°2	68°7	69°9	68°0	68°7	66°8	66°8	67°1
20	66°3	67°1	67°4	66°7	67°8	68°4	68°1	68°4	67°8	66°0	66°0	66°3
21	67°7	67°9	67°4	68°3	67°1	69°9	67°4	70°0	67°0	67°1	67°1	66°9
22	67°8	67°3	66°3	67°6	67°4	70°6	68°9	71°2	67°0	68°1	66°7	67°1
23	65°5	67°4	66°4	67°8	68°8	70°8	70°7	71°8	66°2	67°5	66°8	67°0
24	67°3	68°4	67°7	66°7	67°2	70°1	70°8	71°5	66°1	66°8	68°5	68°2
25	68°7	68°0	65°8	67°3	66°9	69°3	69°9	70°8	65°9	66°5	66°9	68°4
26	67°5	68°3	65°9	66°5	66°9	69°6	69°7	69°5	66°3	67°4	66°4	67°5
27	67°5	67°6	66°2	66°8	67°6	69°8	70°8	70°5	67°0	68°1	67°5	66°0
28	67°7	68°3	67°0	67°9	69°1	70°4	70°7	69°7	67°5	66°2	66°3	66°0
29	67°2		67°3	66°7	69°7	68°4	70°4	69°2	67°7	66°7	67°8	66°8
30	66°8		66°9	67°9	67°5	67°1	71°3	69°6	68°5	66°8	66°6	66°5
31	67°8		67°4		66°8		72°0	71°0		66°8		68°3
Means	67°26	67°52	67°14	67°59	67°57	68°45	69°36	70°67	68°87	67°25	67°00	66°45

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.)

Table with columns for months (January-December) and hours (Midnight to 23). Each month has two columns: 'u' (uncorrected) and 'c' (corrected for temperature). A summary row at the bottom shows the mean corrected values for each month.

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

Table with columns for months (January-December) and hours (Midnight to 23). Each month has one column for mean temperature. A final column 'For the Year' shows the annual mean temperature for each hour.

RESULTS OF OBSERVATIONS OF VERTICAL MAGNETIC FORCE

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.)

1906.

Table with columns for months (January to December) and rows for days (1 to 31). Each month column contains two sub-columns: 'u' (uncorrected) and 'c' (corrected). Values range from approximately 940 to 217.

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.

1906.												
Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	67°·1	68°·2	68°·8	67°·7	67°·1	66°·5	67°·2	69°·9	71°·5	68°·8	68°·0	67°·1
2	68°·2	68°·3	68°·5	68°·1	67°·4	66°·8	67°·7	70°·6	72°·2	67°·6	68°·0	67°·5
3	65°·9	67°·4	67°·7	67°·5	67°·9	67°·6	67°·3	70°·8	72°·8	66°·7	67°·9	68°·0
4	67°·7	67°·2	67°·5	66°·4	66°·2	68°·5	67°·3	69°·9	72°·4	66°·5	67°·7	67°·2
5	67°·8	67°·9	67°·7	66°·9	67°·0	67°·8	67°·9	69°·3	70°·4	67°·3	68°·2	66°·4
6	66°·6	67°·3	68°·1	67°·7	67°·6	68°·1	68°·3	70°·1	69°·7	66°·4	66°·7	66°·4
7	67°·4	67°·3	66°·6	68°·2	68°·2	66°·7	68°·4	70°·6	70°·1	66°·6	68°·0	66°·6
8	67°·7	67°·2	67°·7	68°·1	67°·6	67°·3	68°·1	71°·3	69°·9	66°·6	66°·5	65°·9
9	66°·8	67°·0	67°·5	68°·3	66°·7	67°·6	68°·8	70°·9	69°·3	65°·9	65°·8	60°·5
10	67°·4	68°·8	68°·9	68°·4	66°·4	67°·5	68°·7	70°·3	67°·9	66°·2	66°·4	59°·1
11	67°·7	67°·6	68°·1	68°·7	68°·7	67°·2	67°·8	69°·8	66°·5	66°·4	66°·7	64°·4
12	68°·6	66°·3	66°·7	67°·5	68°·5	67°·5	66°·4	69°·4	67°·1	65°·9	66°·8	67°·0
13	68°·7	67°·9	67°·8	67°·7	65°·6	67°·4	66°·3	70°·6	67°·9	65°·0	67°·7	66°·6
14	66°·6	66°·4	68°·2	66°·5	66°·6	65°·9	67°·6	71°·6	67°·3	65°·0	68°·3	66°·8
15	67°·8	66°·7	68°·0	67°·8	66°·2	67°·4	67°·4	69°·8	67°·0	68°·4	65°·7	67°·5
16	67°·3	69°·6	66°·7	67°·8	67°·3	68°·1	67°·0	68°·7	65°·0	67°·4	67°·5	68°·0
17	67°·1	68°·5	68°·0	67°·3	66°·6	66°·5	68°·1	68°·0	66°·2	66°·5	67°·2	67°·5
18	67°·4	67°·8	66°·9	67°·1	67°·3	67°·0	68°·8	67°·2	67°·5	66°·4	66°·1	66°·7
19	66°·5	67°·3	67°·1	68°·8	68°·4	67°·1	68°·4	66°·9	67°·4	67°·6	67°·3	66°·4
20	66°·8	67°·6	67°·7	67°·7	67°·1	67°·5	66°·6	67°·3	66°·4	67°·2	66°·3	66°·1
21	68°·7	68°·7	68°·4	68°·6	66°·9	69°·0	66°·1	69°·1	65°·9	67°·4	67°·2	66°·8
22	68°·6	67°·6	66°·3	67°·0	66°·9	69°·3	67°·8	70°·2	65°·8	67°·8	66°·6	67°·3
23	65°·9	67°·1	66°·2	67°·1	68°·4	69°·4	69°·6	70°·6	65°·1	66°·7	66°·7	66°·8
24	68°·3	68°·8	67°·7	66°·7	65°·9	68°·4	69°·4	70°·4	64°·8	65°·5	67°·5	68°·3
25	68°·9	68°·7	66°·1	67°·5	66°·6	67°·8	68°·5	69°·5	65°·0	67°·0	65°·9	68°·0
26	67°·6	68°·0	66°·6	66°·8	66°·7	68°·2	68°·4	68°·5	66°·1	67°·9	65°·4	66°·8
27	67°·5	67°·2	67°·1	67°·2	67°·2	68°·3	69°·7	69°·2	66°·4	68°·3	66°·6	66°·3
28	67°·4	68°·8	67°·9	67°·8	68°·8	69°·0	69°·6	68°·6	67°·5	66°·1	66°·6	66°·3
29	67°·8		68°·2	66°·2	68°·6	66°·8	69°·5	68°·2	67°·8	66°·2	68°·5	67°·3
30	67°·3		67°·6	67°·1	66°·0	66°·6	70°·3	68°·5	68°·6	67°·3	67°·1	66°·7
31	68°·1		67°·6		65°·2		70°·8	70°·3		67°·3		68°·2
Means	67°·52	67°·76	67°·55	67°·54	67°·15	67°·63	68°·19	69°·55	67°·92	66°·84	67°·03	66°·47

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.)

Table with columns for months (January-December) and rows for hours (Midnight to 23h). Includes a summary row for 'Means corrected for Temperature' at the bottom.

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

Table with columns for months (January-December) and rows for hours (Midnight to 23h). Includes a 'For the Year' column on the right.

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, 1906.	DECLINATION WEST in Arc.	HORIZONTAL FORCE in terms of the whole Horizontal Force (diminished by a Constant).	VERTICAL FORCE in terms of the whole Vertical Force (diminished by a Constant).	in terms of GAUSS'S METRICAL UNIT.		
				DECLINATION diminished by 16° and expressed as Westerly Force	HORIZONTAL FORCE (diminished by a Constant)	VERTICAL FORCE (diminished by a Constant)
January.....	16. 6.3	576	217	339	1067	943
February.....	16. 4.6	458	186	248	848	809
March.....	16. 5.0	510	169	269	945	735
April.....	16. 4.4	529	123	237	980	535
May.....	16. 4.1	719	160	221	1332	696
June.....	16. 3.3	904	214	178	1675	930
July.....	16. 3.1	1026	261	167	1901	1135
August.....	16. 3.4	1083	257	183	2006	1117
September.....	16. 2.3	1007	240	124	1865	1043
October.....	16. 2.4	946	228	129	1752	991
November.....	16. 2.3	783	145	124	1450	630
December.....	16. 1.9	490	080	102	908	348
Means.....	16. 3.6	.....	.....	193	.....	.....
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 1.8524 and 0.18524 respectively for the year, and of whole Vertical Force (applicable to column 6) are 4.3474 and 0.43474 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 1906.

(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.	1.47	144.4	25.9	79.2	267.5	112.6
1 <sup>h</sup>	1.61	140.2	22.4	86.8	259.7	97.4
2	1.66	134.6	21.8	89.4	249.3	94.8
3	1.72	132.8	22.9	92.7	246.0	99.6
4	1.61	132.3	25.9	86.8	245.1	112.6
5	1.21	131.3	27.6	65.2	243.2	120.0
6	0.82	122.3	28.4	44.2	226.5	123.5
7	0.37	99.9	29.9	19.9	185.1	130.0
8	0.00	65.2	30.4	0.0	120.8	132.2
9	0.44	25.6	23.3	23.7	47.4	101.3
10	2.13	0.0	13.4	114.8	0.0	58.3
11	4.51	0.9	3.8	243.0	1.7	16.5
Noon.	6.68	28.4	0.0	359.9	52.6	0.0
13 <sup>h</sup>	7.66	62.7	5.9	412.8	116.1	25.6
14	7.36	93.8	17.5	396.6	173.8	76.1
15	6.17	116.9	27.3	332.5	216.5	118.7
16	4.90	131.3	34.9	264.0	243.2	151.7
17	3.86	143.3	39.6	208.0	265.4	172.2
18	3.13	156.9	40.7	168.7	290.6	176.9
19	2.62	161.5	40.4	141.2	299.2	175.6
20	2.07	163.0	38.3	111.5	301.9	166.5
21	1.61	157.3	36.1	86.8	291.4	156.9
22	1.36	150.7	32.2	73.3	279.2	140.0
23	1.34	145.4	30.4	72.2	269.3	132.2
Means	2.76	110.0	25.8	148.9	203.8	112.1
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 1.8524 and 0.18524 respectively, and of the whole Vertical Force (applicable to column 6) are 4.3474 and 0.43474 respectively.

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

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

1906.																								
Day of Month.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.
1	4.5	156	7.3	240	11.8	308	9.0	192	9.0	209	7.8	337	12.5	222	10.0	173	7.8	226	...	387	7.9	247	5.0	192
2	3.3	154	6.2	120	7.3	110	13.1	337	8.8	281	12.4	514	10.8	214	10.8	287	8.9	296	...	215	6.7	166	4.7	77
3	4.9	140	5.7	143	7.9	175	10.6	338	10.4	157	...	...	10.4	199	10.9	158	15.0	331	...	195	6.5	212	6.7	137
4	4.4	130	5.6	137	13.3	207	9.1	217	8.0	262	...	...	11.2	311	10.6	212	12.6	366	...	205	9.0	162	3.6	119
5	4.4	142	8.3	155	11.0	237	11.6	221	8.5	180	13.8	257	16.1	385	9.5	397	9.3	362	...	172	9.4	217	3.5	169
6	7.9	144	10.8	214	6.8	343	11.4	201	11.5	306	12.5	309	15.4	360	10.3	205	9.4	326	...	229	7.2	125	2.8	128
7	3.9	66	6.0	174	10.0	230	9.3	181	9.9	192	13.1	299	11.7	370	14.1	443	10.3	248	...	202	7.9	188	4.8	83
8	6.4	116	5.2	166	10.5	250	11.0	237	15.5	437	12.8	334	12.6	382	14.9	456	8.0	218	7.7	157	9.9	239	16.8	363
9	4.7	113	5.2	182	9.2	317	10.8	257	11.8	195	10.5	312	11.5	332	11.4	411	9.3	311	6.3	182	8.0	173	17.6	300
10	2.5	123	6.4	153	6.9	264	13.0	289	11.6	192	13.5	354	15.6	490	10.9	288	9.4	222	7.9	197	6.0	205	3.0	143
11	3.7	137	4.0	162	8.4	178	14.0	300	15.3	263	9.6	280	20.0	482	9.8	295	7.3	241	7.8	337	9.5	137	3.8	74
12	5.4	149	5.1	149	13.1	211	9.7	331	10.7	259	9.9	290	14.0	497	12.4	188	7.1	246	7.1	276	5.0	125	4.3	151
13	7.0	183	6.3	214	13.2	121	15.1	304	8.8	316	10.4	255	13.3	419	9.6	298	9.4	237	8.9	299	5.0	133	3.8	74
14	3.8	138	6.2	225	11.3	189	11.5	227	9.7	244	13.9	233	8.2	210	8.2	190	8.0	249	7.4	198	4.0	143	4.6	98
15	5.9	122	16.6	256	10.6	249	10.3	190	14.7	414	12.0	391	12.2	284	9.0	215	10.0	257	7.2	171	7.8	145	7.7	142
16	4.2	162	14.0	214	10.0	112	12.4	270	7.9	232	9.0	380	7.5	349	7.6	305	7.8	210	7.2	192	7.1	201	7.6	230
17	5.6	190	7.6	190	10.8	148	10.4	273	9.4	230	10.3	252	8.5	210	10.8	185	7.6	308	7.3	185	7.3	200	6.1	194
18	3.8	79	7.1	252	9.9	265	10.8	297	10.4	353	11.9	253	13.0	290	8.4	181	8.6	240	8.3	195	8.7	163	3.4	94
19	5.3	233	16.4	403	7.8	173	13.5	266	13.1	224	10.1	325	12.5	290	9.6	194	7.6	213	13.5	305	6.9	192	3.4	92
20	6.0	144	6.3	245	9.6	235	11.1	223	18.1	425	10.3	218	15.8	293	12.1	343	9.0	193	8.4	202	6.2	102	5.7	142
21	5.4	133	6.2	223	9.5	206	11.4	157	14.2	479	11.6	270	16.5	280	9.3	200	7.1	274	11.2	177	11.1	487	12.6	130
22	4.8	76	8.6	231	9.7	211	10.4	264	13.4	293	10.4	235	12.0	354	8.5	308	17.7	325	10.4	132	6.0	237	23.0	469
23	4.9	207	10.1	247	9.0	166	11.8	210	14.6	332	9.7	191	10.8	383	10.3	270	20.3	279	8.7	226	4.7	108	15.4	189
24	6.6	179	25.6	509	15.3	269	14.7	366	14.0	272	13.1	275	10.8	271	9.5	251	8.0	250	7.2	195	6.3	132	5.2	190
25	6.7	241	17.9	299	16.2	289	14.0	177	14.2	309	12.1	304	13.2	325	11.5	213	8.2	225	6.7	304	5.6	134	4.7	105
26	5.1	117	13.7	261	10.5	304	9.8	283	7.6	294	10.4	387	11.6	348	8.2	215	14.0	277	9.0	244	4.6	205	8.4	175
27	5.7	225	10.6	187	12.6	296	8.5	305	9.3	387	9.5	320	12.1	353	7.0	203	6.4	190	10.0	221	4.8	132	4.9	102
28	5.3	113	14.7	318	12.5	259	9.7	345	12.8	332	8.5	247	10.1	265	7.9	302	7.0	219	7.0	204	5.1	148	4.7	156
29	5.0	189	...	...	15.1	255	10.0	318	9.7	227	10.6	273	11.4	385	7.9	147	8.1	199	6.7	223	4.9	150	4.1	76
30	2.5	163	...	...	10.1	252	10.1	224	12.6	362	10.1	279	13.5	462	6.3	188	6.1	141	6.4	137	3.6	106	4.9	89
31	11.5	216	...	...	11.6	206	...	...	10.4	237	...	...	8.6	253	5.5	248	...	...	7.4	134	...	...	5.0	136
Means	5.2	151	9.4	224	10.7	227	11.3	260	11.5	287	11.1	299	12.4	331	9.8	257	9.5	256	8.2	216	6.8	177	6.8	155

The mean of twelve monthly values is, for Declination 9.39, and for Horizontal Force 236.7.

**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  $\cdot 00001$  of the whole Horizontal and Vertical Forces respectively. The results for Horizontal Force and Vertical Force are corrected for temperature.)

Month, 1906.	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 .....	4.0	120	15	23.6	591	99
February .....	7.1	166	50	41.0	867	321
March .....	9.0	177	47	52.8	1057	247
April .....	10.6	212	67	57.9	1166	347
May .....	10.6	250	74	53.9	1516	407
June .....	10.3	258	59	56.2	1588	306
July .....	11.2	266	55	62.1	1674	278
August .....	9.1	208	44	47.1	1311	224
September .....	7.7	209	39	41.7	1206	200
October .....	7.1	166	30	40.2	1047	146
November .....	5.6	110	16	31.2	669	99
December .....	5.6	83	10	27.6	402	71
Means .....	8.16	185.4	42.2	44.61	1091.2	228.8



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.

Table with 10 columns: Month, 1906., m, a1, b1, a2, b2, a3, b3, a4, b4. It is divided into three sections: DECLINATION WEST, HORIZONTAL FORCE, and VERTICAL FORCE, each with monthly and yearly data.

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

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

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

(in which  $t$  and  $t'$  are the times from Greenwich mean midnight and apparent midnight respectively, converted into arc at the rate of  $15^\circ$  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  $\cdot 00001$  of the whole Horizontal and Vertical Forces respectively.

Month, 1906.	$m$	$c_1$	$a$	$a'$	$c_2$	$\beta$	$\beta'$	$c_3$	$\gamma$	$\gamma'$	$c_4$	$\delta$	$\delta'$
DECLINATION WEST.													
January .....	1.19	1.32	238.51	241.10	0.82	21.30	26.8	0.40	246.34	253.32	0.32	48.7	57.24
February .....	2.82	2.39	247.53	251.22	1.54	4.56	11.55	0.68	230.16	240.44	0.41	42.12	56.10
March .....	3.05	2.90	233.0	235.12	2.06	19.57	24.21	1.20	215.49	222.26	0.51	34.2	42.51
April .....	4.35	3.16	219.49	219.53	2.46	25.47	25.56	1.16	220.19	220.32	0.48	61.1	61.19
May .....	4.63	3.10	217.10	216.18	2.55	49.23	47.39	0.96	249.31	246.55	0.12	68.12	64.44
June .....	4.63	3.34	211.9	211.12	2.32	40.47	40.53	0.83	238.26	238.36	0.09	114.21	114.34
July .....	4.80	3.75	213.58	215.19	2.53	46.7	48.49	0.71	235.42	239.45	0.08	29.59	35.23
August .....	3.48	2.69	226.41	227.40	2.14	52.33	54.31	0.89	245.38	248.35	0.23	55.51	59.47
September .....	2.58	2.30	240.41	239.30	1.74	49.5	46.42	0.96	248.14	244.40	0.40	78.41	73.55
October .....	2.39	2.06	243.21	239.53	1.73	37.3	30.7	0.86	232.20	221.57	0.57	69.17	55.26
November .....	1.72	1.82	249.26	245.44	1.13	31.0	23.35	0.62	245.3	233.56	0.40	57.37	42.48
December .....	2.43	1.86	265.45	264.39	0.81	11.11	8.58	0.43	267.59	264.40	0.38	56.54	52.28
For the Year .....	2.76	2.46	230.20	230.20	1.76	35.29	35.29	0.79	236.51	236.51	0.32	56.43	56.43
HORIZONTAL FORCE.													
January .....	79.1	32.1	79.44	82.3	27.1	281.38	286.16	12.1	155.20	162.18	6.2	338.43	348.0
February .....	105.4	50.7	65.46	69.15	34.8	277.32	284.31	20.5	119.57	130.25	6.6	323.4	337.2
March .....	127.0	63.5	101.49	104.1	35.7	287.40	292.4	21.1	148.36	155.13	9.8	349.44	358.33
April .....	146.3	72.6	116.57	117.1	39.5	286.4	286.13	21.7	148.54	149.7	11.1	7.31	7.49
May .....	143.3	99.3	135.21	134.29	39.5	297.12	295.28	11.0	211.30	208.54	3.0	87.18	83.50
June .....	154.1	101.4	130.35	130.38	42.4	308.25	308.31	12.1	189.30	189.40	6.0	64.22	64.35
July .....	163.0	104.9	135.27	136.48	49.7	314.5	316.47	9.6	206.50	210.53	3.3	82.24	87.48
August .....	133.1	86.0	137.11	138.10	28.0	348.51	350.49	16.9	209.41	212.38	8.7	43.31	47.27
September .....	138.4	78.5	126.37	125.26	30.5	330.4	327.41	17.5	204.24	200.50	9.1	33.10	28.24
October .....	116.5	65.3	98.4	94.36	27.7	296.28	289.32	18.8	165.13	154.50	9.3	13.46	359.55
November .....	80.0	37.7	95.28	91.46	25.7	292.31	285.6	12.2	137.36	126.29	10.6	31.10	16.21
December .....	46.8	17.0	55.29	54.23	22.3	304.33	302.20	8.1	147.41	144.22	7.7	20.52	16.26
For the Year .....	110.0	62.2	117.24	117.24	31.8	301.36	301.36	13.0	167.10	167.10	6.6	19.41	19.41
VERTICAL FORCE.													
January .....	6.2	6.0	196.30	198.49	1.7	281.9	285.47	1.1	106.7	113.5	1.2	238.2	247.19
February .....	22.3	18.4	160.29	163.58	10.5	258.38	265.37	2.0	73.29	83.57	2.4	257.30	271.28
March .....	29.5	12.0	128.10	130.22	12.2	246.39	251.3	6.4	80.8	86.45	3.4	240.44	249.33
April .....	48.2	16.8	97.38	97.42	18.8	252.55	253.4	7.8	88.47	89.0	3.9	276.27	276.45
May .....	50.1	22.6	109.37	108.45	18.6	268.35	266.51	6.6	113.11	110.35	2.0	291.35	288.7
June .....	38.6	14.9	111.55	111.58	16.7	256.50	256.56	5.8	99.18	99.28	1.8	250.58	251.11
July .....	32.6	12.4	113.40	115.1	16.6	261.26	264.8	4.7	78.25	82.28	0.4	220.36	226.0
August .....	27.3	6.1	122.35	123.34	13.7	257.21	259.19	6.2	89.41	92.38	1.4	278.57	282.53
September .....	24.5	6.8	133.51	132.40	12.3	263.57	261.34	4.6	103.56	100.22	2.2	289.11	284.25
October .....	19.1	6.3	134.21	130.53	7.5	259.25	252.29	4.7	91.25	81.2	2.3	280.54	267.3
November .....	9.5	4.5	164.56	161.14	2.6	247.56	240.31	3.3	136.27	125.20	1.6	283.5	268.16
December .....	5.0	3.2	184.44	183.38	2.8	258.0	255.47	1.8	126.20	123.1	0.6	256.21	251.55
For the Year .....	25.8	9.7	127.23	127.23	11.1	258.44	258.44	4.4	96.4	96.4	1.8	267.16	267.16

TABLE XVII.—RESULTS of OBSERVATIONS of MAGNETIC DIP made in the MAGNETIC PAVILION in the YEAR 1906.

Greenwich Civil Time, 1906.	3-inch Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1906.	3-inch Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1906.	3-inch Needle.	Magnetic Dip.	Observer.
Jan. d h				May d h				Sept. d h			
2. 12	D <sub>1</sub>	66. 56. 30	E	1. 12	D <sub>1</sub>	66. 53. 0	E	4. 12	D <sub>1</sub>	66. 55. 21	E
4. 12	D <sub>2</sub>	66. 54. 6	E	5. 11	D <sub>2</sub>	66. 57. 0	E	5. 12	D <sub>2</sub>	66. 54. 21	E
9. 12	D <sub>1</sub>	66. 55. 9	E	7. 12	D <sub>1</sub>	66. 53. 56	E	7. 12	D <sub>1</sub>	66. 58. 55	E
9. 12	D <sub>2</sub>	66. 56. 24	E	8. 12	D <sub>2</sub>	66. 55. 20	E	10. 12	D <sub>2</sub>	66. 53. 44	E
12. 12	D <sub>1</sub>	66. 57. 20	E	11. 12	D <sub>1</sub>	66. 52. 34	E	12. 12	D <sub>1</sub>	66. 56. 3	E
15. 13	D <sub>2</sub>	66. 54. 50	E	14. 12	D <sub>2</sub>	66. 57. 44	E	14. 12	D <sub>2</sub>	66. 55. 26	E
17. 14	D <sub>2</sub>	66. 57. 20	B	18. 14	D <sub>2</sub>	66. 54. 22	B	18. 12	D <sub>2</sub>	66. 56. 28	B
19. 12	D <sub>1</sub>	66. 52. 54	B	21. 15	D <sub>1</sub>	66. 59. 25	B	20. 12	D <sub>1</sub>	66. 55. 5	B
22. 11	D <sub>2</sub>	66. 56. 26	B	23. 13	D <sub>2</sub>	66. 56. 26	B	22. 13	D <sub>2</sub>	66. 55. 33	B
24. 14	D <sub>1</sub>	66. 56. 4	B	25. 12	D <sub>1</sub>	66. 56. 32	B	24. 12	D <sub>1</sub>	66. 55. 55	B
26. 12	D <sub>2</sub>	66. 59. 41	B	28. 12	D <sub>2</sub>	66. 57. 0	B	26. 13	D <sub>2</sub>	66. 56. 26	B
29. 12	D <sub>1</sub>	66. 53. 40	B	30. 12	D <sub>1</sub>	66. 54. 1	B	28. 15	D <sub>1</sub>	66. 54. 12	B
Feb. 5. 12	D <sub>1</sub>	66. 54. 6	B	June 5. 12	D <sub>1</sub>	66. 56. 35	B	Oct. 1. 15	D <sub>1</sub>	66. 58. 55	B
5. 13	D <sub>2</sub>	66. 57. 8	B	6. 13	D <sub>2</sub>	66. 55. 55	B	3. 12	D <sub>2</sub>	66. 56. 34	B
8. 12	D <sub>1</sub>	66. 56. 52	B	7. 10	D <sub>1</sub>	66. 53. 39	B	6. 11	D <sub>1</sub>	66. 57. 12	B
8. 13	D <sub>2</sub>	66. 58. 2	B	11. 15	D <sub>2</sub>	66. 57. 42	B	9. 15	D <sub>2</sub>	66. 57. 0	B
13. 10	D <sub>1</sub>	66. 53. 21	B	12. 16	D <sub>1</sub>	66. 55. 33	B	11. 13	D <sub>1</sub>	66. 58. 25	B
13. 10	D <sub>2</sub>	66. 58. 59	B	13. 15	D <sub>2</sub>	66. 51. 39	B	13. 11	D <sub>2</sub>	66. 55. 37	B
15. 12	D <sub>2</sub>	66. 56. 46	E	18. 12	D <sub>2</sub>	66. 57. 23	E	17. 12	D <sub>2</sub>	66. 54. 9	E
16. 12	D <sub>1</sub>	66. 53. 25	E	21. 12	D <sub>1</sub>	66. 51. 53	E	19. 12	D <sub>1</sub>	66. 57. 23	E
20. 12	D <sub>2</sub>	66. 56. 7	E	22. 12	D <sub>2</sub>	66. 55. 12	E	22. 12	D <sub>2</sub>	66. 55. 46	E
23. 12	D <sub>1</sub>	66. 53. 39	E	25. 12	D <sub>1</sub>	66. 51. 41	E	25. 12	D <sub>1</sub>	66. 55. 47	E
26. 12	D <sub>2</sub>	66. 57. 38	E	27. 12	D <sub>2</sub>	66. 56. 51	E	29. 12	D <sub>2</sub>	66. 55. 21	E
27. 12	D <sub>1</sub>	66. 56. 32	E	28. 12	D <sub>1</sub>	66. 53. 32	E	30. 12	D <sub>1</sub>	66. 55. 19	E
Mar. 2. 12	D <sub>1</sub>	66. 55. 9	E	July 2. 13	D <sub>1</sub>	66. 57. 19	E	Nov. 2. 12	D <sub>1</sub>	66. 59. 3	E
6. 12	D <sub>2</sub>	66. 54. 39	E	4. 12	D <sub>2</sub>	66. 56. 4	E	5. 12	D <sub>2</sub>	66. 54. 9	E
7. 12	D <sub>1</sub>	66. 53. 17	E	6. 12	D <sub>1</sub>	66. 54. 23	E	7. 12	D <sub>1</sub>	66. 57. 59	E
8. 12	D <sub>2</sub>	66. 55. 15	E	9. 12	D <sub>2</sub>	66. 57. 3	E	9. 12	D <sub>2</sub>	66. 53. 15	E
13. 12	D <sub>1</sub>	66. 53. 13	E	11. 12	D <sub>1</sub>	66. 51. 51	E	12. 13	D <sub>2</sub>	66. 58. 1	E
13. 13	D <sub>2</sub>	66. 56. 2	E	13. 12	D <sub>2</sub>	66. 53. 58	E	13. 12	D <sub>2</sub>	66. 52. 37	E
16. 14	D <sub>2</sub>	66. 59. 5	B	17. 13	D <sub>2</sub>	66. 55. 57	B	17. 11	D <sub>2</sub>	66. 54. 44	B
19. 13	D <sub>1</sub>	66. 54. 37	B	20. 10	D <sub>1</sub>	66. 55. 56	B	19. 15	D <sub>1</sub>	66. 53. 41	B
21. 16	D <sub>2</sub>	66. 56. 46	B	23. 11	D <sub>2</sub>	66. 55. 17	B	22. 12	D <sub>2</sub>	66. 55. 58	B
23. 12	D <sub>1</sub>	66. 51. 58	B	25. 12	D <sub>1</sub>	66. 53. 7	B	24. 12	D <sub>1</sub>	66. 54. 59	B
26. 10	D <sub>2</sub>	66. 59. 21	B	27. 15	D <sub>2</sub>	66. 54. 54	B	27. 11	D <sub>2</sub>	66. 53. 43	B
29. 15	D <sub>1</sub>	66. 52. 30	B	30. 15	D <sub>1</sub>	66. 51. 1	B	29. 15	D <sub>1</sub>	66. 54. 59	B
Apr. 2. 12	D <sub>1</sub>	66. 52. 22	B	Aug. 1. 15	D <sub>1</sub>	66. 53. 28	B	Dec. 3. 15	D <sub>1</sub>	66. 54. 12	B
4. 15	D <sub>2</sub>	66. 57. 41	B	3. 12	D <sub>2</sub>	66. 51. 30	B	5. 13	D <sub>2</sub>	66. 54. 10	B
6. 12	D <sub>1</sub>	66. 53. 43	B	7. 15	D <sub>1</sub>	66. 53. 8	B	7. 13	D <sub>1</sub>	66. 52. 56	B
9. 11	D <sub>2</sub>	66. 58. 55	B	9. 12	D <sub>2</sub>	66. 55. 44	B	11. 12	D <sub>2</sub>	66. 52. 13	E
12. 13	D <sub>1</sub>	66. 53. 57	B	11. 13	D <sub>1</sub>	66. 49. 39	B	13. 12	D <sub>1</sub>	66. 56. 17	E
14. 12	D <sub>2</sub>	66. 57. 7	B	13. 15	D <sub>2</sub>	66. 56. 40	B	15. 12	D <sub>2</sub>	66. 52. 11	E
18. 12	D <sub>2</sub>	66. 54. 24	E	16. 12	D <sub>2</sub>	66. 54. 33	E	18. 12	D <sub>2</sub>	66. 53. 35	E
20. 12	D <sub>1</sub>	66. 52. 18	E	20. 12	D <sub>1</sub>	66. 57. 19	E	19. 12	D <sub>1</sub>	66. 53. 49	E
23. 12	D <sub>2</sub>	66. 55. 26	E	23. 12	D <sub>2</sub>	66. 54. 34	E	21. 12	D <sub>2</sub>	66. 54. 49	E
24. 12	D <sub>1</sub>	66. 56. 26	E	24. 12	D <sub>1</sub>	66. 56. 28	E	24. 13	D <sub>1</sub>	66. 55. 49	B
26. 12	D <sub>2</sub>	66. 52. 43	E	27. 13	D <sub>2</sub>	66. 55. 41	E	27. 13	D <sub>2</sub>	66. 53. 13	B
27. 12	D <sub>1</sub>	66. 56. 49	E	30. 12	D <sub>1</sub>	66. 55. 14	E	31. 15	D <sub>1</sub>	66. 56. 0	B

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

TABLE XVIII.—MONTHLY and YEARLY MEANS of MAGNETIC DIP in the YEAR 1906.

Monthly Means of Magnetic Dip.				
Month, 1906.	$D_{3\text{-inch}}$ Needle.	Number of Observations.	$D_{3\text{-inch}}$ Needle.	Number of Observations.
January .....	66. 55. 16	6	66. 56. 28	6
February .....	66. 54. 39	6	66. 57. 27	6
March .....	66. 53. 27	6	66. 56. 51	6
April .....	66. 54. 16	6	66. 56. 3	6
May .....	66. 54. 55	6	66. 56. 19	6
June .....	66. 53. 49	6	66. 55. 47	6
July .....	66. 53. 56	6	66. 55. 32	6
August .....	66. 54. 13	6	66. 54. 47	6
September .....	66. 55. 55	6	66. 55. 20	6
October .....	66. 57. 10	6	66. 55. 44	6
November .....	66. 56. 27	6	66. 54. 4	6
December .....	66. 54. 50	6	66. 53. 22	6
Means .....	66. 54. 54	Sum 72	66. 55. 39	Sum 72
Mean Annual Dip .....	66. 55. 17			

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 1906.

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, 1906.	Distances of Centres of Magnets.	Temperature Fahrenheit.	Observed Deflexion.	Mean of the Times of Vibration of Deflecting Magnet.	Number of Vibrations.	Temperature Fahrenheit.	Observer.
January 8. 15 <sup>d h</sup>	ft. 1'0 1'3	48'2	9. 38. 48 4. 22. 46	5'800 5'802	100 100	49'0 49'9	E
January 22. 15	1'0 1'3	42'0	9. 38. 55 4. 22. 48	5'794 5'796	100 100	42'1 43'3	B
February 8. 15	1'0 1'3	48'7	9. 38. 42 4. 22. 40	5'798 5'802	100 100	49'1 49'7	B
February 20. 15	1'0 1'3	45'8	9. 39. 22 4. 23. 2	5'805 5'802	100 100	46'3 47'7	E
March 8. 15	1'0 1'3	52'0	9. 38. 44 4. 22. 46	5'804 5'805	100 100	52'0 52'7	E
March 22. 15	1'0 1'3	45'0	9. 38. 47 4. 22. 50	5'794 5'794	100 100	44'8 45'4	B
April 6. 15	1'0 1'3	59'8	9. 37. 5 4. 22. 0	5'802 5'804	100 100	60'0 61'0	B
April 24. 15	1'0 1'3	43'2	9. 39. 26 4. 23. 6	5'797 5'798	100 100	44'0 45'6	E
May 7. 15	1'0 1'3	60'8	9. 36. 33 4. 21. 49	5'802 5'806	100 100	62'5 64'3	E
May 25. 15	1'0 1'3	61'5	9. 36. 57 4. 22. 2	5'806 5'806	100 100	61'7 63'5	B
June 7. 12	1'0 1'3	66'1	9. 36. 51 4. 22. 4	5'810 5'808	100 100	65'7 67'7	B
June 25. 15	1'0 1'3	67'0	9. 35. 27 4. 21. 21	5'806 5'804	100 100	67'5 69'1	E
July 9. 15	1'0 1'3	71'0	9. 35. 31 4. 21. 17	5'813 5'811	100 100	72'1 73'0	E
July 23. 15	1'0 1'3	77'4	9. 34. 35 4. 20. 51	5'810 5'812	100 100	77'9 79'2	B
August 8. 15	1'0 1'3	80'4	9. 34. 34 4. 20. 53	5'816 5'816	100 100	80'2 82'0	B
August 23. 15	1'0 1'3	76'0	9. 34. 36 4. 20. 51	5'811 5'814	100 100	77'1 76'2	E
September 7. 15	1'0 1'3	72'7	9. 35. 9 4. 21. 9	5'813 5'812	100 100	74'0 75'1	E
September 24. 15	1'0 1'3	59'9	9. 37. 5 4. 22. 10	5'813 5'811	100 100	59'7 60'7	B
October 8. 15	1'0 1'3	65'1	9. 36. 21 4. 21. 52	5'810 5'810	100 100	65'3 64'9	B
October 22. 15	1'0 1'3	65'5	9. 36. 46 4. 21. 39	5'811 5'817	100 100	66'9 67'7	E
November 7. 15	1'0 1'3	52'3	9. 37. 1 4. 22. 14	5'806 ...	100 ...	52'6 ...	E
November 22. 15	1'0 1'3	61'8	9. 36. 40 4. 21. 55	5'816 5'812	100 100	62'8 63'2	B
December 7. 15	1'0 1'3	44'5	9. 38. 0 4. 22. 30	5'797 5'799	100 100	44'1 44'7	B
December 21. 14	1'0 1'3	44'0	9. 37. 54 4. 22. 24	5'801 5'799	100 100	43'9 44'7	E

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

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

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

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

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

Greenwich Civil Time, 1906.	In English Measure.									In Metric Measure.	
	Apparent Value of A <sub>1</sub> .	Apparent Value of A <sub>2</sub> .	Apparent Value of P.	Mean Value of P.	Log. $\frac{m}{X}$ .	Corrected Time of Vibration of Deflecting Magnet.	Log. $m X$ .	Value of $m$ .	Value of Horizontal Force $X$ .	Value of Horizontal Force.	
										As observed.	Reduced to Mean of Month.
d h						s					
Jan. 8. 15	0.08396	0.08405	-0.00259	0.00312	8.92538	5.8049	0.13325	0.3383	4.0173	1.8523	1.8521
Jan. 22. 15	0.08389	0.08397	-0.00243		8.92500	5.8026	0.13365	0.3383	4.0209	1.8540	1.8560
Feb. 8. 15	0.08395	0.08403	-0.00209		8.92530	5.8036	0.13343	0.3384	4.0185	1.8528	1.8521
Feb. 20. 15	0.08401	0.08410	-0.00282		8.92564	5.8087	0.13265	0.3382	4.0133	1.8505	1.8514
Mar. 8. 15	0.08400	0.08410	-0.00288		8.92563	5.8072	0.13291	0.3383	4.0146	1.8511	1.8488
Mar. 22. 15	0.08391	0.08403	-0.00327		8.92520	5.8018	0.13369	0.3384	4.0201	1.8536	1.8550
Apr. 6. 15	0.08388	0.08397	-0.00271		8.92498	5.8043	0.13340	0.3382	4.0199	1.8535	1.8536
Apr. 24. 15	0.08398	0.08409	-0.00310		8.92552	5.8058	0.13309	0.3383	4.0159	1.8517	1.8531
May 7. 15	0.08382	0.08393	-0.00321		8.92469	5.8023	0.13370	0.3328	4.0225	1.8547	1.8548
May 25. 15	0.08389	0.08401	-0.00361		8.92510	5.8060	0.13316	0.3382	4.0182	1.8527	1.8519
June 7. 12	0.08394	0.08409	-0.00451		8.92544	5.8075	0.13295	0.3382	4.0156	1.8515	1.8559
June 25. 15	0.08375	0.08387	-0.00350		8.92438	5.8026	0.13370	0.3381	4.0240	1.8554	1.8514
July 9. 15	0.08382	0.08391	-0.00259		8.92466	5.8078	0.13294	0.3379	4.0192	1.8532	1.8523
July 23. 15	0.08378	0.08386	-0.00248		8.92444	5.8036	0.13361	0.3381	4.0233	1.8551	1.8501
Aug. 8. 15	0.08382	0.08392	-0.00282		8.92468	5.8086	0.13289	0.3379	4.0188	1.8530	1.8540
Aug. 23. 15	0.08376	0.08385	-0.00243		8.92434	5.8059	0.13326	0.3379	4.0222	1.8546	1.8521
Sept. 7. 15	0.08379	0.08389	-0.00288		8.92452	5.8074	0.13303	0.3379	4.0202	1.8537	1.8510
Sept. 24. 15	0.08388	0.08403	-0.00423		8.92512	5.8134	0.13205	0.3377	4.0129	1.8503	1.8516
Oct. 8. 15	0.08385	0.08401	-0.00462		8.92500	5.8076	0.13293	0.3380	4.0175	1.8524	1.8501
Oct. 22. 15	0.08392	0.08394	-0.00079		8.92500	5.8099	0.13259	0.3379	4.0160	1.8517	1.8529
Nov. 7. 15	0.08376	0.08394	-0.00508	8.92458	5.8078	0.13284	0.3378	4.0191	1.8531	1.8510	
Nov. 22. 15	0.08385	0.08397	-0.00372	8.92490	5.8122	0.13223	0.3377	4.0148	1.8511	1.8516	
Dec. 7. 15	0.08379	0.08391	-0.00344	8.92459	5.8051	0.13318	0.3380	4.0206	1.8538	1.8520	
Dec. 21. 14	0.08376	0.08387	-0.00299	8.92443	5.8071	0.13289	0.3378	4.0200	1.8536	1.8534	
Means ...	...	...	...	...	...	...	...	...	4.0186	1.8529	1.8524

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 2, 3, 20, 24, 29, February 3, 13, 14, 20, 22, March 2, 16, 20, 21, 22, April 6, 7, 15, 16, 27, May 5, 7, 17, 23, 26, June 6, 10, 14, 23, 27, July 3, 9, 16, 20, 22, August 5, 6, 18, 23, 30, September 8, 9, 10, 19, 28, October 10, 17, 18, 20, 24, November 2, 14, 16, 17, 27, December 1, 5, 18, 25, 30.

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  $\frac{1}{10000}$  of the whole Horizontal or Vertical Force, and for the latter  $\frac{1}{10000}$  of the Metric Unit, or  $\frac{1}{100000}$  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 1.8524 and 4.3474 respectively for the year.

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

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

1906.														
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June	July.	August	September.	October.	November.	December.	For the Year.	
Midnight.	0.7	1.8	2.6	3.7	4.4	4.6	4.7	2.9	2.2	1.6	0.5	0.6	2.38	
1 <sup>h</sup>	0.8	2.4	3.1	3.7	3.8	4.9	4.3	2.7	2.5	2.0	1.1	1.0	2.54	
2	0.7	2.5	3.3	3.6	3.9	4.6	4.1	3.0	2.7	1.9	1.3	1.1	2.58	
3	0.6	2.1	3.3	3.3	3.8	4.7	3.4	2.9	2.6	2.0	1.3	1.2	2.45	
4	0.6	2.1	3.5	3.2	2.9	3.6	2.6	2.2	2.4	2.1	1.3	1.2	2.16	
5	0.5	1.8	3.3	3.1	1.1	2.0	1.4	1.1	2.0	1.7	0.7	1.0	1.49	
6	0.5	1.5	2.8	2.4	0.7	1.0	0.3	0.5	1.6	1.4	0.4	0.7	1.00	
7	0.3	1.0	1.8	1.0	0.0	0.4	0.0	0.0	0.6	1.0	0.3	0.5	0.42	
8	0.0	0.3	0.3	0.0	0.5	0.0	0.4	0.0	0.0	0.0	0.0	0.3	0.00	
9	0.3	0.0	0.0	0.2	2.0	1.3	1.5	1.3	0.4	0.0	0.1	0.1	0.45	
10	1.4	1.3	1.4	1.8	4.9	3.6	3.6	3.6	1.9	2.0	1.4	1.1	2.18	
11	2.7	3.6	3.6	4.9	7.6	7.0	6.6	6.3	4.6	4.6	3.7	2.5	4.66	
Noon.	3.8	5.1	6.6	8.3	9.6	9.8	9.2	8.2	7.5	6.8	5.2	3.5	6.82	
13 <sup>h</sup>	4.7	6.3	8.1	10.1	9.9	11.0	10.4	8.6	7.8	7.0	5.5	3.7	7.61	
14	4.4	5.5	8.6	9.8	8.9	11.4	11.0	7.9	6.7	6.0	4.6	3.1	7.18	
15	3.1	4.6	8.1	8.0	7.4	10.2	10.0	6.4	5.6	4.6	3.3	2.3	5.98	
16	2.1	3.3	7.0	6.2	5.6	9.1	7.9	4.6	4.4	3.3	2.6	1.8	4.67	
17	2.0	3.0	5.4	4.9	4.6	7.5	5.6	3.6	3.6	3.0	2.0	1.4	3.73	
18	1.8	2.7	4.7	4.2	4.2	6.2	4.5	3.2	3.6	2.4	1.6	1.2	3.21	
19	1.6	2.6	4.2	4.0	4.5	5.5	4.5	3.4	3.4	2.4	1.3	0.8	3.03	
20	1.3	2.2	3.5	3.7	4.7	5.3	4.9	3.3	2.8	2.2	1.0	0.5	2.80	
21	1.0	1.6	3.2	3.8	4.6	5.3	4.7	3.1	2.9	1.9	0.3	0.1	2.56	
22	0.9	1.3	3.0	3.7	4.7	5.2	4.8	3.2	3.1	1.3	0.4	0.0	2.48	
23	0.9	1.3	2.9	3.6	4.7	5.1	4.6	3.2	3.1	1.2	0.7	0.0	2.46	
24	0.9	1.5	2.7	3.7	4.7	4.9	4.7	3.3	3.2	1.5	0.8	0.4	2.54	
Means	0 <sup>h</sup> -23 <sup>h</sup>	1.53	2.50	3.93	4.22	4.54	5.39	4.79	3.55	3.25	2.60	1.69	1.24	3.12
	1 <sup>h</sup> -24 <sup>h</sup>	1.54	2.48	3.93	4.22	4.55	5.40	4.79	3.57	3.29	2.60	1.70	1.23	3.13

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.)

1906.

Hour, Green- wich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		For the Year.	
	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m
Midn.	109	202	165	306	136	252	190	352	151	280	224	415	175	324	188	348	194	359	148	274	139	257	91	169	149.7	277.1
1 <sup>h</sup>	108	200	158	293	136	252	181	335	153	283	211	391	170	315	188	348	188	348	144	267	141	261	101	187	147.1	272.3
2	101	187	164	304	129	239	181	335	136	252	197	365	164	304	176	326	191	354	148	274	125	232	113	209	142.6	264.0
3	112	207	161	298	131	243	178	330	144	267	191	354	176	326	161	298	177	328	143	265	126	233	111	206	141.4	261.9
4	126	233	166	307	134	248	176	326	150	278	206	382	177	328	159	295	166	307	151	280	126	233	106	196	144.1	266.7
5	136	252	176	326	136	252	187	346	118	219	193	358	169	313	144	267	154	285	151	280	134	248	108	200	141.0	261.1
6	133	246	181	335	146	270	186	345	95	176	159	295	137	254	110	204	127	235	147	272	140	259	107	198	129.5	239.7
7	119	220	163	302	132	245	170	315	48	89	112	207	82	152	72	133	97	180	126	233	132	245	95	176	102.8	190.4
8	91	169	139	257	95	176	134	248	31	57	60	111	36	67	20	37	41	76	84	156	96	178	76	141	65.7	121.7
9	55	102	79	146	51	94	77	143	0	0	12	22	0	0	0	0	2	4	34	63	42	78	34	63	22.7	41.9
10	22	41	25	46	13	24	29	54	2	4	0	0	2	4	7	13	0	0	10	19	4	7	0	0	0.0	0.0
11	0	0	0	0	0	0	0	0	6	11	28	52	46	85	55	102	28	52	0	0	0	0	0	0	4.1	7.5
Noon.	9	17	3	6	9	17	28	52	65	120	52	96	93	172	129	239	88	163	40	74	32	59	18	33	37.7	69.6
13 <sup>h</sup>	68	126	46	85	47	87	93	172	101	187	95	176	141	261	166	307	106	196	100	185	66	122	49	91	80.3	148.6
14	101	187	86	159	92	170	140	259	128	237	129	239	180	333	191	354	126	233	137	254	84	156	70	130	112.5	208.2
15	114	211	123	228	114	211	163	302	162	300	164	304	236	437	193	358	171	317	149	276	95	176	68	126	136.5	252.8
16	118	219	147	272	132	245	174	322	183	339	194	359	275	509	194	359	187	346	135	250	93	172	63	117	148.4	274.7
17	125	232	151	280	128	237	173	320	202	374	209	387	283	524	206	382	169	313	141	261	127	235	80	148	156.7	290.0
18	141	261	164	304	140	259	177	328	217	402	233	432	269	498	221	409	175	324	164	304	138	256	80	148	167.1	309.4
19	140	259	174	322	149	276	190	352	221	409	257	476	265	491	219	406	189	350	159	295	144	267	69	128	171.8	318.2
20	138	256	181	335	159	295	212	393	213	395	233	432	261	483	227	420	183	339	163	302	147	272	67	124	172.5	319.5
21	140	259	172	319	148	274	204	379	209	387	221	409	247	458	236	437	179	332	171	317	146	270	61	113	168.3	311.8
22	138	256	164	304	150	278	192	356	196	363	229	424	237	439	222	411	179	332	177	328	134	248	51	94	162.9	301.7
23	129	239	154	285	150	278	190	352	200	370	227	420	223	413	214	396	167	309	183	339	144	267	53	98	160.0	296.1
24	130	241	157	291	139	257	198	367	198	367	220	408	219	406	224	415	173	320	193	358	162	300	70	130	164.1	304.0
Means 0 <sup>h</sup> -23 <sup>h</sup>	103.0	190.9	130.9	242.5	110.7	205.1	151.0	279.8	130.5	241.6	159.8	296.1	168.5	312.1	154.1	285.4	136.8	253.4	125.2	232.0	106.5	197.1	69.6	129.0	119.4	221.0
1 <sup>h</sup> -24 <sup>h</sup>	103.9	192.5	130.6	241.8	110.8	205.3	151.4	280.5	132.4	245.3	159.7	295.8	170.3	315.5	155.6	288.2	136.0	251.8	127.1	235.5	107.4	198.9	68.7	127.3	120.0	222.2



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.)

1906.

Hour, Green- wich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		For the Year.	
	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m
Midn.	11	48	27	117	54	235	61	265	43	187	41	178	41	178	21	91	35	152	24	104	17	74	4	17	30.1	130.7
1 <sup>h</sup>	9	39	23	100	46	200	59	256	43	187	41	178	39	170	15	65	33	143	24	104	11	48	0	0	27.1	117.7
2	11	48	25	109	49	213	57	248	41	178	41	178	38	165	21	91	35	152	22	96	13	57	0	0	27.9	121.4
3	11	48	29	126	49	213	59	256	44	191	41	178	36	157	24	104	35	152	20	87	13	57	0	0	28.6	124.3
4	9	39	29	126	47	204	66	287	50	217	47	204	48	209	24	104	37	161	20	87	11	48	4	17	31.2	135.4
5	11	48	29	126	45	196	62	270	52	226	49	213	48	209	28	122	39	170	20	87	11	48	6	26	31.8	138.6
6	5	22	23	100	45	196	64	278	48	209	52	226	52	226	30	130	46	200	20	87	11	48	2	9	31.7	137.7
7	9	39	23	100	47	204	70	304	44	191	52	226	48	209	32	139	50	217	24	104	8	35	4	17	32.8	142.3
8	15	65	25	109	53	230	68	296	36	157	50	217	44	191	34	148	48	209	26	113	10	43	6	26	33.1	143.8
9	13	57	21	91	41	178	58	252	20	87	36	157	30	130	20	87	34	148	18	78	10	43	2	9	23.7	103.2
10	11	48	9	39	33	143	36	157	4	17	22	96	18	78	10	43	14	61	6	26	4	17	0	0	12.4	53.9
11	3	13	3	13	21	91	14	61	2	9	0	0	2	9	6	26	0	0	0	0	0	0	2	9	2.9	12.8
Noon.	1	4	0	0	0	0	0	0	0	0	3	13	0	0	0	0	0	0	6	26	0	0	8	35	0.0	0.0
13 <sup>h</sup>	0	0	6	26	6	26	3	13	12	52	1	4	2	9	4	17	8	35	9	39	12	52	12	52	4.8	20.6
14	6	26	14	61	22	96	23	100	25	109	13	57	13	57	16	70	22	96	17	74	14	61	12	52	14.9	65.1
15	4	17	26	113	28	122	37	161	39	170	25	109	25	109	20	87	28	122	21	91	16	70	12	52	21.9	95.4
16	2	9	28	122	42	183	47	204	47	204	41	178	35	152	23	100	36	157	23	100	16	70	10	43	27.7	120.3
17	4	17	24	104	48	209	57	248	59	256	59	256	47	204	25	109	32	139	24	104	20	87	7	30	32.3	140.4
18	6	26	24	104	50	217	59	256	59	256	57	248	55	239	21	91	29	126	24	104	18	78	8	35	32.7	141.8
19	4	17	28	122	50	217	61	265	59	256	59	256	51	222	15	65	34	148	28	122	20	87	8	35	33.3	144.5
20	4	17	30	130	50	217	63	274	57	248	53	230	43	187	15	65	38	165	24	104	19	83	6	26	32.0	139.0
21	0	0	31	135	55	239	63	274	55	239	55	239	39	170	12	52	36	157	26	113	25	109	6	26	32.1	139.6
22	0	0	29	126	55	239	59	256	62	270	51	222	39	170	14	61	32	139	22	96	29	126	8	35	31.8	138.5
23	4	17	29	126	57	248	58	252	58	252	51	222	37	161	14	61	32	139	24	104	29	126	6	26	31.7	138.0
24	4	17	27	117	57	248	56	243	58	252	47	204	35	152	15	65	34	148	18	78	25	109	4	17	30.2	131.0
Means 0 <sup>h</sup> -23 <sup>h</sup>	6.4	27.7	22.3	96.9	41.4	179.8	50.2	218.0	40.0	173.7	39.2	170.2	34.6	150.5	18.5	80.3	30.5	132.8	19.7	85.4	14.0	61.1	5.5	24.0	25.4	110.2
1 <sup>h</sup> -24 <sup>h</sup>	6.1	26.4	22.3	96.9	41.5	180.4	50.0	217.1	40.6	176.4	39.4	171.3	34.3	149.4	18.3	79.3	30.5	132.7	19.4	84.3	14.4	62.6	5.5	24.0	25.4	110.2

ROYAL OBSERVATORY, GREENWICH.

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MAGNETIC DISTURBANCES

AND

EARTH CURRENTS.

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1906.

MAGNETIC DISTURBANCES in DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE,  
recorded at the ROYAL OBSERVATORY, GREENWICH, in the Year 1906.

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

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

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

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

1906.

- January 4<sup>d</sup> 19 $\frac{1}{2}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 4'): in H.F. (+ .0010).  
 5<sup>d</sup> 23 $\frac{1}{2}$ <sup>h</sup> to 6<sup>d</sup> 2<sup>h</sup> Prolonged wave in Dec. (- 5').  
 6<sup>d</sup> 3<sup>h</sup> to 4<sup>h</sup> Wave in Dec. (+ 3'). 3 $\frac{1}{2}$ <sup>h</sup> to 5 $\frac{1}{2}$ <sup>h</sup> Prolonged wave in H.F. (+ .0012).  
 8<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> to 2 $\frac{1}{2}$ <sup>h</sup> Irregular wave in Dec. (- 6'). 0 $\frac{1}{2}$ <sup>h</sup> to 1 $\frac{3}{4}$ <sup>h</sup> Wave in H.F. (+ .0015), steep at commencement.  
 9<sup>d</sup> 21 $\frac{1}{2}$ <sup>h</sup> to 22 $\frac{1}{4}$ <sup>h</sup> Sharp wave in Dec. (- 5'): in H.F. small.  
 11<sup>d</sup> 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (- 3').  
 12<sup>d</sup> 15<sup>h</sup> to 17 $\frac{1}{4}$ <sup>h</sup> Prolonged regular wave in H.F. (- .0010).  
 13<sup>d</sup> 6 $\frac{1}{2}$ <sup>h</sup> to 8<sup>h</sup> Regular wave in Dec. (+ 3'). 12 $\frac{1}{2}$ <sup>h</sup> to 14<sup>h</sup> Small double-crested wave in H.F. (- .0010): in Dec. small. 19<sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 4').  
 14<sup>d</sup> 15<sup>h</sup> to 19<sup>h</sup> Prolonged irregular double wave in Dec. (+ 6' to - 4'): in H.F. prolonged wave (- .0012), with superposed fluctuations. 15 $\frac{1}{2}$ <sup>h</sup> to 16 $\frac{1}{4}$ <sup>h</sup> Increase of V.F. (+ .0003).  
 15<sup>d</sup> 14 $\frac{3}{4}$ <sup>h</sup> to 15 $\frac{3}{4}$ <sup>h</sup> Small wave in Dec. (- 3'). 22 $\frac{1}{2}$ <sup>h</sup> to 24<sup>h</sup> Wave in H.F. (+ .0016): in Dec. small. ;  
 21<sup>d</sup> 19 $\frac{1}{2}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Sharp crested wave in Dec. (- 4').  
 22<sup>d</sup> 20 $\frac{3}{4}$ <sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in Dec. (- 4'): in H.F. (+ .0010).  
 26<sup>d</sup> 22 $\frac{3}{4}$ <sup>h</sup> to 27<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 5'), sharp at commencement.  
 27<sup>d</sup> 4 $\frac{1}{2}$ <sup>h</sup> to 7<sup>h</sup> Double wave in Dec. (+ 2' to - 3'). 4 $\frac{1}{4}$ <sup>h</sup> to 8<sup>h</sup> Prolonged wave in H.F. (+ .0014).  
 28<sup>d</sup> 2<sup>h</sup> to 4<sup>h</sup> Double wave in Dec. (+ 2' to - 2'): in H.F. (- .0006 to + .0006).  
 31<sup>d</sup> 12<sup>h</sup> to Feb. 1<sup>d</sup> 12<sup>h</sup> See Plate I.
- February 1<sup>d</sup> 18 $\frac{1}{2}$ <sup>h</sup> to 21<sup>h</sup> Prolonged irregular wave in Dec. (- 5'): Triple wave in H.F. (- .0006), (+ .0008) and (- .0004).  
 2<sup>d</sup> 2<sup>h</sup> to 4<sup>h</sup> Double wave in Dec. (+ 2' to - 3'): prolonged shallow wave in HF. (+ .0010). 20 $\frac{1}{4}$ <sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Sharp wave in H.F. (+ .0014).

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- February 3<sup>d</sup> 19 $\frac{1}{4}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in H.F. (·0010): in Dec. small.
- 4<sup>d</sup> 1 $\frac{1}{2}$ <sup>h</sup> to 3 $\frac{3}{4}$ <sup>h</sup> Small double wave in Dec. (-2' to +2'): in H.F. (+·0004 to -·0006). 17 $\frac{3}{4}$ <sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (-7'). 20 $\frac{1}{2}$ <sup>h</sup> to 22<sup>h</sup> Wave in H.F. (+·0012).
- 5<sup>d</sup> 2 $\frac{1}{2}$ <sup>h</sup> to 3 $\frac{1}{2}$ <sup>h</sup> Small wave in Dec. (+3'). 20<sup>h</sup> to 23<sup>h</sup> Decrease of Dec. (5'). 21<sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Double wave in H.F. (+·0010 to -·0008). 5<sup>d</sup> 23<sup>h</sup> to 6<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+4'): small double-crested wave in H.F. (+·0010).
- 6<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> to 1 $\frac{1}{4}$ <sup>h</sup> Small wave in Dec. (+3'). 1 $\frac{1}{2}$ <sup>h</sup> to 2 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (+7'): in H.F. (+·0016). 2<sup>h</sup> to 3 $\frac{1}{4}$ <sup>h</sup> Wave in V.F. (-·0003). 3<sup>h</sup> to 5<sup>h</sup> Small double wave in Dec. (+2' to -2'): Sharp wave in H.F. (+·0018). 14 $\frac{1}{2}$ <sup>h</sup> to 16 $\frac{1}{2}$ <sup>h</sup> Shallow wave in H.F. (-·0010). 17 $\frac{1}{2}$ <sup>h</sup> to 18 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (-4'), sharp at commencement: small double wave in H.F. (-·0006 to +·0008).
- 7<sup>d</sup> 4 $\frac{1}{2}$ <sup>h</sup> to 6 $\frac{1}{2}$ <sup>h</sup> Shallow wave in Dec. (+3'). 21<sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in Dec. (-5'). 22 $\frac{1}{2}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (+·0014).
- 8<sup>d</sup> 11 $\frac{3}{4}$ <sup>h</sup> to 14<sup>h</sup> Prolonged shallow wave in H.F. (-·0010). 16<sup>h</sup> to 17 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (-·0012). 22<sup>h</sup> to 24<sup>h</sup> Shallow wave in Dec. (-3'), with superposed fluctuations. 22 $\frac{1}{2}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (+·0010).
- 9<sup>d</sup> 9 $\frac{1}{4}$ <sup>h</sup> to 10 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (-·0010). 14 $\frac{1}{4}$ <sup>h</sup> to 16<sup>h</sup> Wave in H.F. (-·0012).
- 10<sup>d</sup> 3 $\frac{3}{4}$ <sup>h</sup> to 9<sup>h</sup> Small fluctuations in Dec. and H.F. 17 $\frac{1}{2}$ <sup>h</sup> to 19<sup>h</sup> Wave in Dec. (-5'): in H.F. (-·0012). 21 $\frac{3}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (-3')
- 11<sup>d</sup> 2<sup>h</sup> to 3 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+4'): in H.F. small.
- 12<sup>d</sup> 16 $\frac{3}{4}$ <sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (-3'): in H.F. small.
- 14<sup>d</sup> 22 $\frac{1}{2}$ <sup>h</sup> to 15<sup>d</sup> 1<sup>h</sup> Shallow double-crested wave in Dec. (-3'): in H.F. small.
- 15<sup>d</sup> 8<sup>h</sup> to 10<sup>h</sup> Prolonged shallow wave in Dec. (-3'). 15 $\frac{1}{4}$ <sup>h</sup> to 17<sup>h</sup> Double wave in H.F. (+·0010 to -·0014). 16<sup>h</sup> to 18 $\frac{1}{2}$ <sup>h</sup> Double wave in Dec. (-5' to +2'). 17<sup>h</sup> to 18 $\frac{3}{4}$ <sup>h</sup> Double-crested wave in H.F. (-·0014). 18 $\frac{3}{4}$ <sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Double wave in Dec. (+3' to -5'). 18 $\frac{1}{2}$ <sup>h</sup> to 20<sup>h</sup> Wave in H.F. (-·0014). 20<sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Irregular wave in H.F. (-·0010), followed by sharp decrease (-·0015). 15<sup>d</sup> 21 $\frac{1}{4}$ <sup>h</sup> to 16<sup>d</sup> 0 $\frac{3}{4}$ <sup>h</sup> Double-crested wave in Dec. (-11'). 15<sup>d</sup> 23<sup>h</sup> to 16<sup>d</sup> 2 $\frac{1}{4}$ <sup>h</sup> Double wave in H.F. (-·0010 to +·0016).
- 16<sup>d</sup> 0 $\frac{3}{4}$ <sup>h</sup> to 2 $\frac{1}{4}$ <sup>h</sup> Sharp wave in Dec. (-6'). 18 $\frac{1}{4}$ <sup>h</sup> to 19 $\frac{3}{4}$ <sup>h</sup> Small double-crested wave in Dec. (+3'). 21 $\frac{1}{2}$ <sup>h</sup> to 23<sup>h</sup> Wave in Dec. (-4'). 16<sup>d</sup> 23 $\frac{1}{2}$ <sup>h</sup> to 17<sup>d</sup> 0 $\frac{3}{4}$ <sup>h</sup> Double-crested wave in H.F. (+·0010).
- 17<sup>d</sup> 23<sup>h</sup> to 24<sup>h</sup> Wave in H.F. (+·0012).
- 18<sup>d</sup> 22 $\frac{1}{2}$ <sup>h</sup> to 23<sup>h</sup> Sharp wave in H.F. (+·0014). 18<sup>d</sup> 23<sup>h</sup> to 19<sup>d</sup> 1 $\frac{1}{4}$ <sup>h</sup> Triple wave in Dec. (-3'), (+3') and (-7'): Double wave in H.F. (+·0016 to -·0010). 18<sup>d</sup> 23 $\frac{1}{2}$ <sup>h</sup> to 19<sup>d</sup> 1<sup>h</sup> Double wave in V.F. (+·0002 to -·0004)
- 19<sup>d</sup> 1 $\frac{3}{4}$ <sup>h</sup> to 4<sup>h</sup> Wave in Dec. (-6'). 2 $\frac{1}{2}$ <sup>h</sup> to 6 $\frac{1}{2}$ <sup>h</sup> Prolonged double-crested wave in H.F. (-·0012). 19<sup>d</sup> 4<sup>h</sup> to 6<sup>h</sup> Wave in Dec. (-3'). 8<sup>h</sup> to 10 $\frac{1}{2}$ <sup>h</sup> Small fluctuations in Dec. and H.F. 10 $\frac{3}{4}$ <sup>h</sup> to 11 $\frac{1}{2}$ <sup>h</sup> Sharp wave in Dec. (-4'). 10 $\frac{3}{4}$ <sup>h</sup> to 13<sup>h</sup> Double-crested wave in H.F. (-·0018). 14<sup>h</sup> to 16<sup>h</sup> Double-crested wave in H.F. (-·0032). 14 $\frac{3}{4}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in Dec. (+7'). 14 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Prolonged wave in V.F. (+·0012). 15 $\frac{1}{2}$ <sup>h</sup> to 17<sup>h</sup> Wave in Dec. (+5'). 16<sup>h</sup> to 17 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (-·0020). 17<sup>h</sup> to 18 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+7'), with superposed fluctuations. 17 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Irregular shallow wave in H.F. (+·0024), with superposed fluctuations. 18 $\frac{1}{2}$ <sup>h</sup> to 21<sup>h</sup> Irregular wave in Dec. (-5').
- 21<sup>d</sup> 22 $\frac{1}{4}$ <sup>h</sup> to 24<sup>h</sup> Wave in Dec. (-4'): in H.F. (+·0010).
- 23<sup>d</sup> 1 $\frac{1}{2}$ <sup>h</sup> to 3<sup>h</sup> Wave in H.F. (+·0016), steep at commencement. 8 $\frac{1}{4}$ <sup>h</sup> to 8 $\frac{1}{2}$ <sup>h</sup> Steep symmetrical wave in Dec. (+3'): Decrease of H.F. (-·0010).
- 24<sup>d</sup> 12<sup>h</sup> to 26<sup>d</sup> 12<sup>h</sup>. See Plate I.
- 26<sup>d</sup> 13<sup>h</sup> to 13 $\frac{1}{4}$ <sup>h</sup> Sharp wave in H.F. (+·0010). 18 $\frac{1}{4}$ <sup>h</sup> to 19 $\frac{3}{4}$ <sup>h</sup> Sharp double-crested wave in Dec. (-12'). 18 $\frac{1}{4}$ <sup>h</sup> to 19<sup>h</sup> Double wave in H.F. (+·0014 to +·0010), followed till 20 $\frac{1}{4}$ <sup>h</sup> by another (+·0012 to -·0008). 19 $\frac{3}{4}$ <sup>h</sup> to 20 $\frac{1}{4}$ <sup>h</sup> Sharp wave in Dec. (+4'). 20 $\frac{1}{2}$ <sup>h</sup> to 23<sup>h</sup> Irregular triple wave in Dec. (+4'), (-3') and (+4'). 21 $\frac{3}{4}$ <sup>h</sup> to 23 $\frac{3}{4}$ <sup>h</sup> Slow wave in V.F. (-·0004). 22 $\frac{1}{4}$ <sup>h</sup> to 23 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (+·0022), steep at commencement.
- 27<sup>d</sup> 20 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{3}{4}$ <sup>h</sup> Double-crested wave in H.F. (+·0014). 20 $\frac{3}{4}$ <sup>h</sup> to 22<sup>h</sup> Irregular wave in Dec. (-7'). 27<sup>d</sup> 22 $\frac{3}{4}$ <sup>h</sup> to 28<sup>d</sup> 1<sup>h</sup> Irregular wave in Dec. (-7'), steep at the end: double wave in H.F. (+·0022 to -·0018): small wave in V.F.
- 28<sup>d</sup> 8<sup>h</sup> to 10 $\frac{1}{2}$ <sup>h</sup> Triple-crested wave in Dec. (-4'). 8<sup>h</sup> to 9 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in H.F. (-·0010). 14 $\frac{1}{4}$ <sup>h</sup> to 15 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (-3'): in H.F. small. 15 $\frac{3}{4}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Slow wave in V.F. (+·0008). 16<sup>h</sup> to 16 $\frac{1}{4}$ <sup>h</sup> Sharp decrease in Dec. (-5'), followed till 16 $\frac{3}{4}$ <sup>h</sup> by sharp wave (-6'). 16<sup>h</sup> to 17<sup>h</sup> Double wave in H.F. (-·0013 to +·0013). 17 $\frac{3}{4}$ <sup>h</sup> to 18<sup>h</sup> Sharp wave in Dec. (+3'): in H.F. (-·0011). 18 $\frac{3}{4}$ <sup>h</sup> to 19<sup>h</sup> Decrease of Dec. (-5'). 18 $\frac{3}{4}$ <sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (+·0012). 19 $\frac{1}{2}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Sharp double wave in Dec. (-8' to +5'): sharp wave in H.F. (+·0032). 21 $\frac{3}{4}$ <sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (-4'): flat-crested wave in H.F. (+·0014).

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- 1<sup>d</sup> 0 $\frac{1}{4}$ <sup>h</sup> to 2 $\frac{1}{4}$ <sup>h</sup> Irregular double wave in Dec. (+ 3' to - 4'): irregular wave in H.F. (+ .0018): in V.F. small. 2 $\frac{3}{4}$ <sup>h</sup> to 5 $\frac{1}{4}$ <sup>h</sup> Irregular double wave in H.F. (+ .0015 to - .0008). 3 $\frac{1}{4}$ <sup>h</sup> to 4 $\frac{1}{2}$ <sup>h</sup> Flat-crested wave in Dec. (- 4'). 12<sup>h</sup> to 13 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (+ 4'): in H.F. (+ .0008). 15 $\frac{3}{4}$ <sup>h</sup> to 17 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (- .0013). 16 $\frac{1}{4}$ <sup>h</sup> to 17 $\frac{1}{4}$ <sup>h</sup> Double-crested wave in Dec. (- 4'). 19<sup>h</sup> to 20 $\frac{1}{4}$ <sup>h</sup> Double-crested wave in Dec. (- 3'). 20 $\frac{3}{4}$ <sup>h</sup> to 22 $\frac{1}{4}$ <sup>h</sup> Irregular double-crested wave in Dec. (- 5'), followed till 22 $\frac{1}{2}$ <sup>h</sup> by decrease in Dec. (- 5'). 21 $\frac{1}{4}$ <sup>h</sup> to 22 $\frac{1}{4}$ <sup>h</sup> Irregular wave in H.F. (+ .0020), steep at commencement. 22 $\frac{1}{2}$ <sup>h</sup> to 24<sup>h</sup> Triple wave in H.F. (+ .0008), (- .0006), and (+ .0006).
- 3<sup>d</sup> 21<sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in Dec. (- 3'): in H.F. small. 23 $\frac{1}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Sharp increase of H.F. (+ .0010).
- 4<sup>d</sup> 1 $\frac{1}{4}$ <sup>h</sup> to 2<sup>h</sup> Wave in Dec. (+ 3'): in H.F. (+ .0014). 2<sup>h</sup> to 4 $\frac{1}{2}$ <sup>h</sup> Double wave in Dec. (+ 8' to - 6'), with superposed fluctuations continuing until 12<sup>h</sup>. 2 $\frac{1}{2}$ <sup>h</sup> to 3 $\frac{1}{2}$ <sup>h</sup> Irregular wave in H.F. (+ .0028), with superposed fluctuations continuing until 16<sup>h</sup>. 2 $\frac{1}{4}$ <sup>h</sup> to 2 $\frac{3}{4}$ <sup>h</sup> Decrease of V.F. (- .0006). 12 $\frac{1}{2}$ <sup>h</sup> to 13 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (+ 3'): in H.F. small. 17 $\frac{1}{4}$ <sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (- .0012): in Dec. small. 19 $\frac{1}{4}$  to 20<sup>h</sup> Sharp wave in Dec. (- 6'). 19 $\frac{3}{4}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Sharp wave in H.F. (+ .0034), followed till 22 $\frac{1}{2}$ <sup>h</sup> by smaller ones. 20<sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Sharp decrease in Dec. (- 4'), followed till 22 $\frac{1}{4}$ <sup>h</sup> by two successive waves (- 4') and (- 4'). 4<sup>d</sup> 22 $\frac{1}{2}$ <sup>h</sup> to 5<sup>d</sup> 1 $\frac{3}{4}$ <sup>h</sup> Irregular double wave in Dec. (- 4' to + 6'): in H.F. (+ .0008 to - .0014), with small waves superposed.
- 5<sup>d</sup> 1 $\frac{3}{4}$ <sup>h</sup> to 3 $\frac{1}{4}$ <sup>h</sup> Irregular wave in Dec. (+ 3'): two successive waves in H.F. (- .0009) and (- .0013). 6 $\frac{3}{4}$ <sup>h</sup> to 8 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (- .0016). 10<sup>h</sup> to 11 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (- .0012). 15<sup>h</sup> to 15 $\frac{1}{4}$ <sup>h</sup> Sharp decrease of Dec. (- 5'): increase of H.F. (+ .0017). 15<sup>h</sup> to 18<sup>h</sup> Slow wave in V.F. (+ .0004). 20 $\frac{1}{2}$ <sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 6').
- 6<sup>d</sup> 15 $\frac{3}{4}$ <sup>h</sup> to 17<sup>h</sup> Slow wave in Dec. (- 3'). 6<sup>d</sup> 23 $\frac{1}{2}$ <sup>h</sup> to 7<sup>d</sup> 0 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (+ .0012).
- 7<sup>d</sup> 1<sup>h</sup> to 6<sup>h</sup> Slow decrease of V.F. (- .0008). 1 $\frac{1}{4}$ <sup>h</sup> to 2 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 5'), followed till 6<sup>h</sup> by an irregular slow many-crested wave (+ 6'), with superposed fluctuations continuing until 17<sup>h</sup>. 2 $\frac{1}{2}$ <sup>h</sup> to 4<sup>h</sup> Wave in H.F. (- .0020). 4 $\frac{1}{2}$ <sup>h</sup> to 5 $\frac{1}{4}$ <sup>h</sup> Sharp flat-crested wave in H.F. (- .0012), followed by fluctuations until 17<sup>h</sup>. 6<sup>h</sup> to 8<sup>h</sup> Increase in V.F. (+ .0006). 15<sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Increase in V.F. (+ .0004). 19<sup>h</sup> to 20 $\frac{3}{4}$ <sup>h</sup> Sharp wave in Dec. (- 10'). 19 $\frac{3}{4}$ <sup>h</sup> to 20 $\frac{3}{4}$ <sup>h</sup> Steep wave in H.F. (+ .0026). 20 $\frac{3}{4}$ <sup>h</sup> to 22<sup>h</sup> Sharp wave in Dec. (- 7'): in H.F. (+ .0020), both followed by small waves.
- 8<sup>d</sup> 4<sup>h</sup> to 5<sup>h</sup> Wave in H.F. (- .0010). 7<sup>h</sup> to 15<sup>h</sup> Fluctuations in Dec. and H.F. 15<sup>h</sup> to 16<sup>h</sup> Wave in H.F. (- .0012). 17 $\frac{3}{4}$ <sup>h</sup> to 19 $\frac{3}{4}$ <sup>h</sup> Double-crested wave in Dec. (- 5'): in H.F. small. 20 $\frac{3}{4}$ <sup>h</sup> to 21 $\frac{3}{4}$ <sup>h</sup> Sharp wave in Dec. (- 13'). 21 $\frac{1}{4}$ <sup>h</sup> to 22 $\frac{3}{4}$ <sup>h</sup> Double-crested wave in H.F. (+ .0028). 21 $\frac{3}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Two successive waves in Dec. (- 3') and (- 3').
- 9<sup>d</sup> 4 $\frac{1}{4}$ <sup>h</sup> to 6<sup>h</sup> Wave in Dec. (+ 3'), followed by sharp fluctuations in Dec. and H.F. till 7 $\frac{1}{2}$ <sup>h</sup>. 7<sup>h</sup> to 11<sup>h</sup> Slow wave in Dec. (- 6'). 10<sup>h</sup> to 12<sup>h</sup> Wave in H.F. (- .0020), with superposed fluctuations. 15<sup>h</sup> to 16 $\frac{1}{2}$ <sup>h</sup>. Decrease of Dec. (- 5'). 15 $\frac{3}{4}$ <sup>h</sup> to 16 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (- .0012).
- 10<sup>d</sup> 0<sup>h</sup> to 0 $\frac{1}{2}$ <sup>h</sup> Increase of Dec. (+ 7'). 7<sup>h</sup> to 7 $\frac{3}{4}$ <sup>h</sup> Decrease of H.F. (- .0018).
- 12<sup>d</sup> 22<sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Irregular wave in Dec. (- 6'): double-crested wave in H.F. (- .0016). 12<sup>d</sup> 23 $\frac{1}{2}$ <sup>h</sup> to 13<sup>d</sup> 3<sup>h</sup> Triple crested wave in Dec. (- 7'). 12<sup>d</sup> 23 $\frac{1}{2}$ <sup>h</sup> to 13<sup>d</sup> 1 $\frac{1}{2}$ <sup>h</sup> Double wave in H.F. (+ .0012 to - .0008): decrease in V.F. (- .0006).
- 13<sup>d</sup> 14 $\frac{3}{4}$ <sup>h</sup> to 15 $\frac{3}{4}$ <sup>h</sup> Wave in H.F. (+ .0012). 21 $\frac{1}{2}$ <sup>h</sup> to 22 $\frac{3}{4}$ <sup>h</sup> Double-crested wave in H.F. (+ .0010). 22 $\frac{1}{2}$ <sup>h</sup> to 24<sup>h</sup> Double-crested wave in Dec. (- 4'): in H.F. small.
- 14<sup>d</sup> 0 $\frac{3}{4}$ <sup>h</sup> to 2 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+ 4'). 19 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Irregular wave in Dec. (- 7'). 20<sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Irregular wave in H.F. (- .0017). 23<sup>h</sup> to 24<sup>h</sup> Wave in H.F. (+ .0018): decrease in Dec. (- 3') and in V.F. (- .0004).
- 17<sup>d</sup> 18 $\frac{1}{4}$ <sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 5'): in H.F. (- .0008). 22<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (- 6'): in H.F. small.
- 18<sup>d</sup> 11 $\frac{3}{4}$ <sup>h</sup> to 13 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (- .0017), with superposed fluctuations and followed by smaller waves. 21<sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Double wave in Dec. (- 5' to + 3').
- 24<sup>d</sup> 17<sup>h</sup> to 18 $\frac{3}{4}$ <sup>h</sup> Slow wave in Dec. (- 3'): in H.F. small. 18 $\frac{1}{2}$ <sup>h</sup> to 20<sup>h</sup> Double-crested wave in H.F. (+ .0010). 21<sup>h</sup> to 23<sup>h</sup> Double wave in Dec. (+ 4' to - 8'): wave in V.F. (- .0004). 21 $\frac{3}{4}$ <sup>h</sup> to 22 $\frac{1}{4}$ <sup>h</sup> Sharp wave in H.F. (- .0011). 22 $\frac{1}{2}$ <sup>h</sup> to 24<sup>h</sup> Wave in H.F. (- .0014).
- 25<sup>d</sup> 2 $\frac{1}{2}$ <sup>h</sup> to 4 $\frac{1}{2}$ <sup>h</sup> Double wave in Dec. (+ 5' to - 4'). Sharp double wave in H.F. (- .0007 to + .0010), followed by a wave (+ .0010). 14 $\frac{1}{2}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (+ .0010), followed till 21<sup>h</sup> by smaller ones. 17 $\frac{1}{2}$ <sup>h</sup> to 18 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 3').
- 26<sup>d</sup> 1 $\frac{1}{2}$ <sup>h</sup> to 4 $\frac{1}{2}$ <sup>h</sup> Triple wave in Dec. (+ 2'), (- 5'), and (+ 5'). 2 $\frac{1}{2}$ <sup>h</sup> to 4<sup>h</sup> Wave in H.F. (- .0015). 3 $\frac{3}{4}$ <sup>h</sup> to 4 $\frac{1}{4}$ <sup>h</sup> Decrease of V.F. (- .0003). 20 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (- .0014). 21 $\frac{1}{4}$ <sup>h</sup> to 22 $\frac{3}{4}$ <sup>h</sup> Double wave in Dec. (+ 2' to - 4'). 22<sup>h</sup> to 23<sup>h</sup> Wave in H.F. (- .0010). 26<sup>d</sup> 23 $\frac{1}{4}$ <sup>h</sup> to 27<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 3').
- 27<sup>d</sup> 12<sup>h</sup> to 13 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (+ 3'): in H.F. small.
- 28<sup>d</sup> 1 $\frac{1}{4}$ <sup>h</sup> to 2 $\frac{1}{4}$ <sup>h</sup> Sharp wave in Dec. (+ 5'): in H.F. (+ .0020). 1 $\frac{3}{4}$ <sup>h</sup> to 2<sup>h</sup> Sharp decrease of V.F. (- .0003).
- 29<sup>d</sup> 1 $\frac{1}{2}$ <sup>h</sup> to 2 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+ 4'). 1 $\frac{3}{4}$ <sup>h</sup> to 3<sup>h</sup> Wave in H.F. (+ .0013).

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- 2<sup>d</sup> 14 $\frac{1}{2}$ <sup>h</sup> to 16 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (+ '0012). 16 $\frac{3}{4}$ <sup>h</sup> to 17<sup>h</sup> Sharp wave in H.F. (+ '0012): in Dec. small. 22 $\frac{1}{2}$ <sup>h</sup> to 23 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (- 5'): in H.F. (+ '0016): in V.F. small.
- 3<sup>d</sup> 2 $\frac{1}{2}$ <sup>h</sup> to 3 $\frac{3}{4}$ <sup>h</sup> Double wave in Dec. (+ 3' to - 3'). Double crested wave in H.F. (+ '0013). Small wave in V.F. 14<sup>h</sup> to 24<sup>h</sup> Fluctuations in H.F.
- 4<sup>d</sup> 8<sup>h</sup> to 9<sup>h</sup> Wave in Dec. (- 3'). 17 $\frac{1}{2}$ <sup>h</sup> to 19<sup>h</sup> Wave in H.F. (- '0010). 19 $\frac{3}{4}$ <sup>h</sup> to 20 $\frac{1}{4}$ <sup>h</sup> Sharp wave in Dec. (- 3'): in H.F. (+ '0010).
- 5<sup>d</sup> 12<sup>h</sup> to 16<sup>h</sup> Loss of V.F. register.
- 8<sup>d</sup> 16 $\frac{1}{4}$ <sup>h</sup> to 16 $\frac{1}{2}$ <sup>h</sup> Sharp wave in H.F. (+ '0012). 16 $\frac{3}{4}$ <sup>h</sup> to 17 $\frac{1}{4}$ <sup>h</sup> Sharp wave in H.F. (+ '0010), followed till 18 $\frac{1}{4}$ <sup>h</sup> by sharp fluctuations.
- 9<sup>d</sup> 6 $\frac{1}{2}$ <sup>h</sup> to 8<sup>h</sup> Wave in Dec. (+ 6'), with superposed fluctuations: Small double wave in H.F. (- '0006 to + '0006). 15<sup>h</sup> to 16 $\frac{1}{2}$ <sup>h</sup> Triple wave in H.F. (- '0008), (+ '0006), and (- '0011). 15 $\frac{3}{4}$ <sup>h</sup> to 16 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 4'). 20 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (- 6').
- 10<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 4'). 4 $\frac{1}{4}$ <sup>h</sup> to 5 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (- '0010). 14 $\frac{1}{2}$ <sup>h</sup> to 15<sup>h</sup> Wave in Dec. (+ 3'). 14 $\frac{1}{2}$ <sup>h</sup> to 15 $\frac{1}{4}$ <sup>h</sup> Double-crested wave in H.F. (+ '0019). 19 $\frac{1}{2}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Irregular wave in H.F. (+ '0010). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 3'). 21 $\frac{1}{2}$ <sup>h</sup> to 22 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (- 5'): in H.F. (- '0012).
- 11<sup>d</sup> 0<sup>h</sup> to 1 $\frac{1}{2}$ <sup>h</sup> Double wave in Dec. (+ 3' to - 2'). 0<sup>h</sup> to 1<sup>h</sup> Flat-crested wave in H.F. (+ '0010). 20<sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Double wave in Dec. (- 3' to + 2'), sharp at commencement.
- 17<sup>d</sup> 21<sup>h</sup> to 22 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (+ '0011): in Dec. small.
- 20<sup>d</sup> 19 $\frac{3}{4}$ <sup>h</sup> to 20 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (- 3').
- 21<sup>d</sup> 14 $\frac{1}{2}$ <sup>h</sup> to 16<sup>h</sup> Double-crested wave in H.F. (- '0017). 21 $\frac{1}{2}$ <sup>h</sup> to 23<sup>h</sup> Double-crested wave in Dec. (- 5').
- 22<sup>d</sup> 4<sup>h</sup> to 6<sup>h</sup> Slow wave in Dec. (+ 3'). 6 $\frac{3}{4}$ <sup>h</sup> to 8<sup>h</sup> Wave in Dec. (- 3'). 17 $\frac{1}{4}$ <sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (+ '0010). 19 $\frac{1}{2}$ <sup>h</sup> to 20 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (- 3'). 22<sup>d</sup> 22 $\frac{3}{4}$ <sup>h</sup> to 23<sup>d</sup> 0 $\frac{3}{4}$ <sup>h</sup> Double wave in Dec. (+ 6' to - 3'): in H.F. and V.F. small.
- 23<sup>d</sup> 15<sup>h</sup> to 16 $\frac{1}{4}$ <sup>h</sup> Flat-crested wave in H.F. (- '0013), steep at end. 17 $\frac{1}{4}$ <sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (- '0012). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 3'). 20 $\frac{3}{4}$ <sup>h</sup> to 21<sup>h</sup> Sharp decrease in H.F. (- '0010). 23<sup>d</sup> 23<sup>h</sup> to 24<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Double wave in H.F. (+ '0008 to - '0006). 23<sup>d</sup> 23 $\frac{1}{2}$ <sup>h</sup> to 24<sup>d</sup> 3 $\frac{3}{4}$ <sup>h</sup> Prolonged double-crested wave in Dec. (- 7'): in V.F. small.
- 24<sup>d</sup> 17 $\frac{3}{4}$ <sup>h</sup> to 18 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (+ '0011). 19 $\frac{1}{4}$ <sup>h</sup> to 20 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (- '0015). 19 $\frac{1}{2}$ <sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 6'), steep at commencement. 24<sup>d</sup> 23 $\frac{1}{2}$ <sup>h</sup> to 25<sup>d</sup> 0 $\frac{3}{4}$ <sup>h</sup> Double-crested wave in Dec. (- 3').
- 25<sup>d</sup> 4 $\frac{1}{4}$ <sup>h</sup> to 5 $\frac{3}{4}$ <sup>h</sup> Wave in H.F. (+ '0011).
- 28<sup>d</sup> 13 $\frac{3}{4}$ <sup>h</sup> Sharp increase of Dec. (+ 3'): of H.F. (+ '0020): of V.F. small. 14 $\frac{1}{4}$ <sup>h</sup> to 15 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (- '0011). 17 $\frac{3}{4}$ <sup>h</sup> to 18 $\frac{3}{4}$ <sup>h</sup> Sharp double wave in H.F. (+ '0010 to - '0010). 19<sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Sharp wave in H.F. (- '0010), followed immediately by sharp decrease (- '0020). 19 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (- 8'). 22 $\frac{3}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 4'). 22 $\frac{3}{4}$ <sup>h</sup> to 24<sup>h</sup> Wave in H.F. (+ '0025), steep at commencement.
- 29<sup>d</sup> 1<sup>h</sup> to 2 $\frac{1}{2}$ <sup>h</sup> Sharp double-crested wave in Dec. (+ 15'). 1<sup>h</sup> to 3<sup>h</sup> Sharp double wave in V.F. (+ '0003 to - '0004). 1 $\frac{3}{4}$ <sup>h</sup> to 2<sup>h</sup> Very sharp wave in H.F. (+ '0012), followed by sharp fluctuations till 4 $\frac{1}{2}$ <sup>h</sup>. 19<sup>h</sup> to 19 $\frac{1}{4}$ <sup>h</sup> Sharp decrease in H.F. (- '0012). 22 $\frac{3}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Sharp double wave in Dec. (+ 2' to - 3'). 23<sup>h</sup> to 24<sup>h</sup> Wave in H.F. (+ '0010).
- 30<sup>d</sup> 15<sup>h</sup> to 16 $\frac{1}{4}$ <sup>h</sup> Two successive waves in H.F. (+ '0008) and (+ '0010). 20 $\frac{1}{2}$ <sup>h</sup> to 22 $\frac{3}{4}$ <sup>h</sup> Two successive waves in Dec. (- 4') and (- 3'). 12<sup>h</sup> to 20<sup>h</sup> Loss of V.F. register.

May

- 6<sup>d</sup> 18<sup>h</sup> Sudden increase of H.F. (+ '0012). 23 $\frac{1}{2}$ <sup>h</sup> Sudden sharp wave in Dec. (- 3'): in H.F. (- '0010).
- 8<sup>d</sup> 14 $\frac{3}{4}$ <sup>h</sup> to 17 $\frac{1}{4}$ <sup>h</sup> Quadruple wave in H.F. (+ '0010), (- '0010), (+ '0007), and (- '0007). 20 $\frac{1}{4}$ <sup>h</sup> to 21<sup>h</sup> Wave in H.F. (+ '0014). 21<sup>h</sup> to 22<sup>h</sup> Very sharp triple wave in H.F. (+ '0016), (- '0010), and (+ '0012). 21<sup>h</sup> to 22 $\frac{3}{4}$ <sup>h</sup> Irregular sharp wave in Dec. (- 13'). 22<sup>h</sup> to 23<sup>h</sup> Irregular wave in H.F. (- '0019), followed till 23 $\frac{1}{2}$ <sup>h</sup> by another wave (- '0010). 22 $\frac{1}{2}$ <sup>h</sup> to 23<sup>h</sup> Wave in V.F. (+ '0003). 8<sup>d</sup> 22 $\frac{3}{4}$ <sup>h</sup> to 9<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 9').
- 9<sup>d</sup> 3 $\frac{1}{2}$ <sup>h</sup> to 4 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (+ 4').
- 11<sup>d</sup> 16<sup>h</sup> to 17<sup>h</sup> Wave in H.F. (- '0011).
- 13<sup>d</sup> 20 $\frac{3}{4}$ <sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (+ '0017), very steep at commencement: in Dec. small.
- 14<sup>d</sup> 12<sup>h</sup> to 13 $\frac{1}{4}$ <sup>h</sup> Double wave in H.F. (- '0010 to + '0008). 15 $\frac{1}{2}$ <sup>h</sup> to 15 $\frac{3}{4}$ <sup>h</sup> Very sharp wave in H.F. (+ '0014), followed by sharp fluctuations till 19<sup>h</sup>.

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- 15<sup>d</sup> 6<sup>h</sup> to 7<sup>h</sup> Irregular wave in Dec. (− 5'), followed immediately by an increase (+ 7'). 6<sup>h</sup> to 7<sup>h</sup> Wave in H.F. (− '0011). 8<sup>h</sup> to 9<sup>h</sup> Sharp decrease of H.F. (− '0032). 9<sup>h</sup> to 9<sup>h</sup> Wave in Dec. (− 3'). 9<sup>h</sup> to 10<sup>h</sup> Wave in H.F. (− '0020), with very sharp superposed fluctuations. 9<sup>h</sup> to 10<sup>h</sup> Sharp increase of Dec. (+ 4'). 10<sup>h</sup> to 11<sup>h</sup> Sharp double-crested wave in Dec. (+ 4'): in H.F. (+ '0010). 12<sup>h</sup> to 13<sup>h</sup> Double wave in H.F. (− '0008 to + '0012). 12<sup>h</sup> to 13<sup>h</sup> Irregular wave in Dec. (+ 4'). 14<sup>h</sup> to 14<sup>h</sup> Increase of Dec. (+ 3'). 14<sup>h</sup> to 14<sup>h</sup> Sharp wave in H.F. (+ '0015). 15<sup>h</sup> to 15<sup>h</sup> Sharp wave in H.F. (+ '0018). 15<sup>h</sup> to 16<sup>h</sup> Double-crested wave in Dec. (+ 3'). 15<sup>h</sup> to 16<sup>h</sup> Sharp double wave in H.F. (+ '0013 to − '0013), followed by an increase (+ '0007). 17<sup>h</sup> to 17<sup>h</sup> Double-crested wave in H.F. (+ '0015). 18<sup>h</sup> to 19<sup>h</sup> Double-crested wave in H.F. (− '0012): in Dec. small.
- 18<sup>d</sup> 20<sup>h</sup> to 21<sup>h</sup> Wave in H.F. (+ '0012).
- 19<sup>d</sup> 16<sup>h</sup> to 17<sup>h</sup> Wave in H.F. (− '0010). 17<sup>h</sup> to 17<sup>h</sup> Decrease of Dec. (− 4'). 21<sup>h</sup> to 22<sup>h</sup> Wave in H.F. (+ '0015). 22<sup>h</sup> to 22<sup>h</sup> Decrease of Dec. (− 4').
- 20<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Irregular wave in Dec. (+ 8'), sharp at commencement. 0<sup>h</sup> to 3<sup>h</sup> Irregular double-crested wave in H.F. (+ '0018). 2<sup>h</sup> to 4<sup>h</sup> Wave in V.F. (− '0003). 2<sup>h</sup> to 3<sup>h</sup> Double-crested wave in Dec. (+ 4'). 3<sup>h</sup> to 5<sup>h</sup> Wave in H.F. (+ '0013). 4<sup>h</sup> to 6<sup>h</sup> Wave in Dec. (+ 5'). 11<sup>h</sup> to 14<sup>h</sup>. Two successive waves in H.F. (+ '0012) and (+ '0012). 14<sup>h</sup> to 16<sup>h</sup> Flat-crested wave in H.F. (+ '0015). 18<sup>h</sup> to 19<sup>h</sup> Wave in H.F. (+ '0015). 20<sup>h</sup> to 22<sup>h</sup> Two successive waves in Dec. (− 5') and (− 6'). 20<sup>h</sup> to 22<sup>h</sup> Double wave in H.F. (+ '0030 to − '0010). 21<sup>h</sup> to 22<sup>h</sup> Wave in V.F. (− '0003). 22<sup>h</sup> to 23<sup>h</sup> Wave in H.F. (− '0010): in Dec. small.
- 21<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Irregular wave in H.F. (+ '0010). 2<sup>h</sup> to 5<sup>h</sup> Double wave in Dec. (− 3' to + 5'). 3<sup>h</sup> to 5<sup>h</sup> Irregular wave in H.F. (− '0010). 10<sup>h</sup> to 16<sup>h</sup> Loss of Dec., H.F. and V.F. registers.
- 24<sup>d</sup> 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (− 3'): in H.F. (+ '0012).
- 27<sup>d</sup> 17<sup>h</sup> to 19<sup>h</sup> Wave in H.F. (+ '0018), followed by smaller ones till 20<sup>h</sup>. 19<sup>h</sup> to 22<sup>h</sup> Irregular wave in Dec. (− 10').
- 29<sup>d</sup> 15<sup>h</sup> to 17<sup>h</sup> Wave in H.F. (− '0013).

June

- 1<sup>d</sup> 1<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (− 4'). 20<sup>h</sup> to 20<sup>h</sup> Sharp wave in H.F. (− '0010), followed by very sharp fluctuations. 20<sup>h</sup> to 21<sup>h</sup> Sharp wave in H.F. (+ '0012), immediately followed till 21<sup>h</sup> by sharp double-crested wave (− '0013), then till 21<sup>h</sup> by a sharp double-crested wave (+ '0018), and till 22<sup>h</sup> by a very sharp double wave (+ '0010 to − '0018). 22<sup>h</sup> to 24<sup>h</sup> Double wave in Dec. (+ 3' to − 3'): in H.F. very irregular wave (+ '0032), sharp at commencement.
- 2<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Wave in Dec. (+ 3'), followed immediately till 2<sup>h</sup> by flat-crested wave (− 6'), with superposed fluctuations: fluctuations in H.F. 2<sup>h</sup> to 3<sup>h</sup> Double wave in Dec. (+ 3' to − 3'): in H.F. (+ '0010 to − '0005): wave in V.F. (− '0003). 3<sup>h</sup> to 4<sup>h</sup> Wave in Dec. (+ 5'). 4<sup>h</sup> to 4<sup>h</sup> Increase in H.F. (+ '0019): decrease in V.F. (− '0004). 5<sup>h</sup> to 6<sup>h</sup> Wave in H.F. (− '0014). 13<sup>h</sup> to 14<sup>h</sup> Irregular wave in H.F. (+ '0018). 14<sup>h</sup> to 15<sup>h</sup> Wave in Dec. (− 3'). 15<sup>h</sup> to 15<sup>h</sup> Wave in H.F. (+ '0010). 15<sup>h</sup> to 17<sup>h</sup> Irregular double wave in H.F. (− '0012 to + '0018). 18<sup>h</sup> to 18<sup>h</sup> Sharp wave in H.F. (− '0011). 18<sup>h</sup> Very sharp wave in H.F. (− '0008). 19<sup>h</sup> to 19<sup>h</sup> Sharp wave in H.F. (− '0010). 19<sup>h</sup> to 20<sup>h</sup> Sharp wave in Dec. (+ 4'): very sharp wave in H.F. (+ '0048): in V.F. (+ '0003). 20<sup>h</sup> to 20<sup>h</sup> Two successive sharp waves in H.F. (− '0010) and (− '0012). 21<sup>h</sup> Very sharp wave in H.F. (− '0015). 2<sup>d</sup> 22<sup>h</sup> to 3<sup>d</sup> 0<sup>h</sup> Very irregular double wave in H.F. (− '0015 to + '0015): in Dec. small. 2<sup>d</sup> 23<sup>h</sup> to 3<sup>d</sup> 0<sup>h</sup> Decrease of V.F. (− '0003).
- 3<sup>d</sup> 12<sup>h</sup> to 4<sup>d</sup> 11<sup>h</sup> Loss of Dec. and H.F. registers.
- 4<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Decrease of V.F. (− '0005). 13<sup>h</sup> to 14<sup>h</sup> Very sharp wave in H.F. (+ '0027): in Dec. small. 16<sup>h</sup> to 17<sup>h</sup> Sharp wave in H.F. (+ '0013). 20<sup>h</sup> to 22<sup>h</sup> Triple-crested wave in H.F. (+ '0015): in Dec. small. 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 4'): in H.F. (+ '0014).
- 7<sup>d</sup> 19<sup>h</sup> to 20<sup>h</sup> Decrease of H.F. (− '0014). 23<sup>h</sup> to 23<sup>h</sup> Wave in H.F. (− '0012).
- 8<sup>d</sup> 0<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (− 5'), with superposed fluctuations. 2<sup>h</sup> to 3<sup>h</sup> Small triple-crested Wave in H.F. (− '0008). 3<sup>h</sup> to 4<sup>h</sup> Flat-crested wave in Dec. (+ 5'). 10<sup>h</sup> to 11<sup>h</sup> Small double wave in H.F. (+ '0007 to − '0007).
- 9<sup>d</sup> 4<sup>h</sup> to 5<sup>h</sup> Wave in H.F. (− '0010): in Dec. small. 16<sup>h</sup> to 17<sup>h</sup> Flat-crested wave in H.F. (+ '0010), with superposed fluctuations.
- 11<sup>d</sup> 11<sup>h</sup> to 13<sup>h</sup> Wave in H.F. (− '0012), with superposed fluctuations.
- 12<sup>d</sup> 15<sup>h</sup> to 17<sup>h</sup> Wave in H.F. (+ '0011).
- 13<sup>d</sup> 13<sup>h</sup> to 15<sup>h</sup> Double wave in H.F. (− '0010 to + '0006). 15<sup>h</sup> to 16<sup>h</sup> Wave in H.F. (+ '0015).
- 15<sup>d</sup> 17<sup>h</sup> to 18<sup>h</sup> Sharp wave in H.F. (+ '0015), followed by smaller ones. 21<sup>h</sup> Sharp decrease in H.F. (− '0010).

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- June 16<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Sharp wave in Dec. (− 3′): in H.F. (− .0010). 4<sup>h</sup> to 6<sup>h</sup> Irregular wave in Dec. (− 4′). 5<sup>h</sup> to 6<sup>h</sup> Wave in H.F. (− .0010). 13<sup>h</sup> to 14<sup>h</sup> Sharp wave in H.F. (− .0012). 17<sup>h</sup> to 18<sup>h</sup> Sharp wave in H.F. (+ .0012). 18<sup>h</sup> to 19<sup>h</sup> Wave in H.F. (+ .0012), sharp at end. 19<sup>h</sup> to 20<sup>h</sup> Very sharp wave in H.F. (− .0015). 21<sup>h</sup> to 22<sup>h</sup> Decrease in Dec. (− 3′). 22<sup>h</sup> to 23<sup>h</sup> Wave in H.F. (− .0020), immediately followed till 23<sup>h</sup> by decrease (− .0016).
- 18<sup>d</sup> 20<sup>h</sup> to 21<sup>h</sup> Wave in H.F. (+ .0010): in Dec. small.
- 20<sup>d</sup> 12<sup>h</sup> to 21<sup>d</sup> 11<sup>h</sup> Loss of V.F. register.
- 22<sup>d</sup> 5<sup>h</sup> to 11<sup>h</sup> Loss of Dec. and H.F. registers.
- 22<sup>d</sup> 21<sup>h</sup> to 23<sup>d</sup> 8<sup>h</sup> Loss of V.F. register.
- 25<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Small double wave in Dec. (− 2′ to + 2′). 16<sup>h</sup> to 16<sup>h</sup> Wave in H.F. (− .0010), with superposed fluctuations. 18<sup>h</sup> to 19<sup>h</sup> Double-crested wave in H.F. (+ .0010).
- 26<sup>d</sup> 13<sup>h</sup> to 13<sup>h</sup> Wave in H.F. (+ .0014).
- July 1<sup>d</sup> 13<sup>h</sup> to 14<sup>h</sup> Double-crested wave in H.F. (− .0016): in Dec. small. 14<sup>h</sup> to 16<sup>h</sup> Double-crested wave in H.F. (− .0014). 1<sup>d</sup> 22<sup>h</sup> to 2<sup>d</sup> 11<sup>h</sup> Loss of V.F. register.
- 2<sup>d</sup> 1<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (+ 3′): in H.F. (+ .0012).
- 3<sup>d</sup> 22<sup>h</sup> to 4<sup>d</sup> 11<sup>h</sup> Loss of V.F. register.
- 4<sup>d</sup> 15<sup>h</sup> to 17<sup>h</sup> Wave in H.F. (+ .0012).
- 5<sup>d</sup> 13<sup>h</sup> to 14<sup>h</sup> Wave in H.F. (− .0010). 14<sup>h</sup> to 16<sup>h</sup> Two successive waves in H.F. (+ .0012) and (+ .0008). 17<sup>h</sup> to 19<sup>h</sup> Irregular double wave in H.F. (+ .0009 to − .0009), sharp at commencement. 20<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (− 6′): in H.F. (+ .0011). 5<sup>d</sup> 8<sup>h</sup> to 6<sup>d</sup> 11<sup>h</sup> Loss of V.F. register.
- 6<sup>d</sup> 4<sup>h</sup> to 5<sup>h</sup> Wave in H.F. (− .0011). 5<sup>h</sup> to 6<sup>h</sup> Wave in Dec. (+ 3′). 16<sup>h</sup> to 18<sup>h</sup> Irregular wave in H.F. (+ .0012). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (− 4′): in H.F. small.
- 10<sup>d</sup> 2<sup>h</sup> Sharp increase of H.F. (+ .0015), followed by sharp fluctuations, less marked in Dec.
- 11<sup>d</sup> 12<sup>h</sup> to 12<sup>d</sup> 12<sup>h</sup> See Plate II.
- 12<sup>d</sup> 13<sup>h</sup> to 15<sup>h</sup> Irregular double-crested wave in H.F. (− .0019). 16<sup>h</sup> to 17<sup>h</sup> Wave in H.F. (− .0016): in Dec. small. 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (+ 3′): in H.F. (+ .0013): in V.F. small. 12<sup>d</sup> 23<sup>h</sup> to 13<sup>d</sup> 1<sup>h</sup> Flat-crested wave in Dec. (− 3′).
- 13<sup>d</sup> 10<sup>h</sup> to 11<sup>h</sup> Irregular double-crested wave in H.F. (− .0012).
- 18<sup>d</sup> 17<sup>h</sup> Sudden increase in H.F. (+ .0010): in Dec. small.
- 21<sup>d</sup> 13<sup>h</sup> to 15<sup>h</sup> Double wave in H.F. (+ .0012 to − .0010).
- 23<sup>d</sup> 9<sup>h</sup> to 10<sup>h</sup> Wave in H.F. (− .0011). 14<sup>h</sup> to 16<sup>h</sup> Loss of Dec. and H.F. register. 16<sup>h</sup> to 17<sup>h</sup> Wave in H.F. (− .0012). 17<sup>h</sup> to 19<sup>h</sup> Wave in H.F. (− .0014). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (− 3′): in H.F. small.
- 25<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (+ 3′).
- 26<sup>d</sup> 11<sup>h</sup> to 11<sup>h</sup> Sharp wave in H.F. (− .0010). 15<sup>h</sup> to 17<sup>h</sup> Two successive waves in H.F. (+ .0014) and (+ .0010).
- 27<sup>d</sup> 7<sup>h</sup> to 8<sup>h</sup> Sharp double-crested wave in Dec. (+ 3′). 18<sup>h</sup> to 19<sup>h</sup> Wave in H.F. (+ .0014): in Dec. small. 23<sup>h</sup> to 24<sup>h</sup> Sharp wave in H.F. (+ .0020). Decrease in V.F. (− .0004). 27<sup>d</sup> 23<sup>h</sup> to 28<sup>d</sup> 0<sup>h</sup> Sharp wave in Dec. (+ 4′).
- 28<sup>d</sup> 15<sup>h</sup> to 17<sup>h</sup> Irregular double wave in H.F. (+ .0010 to − .0010), sharp at commencement. 17<sup>h</sup> to 18<sup>h</sup> Wave in H.F. (+ .0012).
- 29<sup>d</sup> 13<sup>h</sup> to 13<sup>h</sup> Sharp wave in H.F. (+ .0021): in Dec. small. 14<sup>h</sup> to 14<sup>h</sup> Wave in H.F. (− .0012). 15<sup>h</sup> to 16<sup>h</sup> Flat-crested wave in H.F. (− .0010). 20<sup>h</sup> Sudden increase of H.F. (+ .0028), followed until 20<sup>h</sup> by decrease (− .0012). 21<sup>h</sup> to 22<sup>h</sup> Irregular wave in H.F. (− .0012). 22<sup>h</sup> to 23<sup>h</sup> Very sharp quintuple wave in H.F. (+ .0016), (− .0018), (+ .0012), (− .0013), and (+ .0012). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 3′). 23<sup>h</sup> to 23<sup>h</sup> Very sharp double wave in Dec. (+ 5′ to − 3′): in V.F. (+ .0003 to − .0002). 29<sup>d</sup> 23<sup>h</sup> to 30<sup>d</sup> 0<sup>h</sup> Sharp double-crested wave in H.F. (− .0014).
- 30<sup>d</sup> 0<sup>h</sup> to 10<sup>h</sup> Very sharp fluctuations in Dec.: H.F. and V.F. (small): superposed on other movements. 0<sup>h</sup> Sharp wave in H.F. (− .0012). 1<sup>h</sup> to 2<sup>h</sup> Irregular triple wave in H.F., sharp at reversals (− .0010), (+ .0022) and (− .0013). 2<sup>h</sup> to 2<sup>h</sup> Sharp triple wave in Dec. (+ 3′), (− 4′) and (+ 2′). 7<sup>h</sup> to 7<sup>h</sup> Very sharp wave in Dec. (− 8′): violent fluctuations in H.F. (± .0020). 8<sup>h</sup> to 10<sup>h</sup> sharp fluctuations in H.F. (± .0010). 10<sup>h</sup> to 10<sup>h</sup> Sharp wave in Dec. (+ 5′): double wave in H.F. (+ .0012 to − .0010). 13<sup>h</sup> to 14<sup>h</sup> Sharp wave in H.F. (+ .0016): in Dec. small. 19<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (− 4′): in H.F. (+ .0020).
- 31<sup>d</sup> 0<sup>h</sup> to 3<sup>h</sup> Wave in H.F. (+ .0017). 1<sup>h</sup> to 3<sup>h</sup> Double-crested wave in Dec. (− 4′).



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- 1<sup>d</sup> 17 $\frac{1}{2}$ <sup>h</sup> to 18 $\frac{3}{4}$ <sup>h</sup> Wave in H.F. (+ '0010). 21 $\frac{1}{4}$ <sup>h</sup> to 22 $\frac{3}{4}$ <sup>h</sup> Double wave in H.F. (+ '0008 to - '0008).
- 2<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> to 2<sup>h</sup> Wave in Dec. (- 3').
- 3<sup>d</sup> 15<sup>h</sup> to 16 $\frac{3}{4}$ <sup>h</sup> Wave in H.F. (- '0015). 20 $\frac{1}{4}$ <sup>h</sup> to 21 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (- 3'), steeper at commencement.
- 7<sup>d</sup> 12<sup>h</sup> to 8<sup>d</sup> 12<sup>h</sup> See Plate II.
- 8<sup>d</sup> 16 $\frac{3}{4}$ <sup>h</sup> to 17<sup>h</sup> Sharp decrease of Dec. (- 6'). 16 $\frac{3}{4}$ <sup>h</sup> to 18<sup>h</sup> Double wave in H.F. (- '0011 to + '0012). 18 $\frac{1}{2}$ <sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (- '0014). 18 $\frac{3}{4}$ <sup>h</sup> to 19 $\frac{1}{4}$ <sup>h</sup> Increase of Dec. (+ 4'). 22 $\frac{1}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Irregular double wave in H.F. (- '0010 to + '0025). 22 $\frac{3}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Sharp wave in Dec. (- 4'); decrease in V.F. (- '0004.)
- 9<sup>d</sup> 22 $\frac{3}{4}$ <sup>h</sup> to 24<sup>h</sup> Wave in H.F. (+ '0014): in Dec. small.
- 11<sup>d</sup> 15<sup>h</sup> to 18<sup>h</sup> Sharp fluctuations in H.F.
- 12<sup>d</sup> 11 $\frac{1}{2}$ <sup>h</sup> Sharp wave in H.F. (- '0011). 15 $\frac{3}{4}$ <sup>h</sup> to 16 $\frac{1}{2}$ <sup>h</sup> Sharp wave in H.F. (+ '0018). 16 $\frac{1}{2}$ <sup>h</sup> to 17<sup>h</sup> Wave in Dec. (+ 3'). 17 $\frac{3}{4}$ <sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 14'), steep at commencement. 18 $\frac{1}{4}$ <sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in H.F. (+ '0023), steep at commencement. 21 $\frac{1}{2}$ <sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (- '0012). 22 $\frac{1}{4}$ <sup>h</sup> to 23 $\frac{3}{4}$ <sup>h</sup> Sharp triple wave in Dec. (+ 5'), (- 3'), and (+ 3'). 22 $\frac{1}{2}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Decrease of V.F. (- '0007). 12<sup>d</sup> 22 $\frac{3}{4}$ <sup>h</sup> to 13<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Sharp double wave in H.F. (+ '0019 to - '0018). 12<sup>d</sup> 23 $\frac{3}{4}$ <sup>h</sup> to 13<sup>d</sup> 0 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (- 4').
- 13<sup>d</sup> 1 $\frac{3}{4}$ <sup>h</sup> to 3 $\frac{3}{4}$ <sup>h</sup> Irregular wave in Dec. (- 7'). 4 $\frac{1}{2}$ <sup>h</sup> to 6 $\frac{1}{2}$ <sup>h</sup> Irregular double wave in H.F. (+ '0010 to - '0025). 19 $\frac{3}{4}$ <sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Irregular wave in Dec. (- 5'), steep at commencement: small double wave in H.F.
- 14<sup>d</sup> 16<sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Two successive irregular waves in H.F. (+ '0011) and (+ '0013).
- 16<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Small double-crested wave in Dec. (+ 3'). 18 $\frac{3}{4}$ <sup>h</sup> to 20<sup>h</sup> Two successive waves in Dec. (- 2') and (- 4'). 18 $\frac{3}{4}$ <sup>h</sup> to 19 $\frac{1}{4}$ <sup>h</sup> Sharp wave in H.F. (+ '0024). 19 $\frac{3}{4}$ <sup>h</sup> to 20 $\frac{1}{4}$ <sup>h</sup> Decrease of H.F. (- '0018).
- 19<sup>d</sup> 14<sup>h</sup> to 15 $\frac{1}{4}$ <sup>h</sup> Wave in H.F. (- '0010). 19 $\frac{1}{2}$ <sup>h</sup> to 20 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (- 3').
- 24<sup>d</sup> 17<sup>h</sup> to 20<sup>h</sup> Fluctuations in H.F.
- 25<sup>d</sup> 14 $\frac{1}{2}$ <sup>h</sup> to 15 $\frac{1}{4}$ <sup>h</sup> Flat-crested wave in H.F. (+ '0010).
- 26<sup>d</sup> 15<sup>h</sup> to 18<sup>h</sup> Two successive waves in H.F. (- '0013) and (- '0012).
- 27<sup>d</sup> 18 $\frac{3}{4}$ <sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Sharp wave in H.F. (+ '0020). 19<sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Double wave in Dec. (+ 5' to - 4'). 20 $\frac{1}{4}$ <sup>h</sup> to 20 $\frac{3}{4}$ <sup>h</sup> Sharp wave in H.F. (+ '0011). 23<sup>h</sup> to 24<sup>h</sup> Wave in H.F. (+ '0016).
- 28<sup>d</sup> 2<sup>h</sup> to 4<sup>h</sup> Prolonged wave in Dec. (+ 3'): in H.F. (+ '0011).
- 29<sup>d</sup> 22 $\frac{1}{2}$ <sup>h</sup> to 24<sup>h</sup> Triple wave in H.F. (- '0006), (+ '0010), and (- '0007).
- 31<sup>d</sup> 5<sup>h</sup> to 6 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (- '0016). 5 $\frac{1}{4}$ <sup>h</sup> to 7 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+ 6'). 23 $\frac{1}{4}$ <sup>h</sup> to 23 $\frac{3}{4}$ <sup>h</sup> Wave in H.F. (+ '0010): in Dec. small.
- September
- 1<sup>d</sup> 16 $\frac{3}{4}$ <sup>h</sup> to 17 $\frac{3}{4}$ <sup>h</sup> Wave in H.F. (- '0010). 19 $\frac{3}{4}$ <sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Two successive waves in Dec. (- 4') and (- 3'): irregular double wave in H.F. (+ '0018 to - '0010), steep at commencement.
- 2<sup>d</sup> 0<sup>h</sup> to 1 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (+ 4'). 0 $\frac{1}{4}$ <sup>h</sup> to 1 $\frac{3}{4}$ <sup>h</sup> Wave in H.F. (+ '0016), steep at commencement. 0 $\frac{1}{2}$ <sup>h</sup> to 1<sup>h</sup> Decrease in V.F. (- '0003). 15 $\frac{1}{2}$ <sup>h</sup> to 16 $\frac{3}{4}$ <sup>h</sup> Irregular wave in H.F. (- '0010). 20 $\frac{3}{4}$ <sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 3'): in H.F. (- '0010).
- 3<sup>d</sup> 16<sup>h</sup> to 17 $\frac{3}{4}$ <sup>h</sup> Irregular double wave in H.F. (- '0010 to + '0014). 19 $\frac{1}{2}$ <sup>h</sup> to 22<sup>h</sup> Irregular triple wave in H.F. (+ '0013), (- '0011), and (+ '0011). 20 $\frac{1}{2}$ <sup>h</sup> to 21<sup>h</sup> Sharp decrease of Dec. (- 12'). 19 $\frac{3}{4}$ <sup>h</sup> to 22<sup>h</sup> Wave in V.F. (+ '0003). 21 $\frac{1}{4}$ <sup>h</sup> to 22 $\frac{3}{4}$ <sup>h</sup> Two successive sharp waves in Dec. (+ 5') and (+ 5'). 22<sup>h</sup> to 23 $\frac{1}{4}$ <sup>h</sup> Very sharp triple wave in H.F. (- '0019), (+ '0030), and (- '0022), immediately followed till 24<sup>h</sup> by a wave (- '0020). 22 $\frac{1}{2}$ <sup>h</sup> to 24<sup>h</sup> Sharp wave in V.F. (- '0020). 22 $\frac{3}{4}$ <sup>h</sup> to 23 $\frac{1}{4}$ <sup>h</sup> Very sharp double wave in Dec. (+ 5' to - 5').
- 4<sup>d</sup> 0 $\frac{1}{4}$ <sup>h</sup> to 1 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 5'). 5<sup>h</sup> to 9<sup>h</sup> Sharp fluctuations in Dec. and H.F. 9 $\frac{3}{4}$ <sup>h</sup> to 10 $\frac{3}{4}$ <sup>h</sup> Wave in H.F. (- '0010). 11 $\frac{1}{2}$ <sup>h</sup> to 12 $\frac{1}{2}$ <sup>h</sup> Wave in H.F. (+ '0013). 15 $\frac{1}{4}$ <sup>h</sup> to 16<sup>h</sup> Wave in H.F. (- '0014). 15 $\frac{1}{2}$ <sup>h</sup> to 16 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (- 3'). 17<sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Sharp double wave in H.F. (- '0010 to + '0022). 17 $\frac{1}{4}$ <sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Sharp wave in Dec. (- 10'). 17 $\frac{1}{2}$ <sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Wave in V.F. (+ '0003). 19 $\frac{1}{2}$ <sup>h</sup> to 21<sup>h</sup> Irregular double crested wave in Dec. (- 4'). 19 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Irregular wave in H.F. (+ '0027). 21<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 4'). 21 $\frac{1}{2}$ <sup>h</sup> to 22 $\frac{3}{4}$ <sup>h</sup> Wave in H.F. (- '0010).
- 5<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in H.F. (+ '0010): in Dec. small. 3 $\frac{1}{2}$ <sup>h</sup> to 5<sup>h</sup> Wave in H.F. (+ '0014). 5 $\frac{1}{2}$ <sup>h</sup> to 7<sup>h</sup> Wave in H.F. (+ '0010). 9 $\frac{3}{4}$ <sup>h</sup> to 11<sup>h</sup> Wave in H.F. (- '0012).
- 6<sup>d</sup> 22 $\frac{1}{2}$ <sup>h</sup> to 24<sup>h</sup> Wave in H.F. (+ '0010): in Dec. small.
- 14<sup>d</sup> 21<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 3').
- 15<sup>d</sup> 5<sup>h</sup> to 6<sup>h</sup> Wave in H.F. (+ '0010). 20<sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 3'). 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (- 4').

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- September 16<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Sharp wave in Dec. (+ 5'). 14<sup>h</sup> to 15<sup>h</sup> Wave in H.F. (+ '0010): decrease of Dec. (- 3').  
20<sup>h</sup> to 21<sup>h</sup> Wave in H.F. (+ '0012).
- 17<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in H.F. (+ '0013). 0<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (- 4').
- 18<sup>d</sup> 2<sup>h</sup> to 4<sup>h</sup> Triple wave in Dec. (+ 3'), (- 2') and (+ 2'). 2<sup>h</sup> to 3<sup>h</sup> Wave in H.F. (+ '0010).
- 20<sup>d</sup> 17<sup>h</sup> Sharp increase of H.F. (+ '0009). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (- 3'). 22<sup>h</sup> to 24<sup>h</sup> Double-crested wave in H.F. (- '0011). 20<sup>d</sup> 23<sup>h</sup> to 21<sup>d</sup> 0<sup>h</sup> Wave in Dec. (+ 3').
- 21<sup>d</sup> 19<sup>h</sup> to 20<sup>h</sup> Wave in H.F. (+ '0010).
- 22<sup>d</sup> 12<sup>h</sup> to 23<sup>d</sup> 12<sup>h</sup> See Plate II.
- 23<sup>d</sup> 22<sup>h</sup> to 24<sup>h</sup> Flat-crested wave in H.F. (- '0010).
- 24<sup>d</sup> 19<sup>h</sup> Sharp decrease of Dec. (- 8'). 19<sup>h</sup> to 20<sup>h</sup> Wave in H.F. (+ '0017). 19<sup>h</sup> to 19<sup>h</sup> Increase of Dec. (+ 4').
- 25<sup>d</sup> 7<sup>h</sup> to 8<sup>h</sup> Decrease in H.F. (- '0016). 18<sup>h</sup> to 20<sup>h</sup> Sharp wave in Dec. (- '11'). 19<sup>h</sup> Sudden increase of H.F. (+ '0012).
- 26<sup>d</sup> 1<sup>h</sup> to 3<sup>h</sup> Double-crested wave in Dec. (+ 6'). 18<sup>h</sup> to 20<sup>h</sup> Double-crested wave in Dec. (- 7'). 19<sup>h</sup> to 19<sup>h</sup> Wave in H.F. (+ '0010). 21<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (+ 6'): in V.F. small. 21<sup>h</sup> to 22<sup>h</sup> Flat-crested wave in H.F. (+ '0013).
- 27<sup>d</sup> 17<sup>h</sup> to 19<sup>h</sup> Wave in H.F. (- '0014).
- 28<sup>d</sup> 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 3').
- 29<sup>d</sup> 11<sup>h</sup> to 12<sup>h</sup> Wave in Dec. (+ 3'). 21<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (- 5'): small double-crested wave in H.F. (+ '0008).
- 30<sup>d</sup> 14<sup>h</sup> to 15<sup>h</sup> Wave in Dec. (+ 3'): fluctuations in H.F. 17<sup>h</sup> to 18<sup>h</sup> Double-crested wave in H.F. (- '0013). 18<sup>h</sup> to 19<sup>h</sup> Wave in Dec. (- 4').

- October 1<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Irregular wave in Dec. (+ 4'): in H.F. small. 2<sup>h</sup> to 5<sup>h</sup> Double wave in Dec. (- 4' to + 3').  
3<sup>h</sup> to 4<sup>h</sup> Wave in H.F. (- '0020). 6<sup>h</sup> to 7<sup>h</sup> Wave in H.F. (- '0010). 7<sup>h</sup> to 8<sup>h</sup> Wave in Dec. (+ 4'). 7<sup>h</sup> to 10<sup>h</sup> Double-crested wave in H.F. (- '0021). 12<sup>h</sup> to 13<sup>h</sup> Wave in Dec. (+ 3'): in H.F. (+ '0010). 15<sup>h</sup> to 16<sup>h</sup> Double wave in H.F. (+ '0011 to - '0010). 20<sup>h</sup> to 22<sup>h</sup> Triple wave in Dec. (- 3'), (+ 3') and (- 3'). 21<sup>h</sup> to 22<sup>h</sup> Wave in H.F. (+ '0010). 1<sup>d</sup> 22<sup>h</sup> to 2<sup>d</sup> 0<sup>h</sup> Double-crested wave in Dec. (- 5'). 1<sup>d</sup> 21<sup>h</sup> to 2<sup>d</sup> 9<sup>h</sup> Loss of V.F. register.
- 2<sup>d</sup> 20<sup>h</sup> to 21<sup>h</sup> Two successive waves in H.F. (+ '0010) and (+ '0012). 2<sup>d</sup> 23<sup>h</sup> to 3<sup>d</sup> 0<sup>h</sup> Double wave in H.F. (- '0006 to + '0008). 2<sup>d</sup> 23<sup>h</sup> to 3<sup>d</sup> 1<sup>h</sup> Irregular wave in Dec. (+ 6'): small wave in V.F.
- 3<sup>d</sup> 1<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 3'). 17<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 3'): in H.F. small. 20<sup>h</sup> to 21<sup>h</sup> Very irregular wave in Dec. (- 3'). 20<sup>h</sup> to 22<sup>h</sup> Three successive waves in H.F. (+ '0012), (+ '0009) and (+ '0013).
- 4<sup>d</sup> 19<sup>h</sup> to 5<sup>d</sup> 21<sup>h</sup> Loss of Dec. register.
- 6<sup>d</sup> 0<sup>h</sup> to 12<sup>h</sup> Loss of Dec. register.
- 7<sup>d</sup> 4<sup>h</sup> to 16<sup>h</sup> Loss of Dec. register.
- 11<sup>d</sup> 11<sup>h</sup> to 16<sup>h</sup> Loss of Dec. register.
- 12<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (- 3'): in H.F. small. 11<sup>h</sup> to 13<sup>h</sup> Flat-crested wave in Dec. (+ 4'). 13<sup>h</sup> to 14<sup>h</sup> Irregular wave in H.F. (- '0020). 21<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 4'): in H.F. (+ '0015). 22<sup>h</sup> to 23<sup>h</sup> Wave in H.F. (+ '0013).
- 13<sup>d</sup> 17<sup>h</sup> to 18<sup>h</sup> Wave in H.F. (- '0010).
- 14<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (+ 5').
- 16<sup>d</sup> 21<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 3'), sharp at commencement: sharp wave in H.F. (+ '0013).
- 19<sup>d</sup> 18<sup>h</sup> to 19<sup>h</sup> Double-crested wave in Dec. (- 4'). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 3'). 21<sup>h</sup> to 22<sup>h</sup> Wave in H.F. (+ '0010).
- 20<sup>d</sup> 22<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 3').
- 21<sup>d</sup> 1<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (- 4'). 5<sup>h</sup> Very sharp wave in Dec. (- 3'): in H.F. small. 18<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 4').
- 22<sup>d</sup> 1<sup>h</sup> to 3<sup>h</sup> Sharp wave in Dec. (+ 8'), followed till 2<sup>h</sup> by slower one (- 3'): sharp decrease in H.F. (- '0006), immediately followed by wave (+ '0020): sharp increase in V.F. (+ '0002), immediately followed by slow wave (- '0003). 15<sup>h</sup> to 16<sup>h</sup> Very irregular-crested wave in H.F. (- '0016). 15<sup>h</sup> to 15<sup>h</sup> Decrease of Dec. (- 5'). 18<sup>h</sup> to 21<sup>h</sup> Steep flat-crested wave in Dec. (- 14'): triple wave in H.F. (- '0010), (+ '0015), and (- '0008).

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- 23<sup>d</sup> 20<sup>h</sup><sub>4</sub> to 21<sup>h</sup><sub>4</sub> Sharp wave in Dec. ( - 5').
- 25<sup>d</sup> 23<sup>h</sup> to 23<sup>h</sup><sub>4</sub> Wave in H.F. ( + .0010).
- 26<sup>d</sup> 21<sup>h</sup><sub>2</sub> to 22<sup>h</sup> Wave in Dec. ( - 4).
- 27<sup>d</sup> 1<sup>h</sup> to 3<sup>h</sup> Irregular wave in H.F. ( + .0014). 2<sup>h</sup> to 3<sup>h</sup><sub>4</sub> Flat-crested wave in Dec. ( - 3'). 10<sup>h</sup> to 11<sup>h</sup> Wave in Dec. ( - 4'). 12<sup>h</sup> to 13<sup>h</sup> Flat-crested wave in H.F. ( - .0015). 14<sup>h</sup><sub>4</sub> to 16<sup>h</sup> Wave in Dec. ( - 4'). 14<sup>h</sup><sub>4</sub> to 15<sup>h</sup><sub>2</sub> Wave in H.F. ( - .0017). 17<sup>h</sup><sub>2</sub> to 18<sup>h</sup><sub>2</sub> Wave in Dec. ( - 5'): in H.F. ( + .0016). 19<sup>h</sup><sub>4</sub> to 21<sup>h</sup><sub>2</sub> Irregular double wave in H.F. ( + .0014 to - .0013). 27<sup>d</sup> 23<sup>h</sup><sub>2</sub> to 28<sup>d</sup> 1<sup>h</sup> Wave in H.F. ( + .0010).
- 28<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup><sub>4</sub> Wave in Dec. ( - 3').
- 29<sup>d</sup> 23<sup>h</sup><sub>4</sub> to 30<sup>d</sup> 1<sup>h</sup> Wave in H.F. ( + .0013): small double wave in Dec.
- 30<sup>d</sup> 18<sup>h</sup> to 18<sup>h</sup><sub>4</sub> Wave in Dec. ( - 4'), steep at commencement: small double wave in H.F. 21<sup>h</sup> to 21<sup>h</sup><sub>4</sub> Wave in Dec. ( + 3'): in H.F. ( + .0013), both steep at commencement.
- 31<sup>d</sup> 17<sup>h</sup> to 18<sup>h</sup><sub>4</sub> Wave in Dec. ( - 4'). 21<sup>h</sup> to 21<sup>h</sup><sub>4</sub> Wave in Dec. ( - 3').
- November
- 1<sup>d</sup> 0<sup>h</sup><sub>2</sub> to 2<sup>h</sup><sub>4</sub> Slow wave in H.F. ( + .0010). 1<sup>h</sup> to 3<sup>h</sup> Wave in Dec. ( - 4').
- 4<sup>d</sup> 19<sup>h</sup><sub>4</sub> to 20<sup>h</sup><sub>4</sub> Wave in Dec. ( - 3').
- 5<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup><sub>4</sub> Wave in Dec. ( + 3').
- 7<sup>d</sup> 22<sup>h</sup><sub>2</sub> to 8<sup>d</sup> 0<sup>h</sup><sub>2</sub> Wave in Dec. ( - 4').
- 8<sup>d</sup> 0<sup>h</sup><sub>4</sub> to 1<sup>h</sup><sub>4</sub> Wave in H.F. ( + .0020). 0<sup>h</sup><sub>2</sub> to 3<sup>h</sup><sub>2</sub> Two successive waves in Dec. ( - 5') and ( - 4'). 0<sup>h</sup><sub>2</sub> to 1<sup>h</sup> Decrease in V.F. ( - .0003). 23<sup>h</sup><sub>4</sub> to 24<sup>h</sup> Decrease in V.F. ( - .0003). 8<sup>d</sup> 23<sup>h</sup><sub>4</sub> to 9<sup>d</sup> 0<sup>h</sup><sub>2</sub> Wave in H.F. ( + .0022), steep at commencement. 8<sup>d</sup> 23<sup>h</sup><sub>2</sub> to 9<sup>d</sup> 0<sup>h</sup><sub>4</sub> Wave in Dec. ( - 3').
- 10<sup>d</sup> 2<sup>h</sup><sub>2</sub> to 3<sup>h</sup><sub>2</sub> Wave in Dec. ( + 4'). 3<sup>h</sup> to 4<sup>h</sup><sub>4</sub> Wave in H.F. ( + .0012). 16<sup>h</sup><sub>4</sub> to 17<sup>h</sup><sub>4</sub> Wave in H.F. ( + .0010). 17<sup>h</sup> to 18<sup>h</sup><sub>2</sub> Irregular wave in Dec. ( - 5').
- 11<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Triple-crested wave in Dec. ( - 7'). 0<sup>h</sup> to 1<sup>h</sup><sub>2</sub> Sharp wave in H.F. ( + .0022). 21<sup>h</sup><sub>4</sub> to 21<sup>h</sup><sub>4</sub> Sharp wave in Dec. ( - 7'), very steep at commencement: wave in H.F. ( + .0010). 22<sup>h</sup> to 24<sup>h</sup> Irregular wave in Dec. ( - 4').
- 12<sup>d</sup> 23<sup>h</sup> to 13<sup>d</sup> 0<sup>h</sup><sub>2</sub> Irregular double-crested wave in Dec. ( + 5'). 12<sup>d</sup> 23<sup>h</sup> to 13<sup>d</sup> 1<sup>h</sup> Irregular flat-crested wave in H.F. ( + .0012).
- 15<sup>d</sup> 22<sup>h</sup><sub>2</sub> Sudden decrease of Dec. ( - 3'). 22<sup>h</sup><sub>2</sub> to 23<sup>h</sup> Wave in H.F. ( + .0014).
- 16<sup>d</sup> 23<sup>h</sup><sub>2</sub> to 17<sup>d</sup> 1<sup>h</sup> Wave in H.F. ( + .0010).
- 18<sup>d</sup> 0<sup>h</sup><sub>2</sub> to 1<sup>h</sup><sub>2</sub> Sharp wave in H.F. ( + .0018). 20<sup>h</sup> to 21<sup>h</sup><sub>2</sub> Double-crested wave in Dec. ( - 4'), sharp at commencement. 18<sup>d</sup> 23<sup>h</sup> to 19<sup>d</sup> 0<sup>h</sup><sub>4</sub> Wave in Dec. ( - 3').
- 19<sup>d</sup> 1<sup>h</sup><sub>2</sub> to 3<sup>h</sup> Irregular wave in Dec. ( - 3'). 4<sup>h</sup><sub>4</sub> to 5<sup>h</sup><sub>4</sub> Wave in Dec. ( + 5'). 4<sup>h</sup><sub>4</sub> to 5<sup>h</sup><sub>4</sub> Wave in H.F. ( - .0010).
- 20<sup>d</sup> 21<sup>h</sup><sub>4</sub> to 22<sup>h</sup><sub>4</sub> Wave in Dec. ( - 3'): in H.F. small.
- 21<sup>d</sup> 0<sup>h</sup><sub>4</sub> to 2<sup>h</sup><sub>4</sub> Wave in Dec. ( + 5'). 1<sup>h</sup><sub>4</sub> to 2<sup>h</sup><sub>4</sub> Wave in H.F. ( + .0010).
- 21<sup>d</sup> 12<sup>h</sup> to 22<sup>d</sup> 12<sup>h</sup> See Plate III.
- 22<sup>d</sup> 11<sup>h</sup><sub>2</sub> to 14<sup>h</sup> Loss of Dec. H.F. and V.F. registers.
- 24<sup>d</sup> 18<sup>h</sup><sub>2</sub> to 19<sup>h</sup><sub>4</sub> Double-crested wave in Dec. ( - 5'). 19<sup>h</sup><sub>2</sub> to 20<sup>h</sup> Sharp wave in H.F. ( - .0010).
- 25<sup>d</sup> 1<sup>h</sup><sub>4</sub> to 2<sup>h</sup><sub>2</sub> Small double wave in Dec. ( + 2' to - 2'): wave in H.F. ( + .0018), steep at commencement.
- December
- 2<sup>d</sup> 0<sup>h</sup><sub>4</sub> to 2<sup>h</sup> Wave in H.F. ( + .0013). 1<sup>h</sup> to 3<sup>h</sup><sub>2</sub> Irregular double-crested wave in Dec. ( - 4'). 2<sup>d</sup> 23<sup>h</sup><sub>2</sub> to 3<sup>d</sup> 1<sup>h</sup><sub>2</sub> Wave in H.F. ( + .0014). 2<sup>d</sup> 23<sup>h</sup><sub>4</sub> to 3<sup>d</sup> 2<sup>h</sup><sub>2</sub> Slow wave in Dec. ( - 5').
- 3<sup>d</sup> 20<sup>h</sup><sub>2</sub> to 21<sup>h</sup><sub>4</sub> Wave in Dec. ( - 4'), sharp at commencement: in H.F. small.
- 4<sup>d</sup> 16<sup>h</sup><sub>2</sub> to 17<sup>h</sup><sub>2</sub> Wave in H.F. ( - .0010): in Dec. small.
- 7<sup>d</sup> 22<sup>h</sup><sub>4</sub> to 23<sup>h</sup><sub>2</sub> Sharp wave in Dec. ( - 4'): in H.F. small.
- 8<sup>d</sup> 3<sup>h</sup> to 15<sup>h</sup> Small sharp fluctuations in Dec. and H.F. 15<sup>h</sup><sub>2</sub> to 16<sup>h</sup><sub>2</sub> Wave in Dec. ( - 3'). 18<sup>h</sup><sub>2</sub> to 19<sup>h</sup> Wave in Dec. ( - 3'). 19<sup>h</sup> to 19<sup>h</sup><sub>2</sub> Decrease of Dec. ( - 3'). 20<sup>h</sup> to 20<sup>h</sup><sub>4</sub> Decrease of Dec. ( - 3'). 20<sup>h</sup><sub>4</sub> to 21<sup>h</sup> Sharp double wave in Dec. ( + 4' to - 3'). 21<sup>h</sup><sub>2</sub> to 23<sup>h</sup><sub>4</sub> Sharp quadruple wave in Dec. ( - 4'), ( + 3'), ( - 5') and ( + 3'), followed till 23<sup>h</sup><sub>4</sub> by an increase ( + 3'). 16<sup>h</sup> to 21<sup>h</sup><sub>2</sub> Loss of H.F. register. 21<sup>h</sup><sub>4</sub> to 22<sup>h</sup><sub>2</sub> Sharp wave in H.F. ( + .0019), followed immediately till 23<sup>h</sup><sub>4</sub> by a double-crested wave ( + .0015). 8<sup>d</sup> 16<sup>h</sup> to 9<sup>d</sup> 12<sup>h</sup> Loss of V.F. register.

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- December 9<sup>d</sup> 0<sup>h</sup> to 0<sup>3/4</sup><sup>h</sup> Sharp double wave in Dec. (+ 9' to - 5'): increase of H.F. (+ '0030). 1<sup>h</sup> to 1<sup>1/2</sup><sup>h</sup> Wave in Dec. (+ 4'): in H.F. (- '0012). 2<sup>h</sup> to 4<sup>h</sup> General increase of Dec. (+ 9'): of H.F. (+ '0008). 4<sup>h</sup> to 5<sup>1/4</sup><sup>h</sup> Double wave in Dec. (- 4' to + 3'). 5<sup>h</sup> to 5<sup>1/4</sup><sup>h</sup> Decrease of H.F. (- '0016). 5<sup>1/4</sup><sup>h</sup> to 6<sup>1/4</sup><sup>h</sup> Wave in H.F. (+ '0010): in Dec. small. 6<sup>h</sup> to 7<sup>1/4</sup><sup>h</sup> Wave in Dec. (+ 6'). 6<sup>3/4</sup><sup>h</sup> to 7<sup>3/4</sup><sup>h</sup> Sharp-crested wave in H.F. (+ '0018). 12<sup>1/2</sup><sup>h</sup> to 13<sup>h</sup> Sharp wave in H.F. (- '0010). 12<sup>3/4</sup><sup>h</sup> to 13<sup>3/4</sup><sup>h</sup> Wave in Dec. (+ 3'). 15<sup>3/4</sup><sup>h</sup> to 17<sup>1/4</sup><sup>h</sup> Wave in H.F. (- '0010). 17<sup>h</sup> to 18<sup>1/4</sup><sup>h</sup> Wave in Dec. (+ 4'). 18<sup>1/4</sup><sup>h</sup> to 19<sup>1/4</sup><sup>h</sup> Wave in H.F. (+ '0013). 18<sup>3/4</sup><sup>h</sup> to 19<sup>3/4</sup><sup>h</sup> Wave in Dec. (+ 3'). 20<sup>h</sup> to 21<sup>1/4</sup><sup>h</sup> Sharp wave in Dec. (- 9'). 20<sup>1/4</sup><sup>h</sup> to 20<sup>3/2</sup><sup>h</sup> Sharp increase of H.F. (+ '0018). 20<sup>3/4</sup><sup>h</sup> to 21<sup>h</sup> Decrease of H.F. (- '0012).
- 10<sup>d</sup> 21<sup>h</sup> to 21<sup>3/4</sup><sup>h</sup> Sharp wave in Dec. (- 4').
- 11<sup>d</sup> 1<sup>h</sup> to 2<sup>1/4</sup><sup>h</sup> Wave in Dec. (- 3').
- 12<sup>d</sup> 16<sup>1/2</sup><sup>h</sup> to 19<sup>h</sup> Slow irregular wave in H.F. (- '0012): in Dec. small.
- 13<sup>d</sup> 22<sup>h</sup> to 22<sup>3/4</sup><sup>h</sup> Wave in Dec. (- 3').
- 15<sup>d</sup> 14<sup>h</sup> to 15<sup>1/4</sup><sup>h</sup> Flat-crested wave in H.F. (- '0010). 20<sup>3/4</sup><sup>h</sup> to 22<sup>h</sup> Sharp triple wave in Dec. (- 4') (+ 4') and (- 5'). 20<sup>3/4</sup><sup>h</sup> to 22<sup>1/2</sup><sup>h</sup> Two successive sharp waves in H.F. (+ '0030) and (+ '0027).
- 16<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Wave in H.F. (+ '0013). 16<sup>3/4</sup><sup>h</sup> Sudden increase of Dec. (+ 7'), instantaneously followed by sudden decrease (- 10'): sudden decrease of H.F. (- '0010), instantaneously followed by sudden increase (+ '0030). 16<sup>3/4</sup><sup>h</sup> to 18<sup>1/4</sup><sup>h</sup> Irregular wave in Dec. (6'). 16<sup>3/4</sup><sup>h</sup> to 17<sup>1/4</sup><sup>h</sup> Decrease of H.F. (- '0014). 17<sup>3/4</sup><sup>h</sup> to 18<sup>1/4</sup><sup>h</sup> Sharp double wave in H.F. (+ '0015 to - '0015), with sharp superposed fluctuations. 18<sup>1/4</sup><sup>h</sup> to 19<sup>1/4</sup><sup>h</sup> Double-crested wave in Dec. (+ 6'), with superposed fluctuations. 19<sup>h</sup> to 20<sup>h</sup> Sharp double wave in H.F. (- '0018 to + '0020). 19<sup>1/4</sup><sup>h</sup> to 19<sup>3/4</sup><sup>h</sup> Sharp wave in Dec. (- 14'): wave in V.F. (+ '0004). 19<sup>3/4</sup><sup>h</sup> to 20<sup>3/4</sup><sup>h</sup> Sharp double wave in Dec. (+ 6' to - 5'). 20<sup>h</sup> to 21<sup>h</sup> Two successive sharp waves in H.F. (- '0027) and (- '0018). 20<sup>3/4</sup><sup>h</sup> to 22<sup>h</sup> Very irregular wave in Dec. (- 5'), sharp at commencement. 21<sup>h</sup> to 22<sup>1/2</sup><sup>h</sup> Irregular double-crested wave in H.F. (- '0018). 22<sup>h</sup> to 23<sup>h</sup> Irregular increase of Dec. (+ 5'). 23<sup>h</sup> to 24<sup>h</sup> Sharp double wave in H.F. (- '0024 to + '0020). 23<sup>3/4</sup><sup>h</sup> to 24<sup>h</sup> Sharp decrease in V.F. (- '0003). 16<sup>d</sup> 23<sup>h</sup> to 17<sup>d</sup> 2<sup>h</sup> Large flat-crested wave in Dec. (- 11') having superposed upon it from 16<sup>d</sup> 23<sup>3/4</sup><sup>h</sup> to 17<sup>d</sup> 0<sup>1/2</sup><sup>h</sup> a sharp double wave (+ 4' to - 6').
- 17<sup>d</sup> 0<sup>h</sup> to 0<sup>1/2</sup><sup>h</sup> Irregular sharp wave in H.F. (+ '0025). 0<sup>1/2</sup><sup>h</sup> to 2<sup>h</sup> Irregular wave in H.F. (- '0023). 2<sup>h</sup> to 24<sup>h</sup> Small sharp fluctuations in Dec. and H.F. amounting at 3<sup>1/2</sup><sup>h</sup> to ( $\pm 3'$ ) in Dec. and ( $\pm$  '0008) in H.F.
- 21<sup>d</sup> 20<sup>h</sup> to 20<sup>3/4</sup><sup>h</sup> Decrease of Dec. (- 5'): small wave in H.F. 21<sup>1/2</sup><sup>h</sup> to 23<sup>1/2</sup><sup>h</sup> Irregular double-crested wave in Dec. (- 9'). 21<sup>1/2</sup><sup>h</sup> to 21<sup>3/4</sup><sup>h</sup> Very sharp double-crested wave in H.F. (+ '0020). 22<sup>h</sup> to 22<sup>1/4</sup><sup>h</sup> Wave in H.F. (+ '0012). 22<sup>1/2</sup><sup>h</sup> to 24<sup>h</sup> Irregular triple wave in H.F. (+ '0012), (- '0010) and (+ '0011).
- 22<sup>d</sup> 0<sup>h</sup> to 4<sup>h</sup> Irregular septuple wave in Dec. (- 4'), (+ 3'), (- 3'), (+ 3'), (- 4'), (+ 4') and (- 8'). 0<sup>1/4</sup><sup>h</sup> to 1<sup>1/4</sup><sup>h</sup> Double wave in H.F. (- '0012 to + '0014). 1<sup>h</sup> to 1<sup>1/4</sup><sup>h</sup> Decrease in V.F. (- '0005). 1<sup>1/2</sup><sup>h</sup> to 4<sup>h</sup> Irregular triple wave in H.F. (- '0010), (+ '0028) and (- '0018). 1<sup>3/4</sup><sup>h</sup> to 4<sup>h</sup> Wave in V.F. (- '0006).
- 22<sup>d</sup> 7<sup>h</sup> to 23<sup>d</sup> 7<sup>h</sup> See Plate III.
- 23<sup>d</sup> 12<sup>h</sup> to 13<sup>1/2</sup><sup>h</sup> Wave in Dec. (+ 4').
- 24<sup>d</sup> 0<sup>1/2</sup><sup>h</sup> to 2<sup>3/4</sup><sup>h</sup> Irregular wave in Dec. (+ 4'). 1<sup>h</sup> to 3<sup>h</sup> Slow wave in H.F. (+ '0010). 13<sup>1/2</sup><sup>h</sup> to 14<sup>1/2</sup><sup>h</sup> Wave in H.F. (- '0013). 13<sup>3/4</sup><sup>h</sup> to 15<sup>1/4</sup><sup>h</sup> Wave in Dec. (- 3'). 16<sup>h</sup> to 17<sup>1/4</sup><sup>h</sup> Wave in Dec. (- 6').
- 26<sup>d</sup> 17<sup>1/4</sup><sup>h</sup> to 18<sup>1/4</sup><sup>h</sup> Double-crested wave in Dec. (- 6'). 18<sup>1/4</sup><sup>h</sup> to 19<sup>3/4</sup><sup>h</sup> Loss of Dec. register. 20<sup>1/4</sup><sup>h</sup> to 21<sup>h</sup> Decrease of Dec. (- 2'), followed by wave (- 3'): wave in H.F. (+ '0016), steep at commencement. 21<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (- 7'). 21<sup>h</sup> to 22<sup>1/2</sup><sup>h</sup> Wave in H.F. (- '0013).
- 27<sup>d</sup> 20<sup>h</sup> to 21<sup>1/2</sup><sup>h</sup> Wave in Dec. (- 5').

## EXPLANATION OF THE PLATES.

The magnetic motions figured on the Plates are :—

- (1.) Those for days of great disturbance—None in 1906.
- (2.) Those for days of lesser disturbance—January 31–February 1, February 24–25, 25–26, July 11–12, August 7–8, September 22–23, November 21–22, December 22<sup>d</sup> 7<sup>h</sup> to 23<sup>d</sup> 7<sup>h</sup>.
- (3.) Those for four quiet days—February 13, May 5, August 6, November 2—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 0.0001 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  $0^{\text{in}}80 = 20.2^{\text{mm}}$  in the declination curve, by  $0^{\text{in}}74 = 18.7^{\text{mm}}$  in the horizontal force curve, and by  $0^{\text{in}}59 = 15.0^{\text{mm}}$  in the vertical force curve.

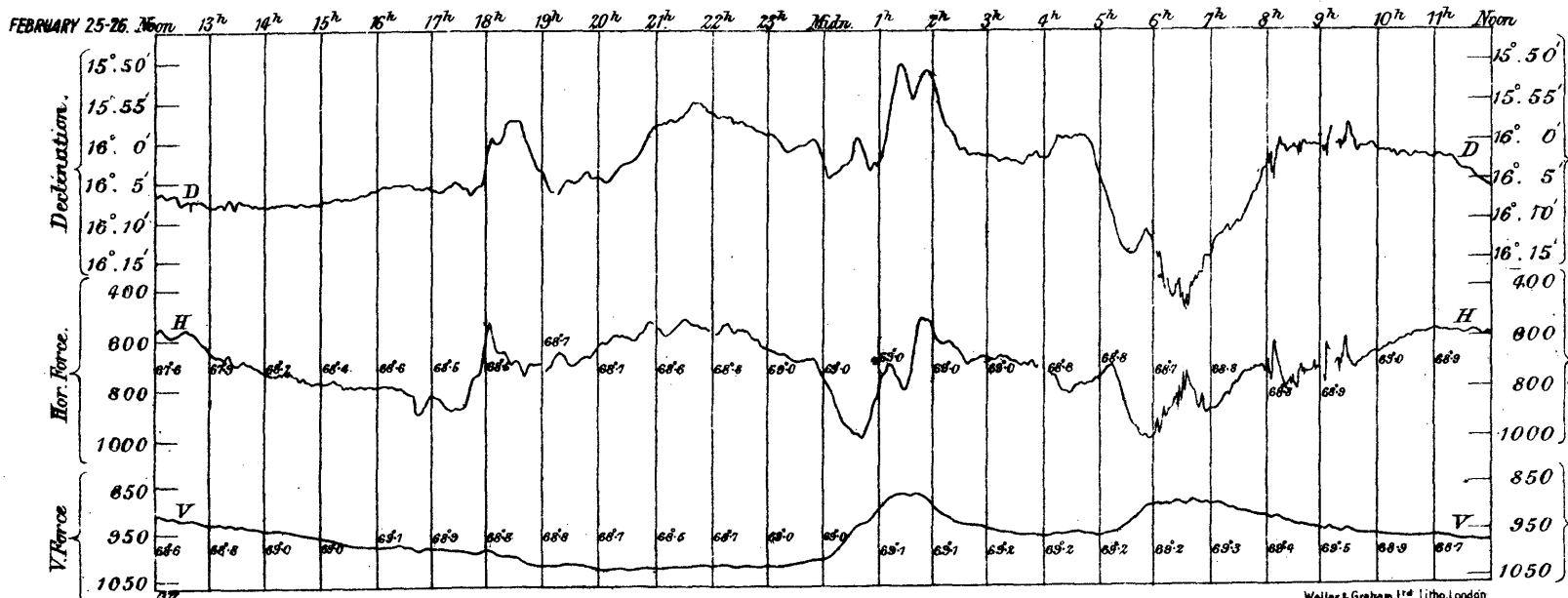
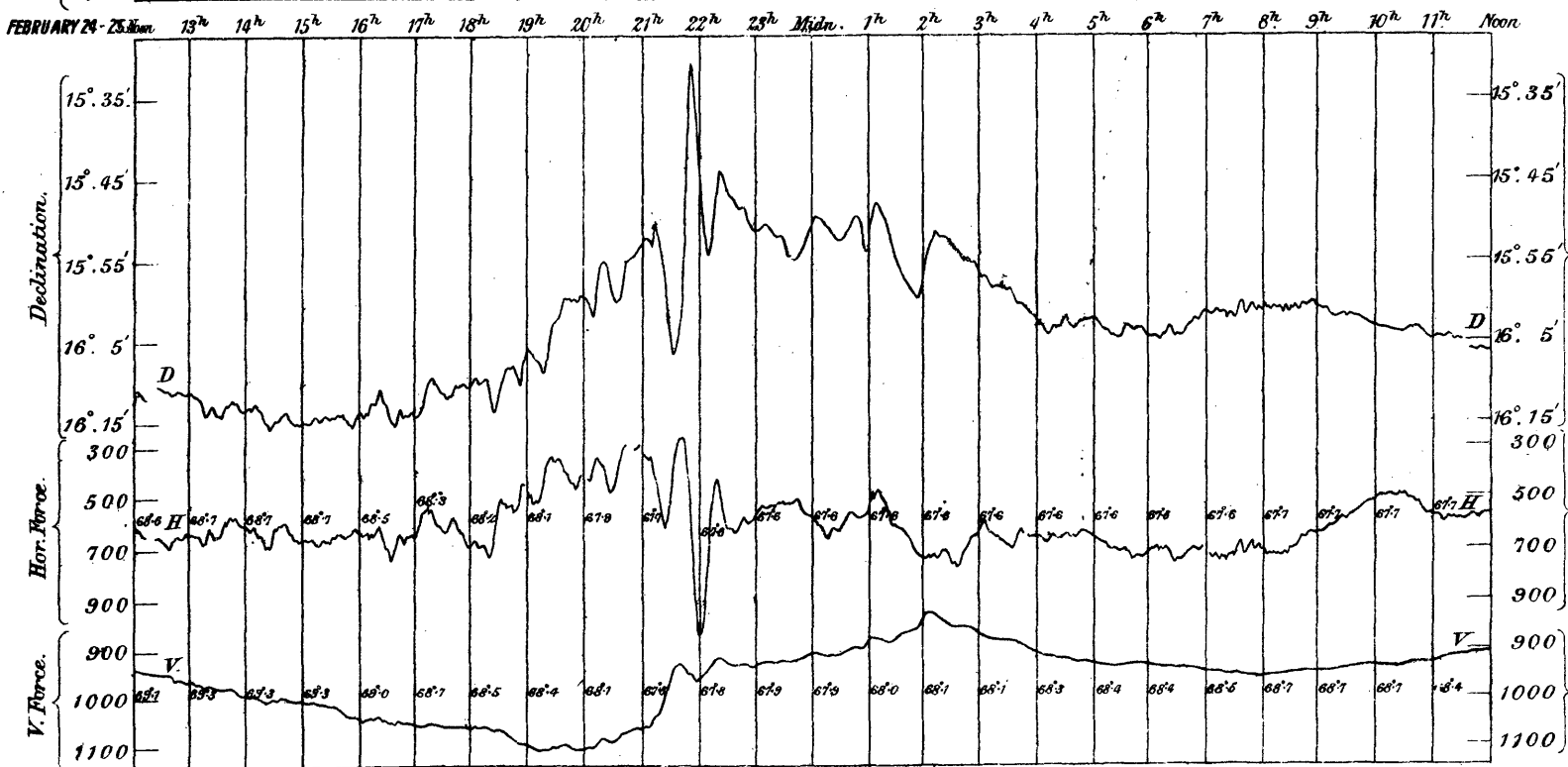
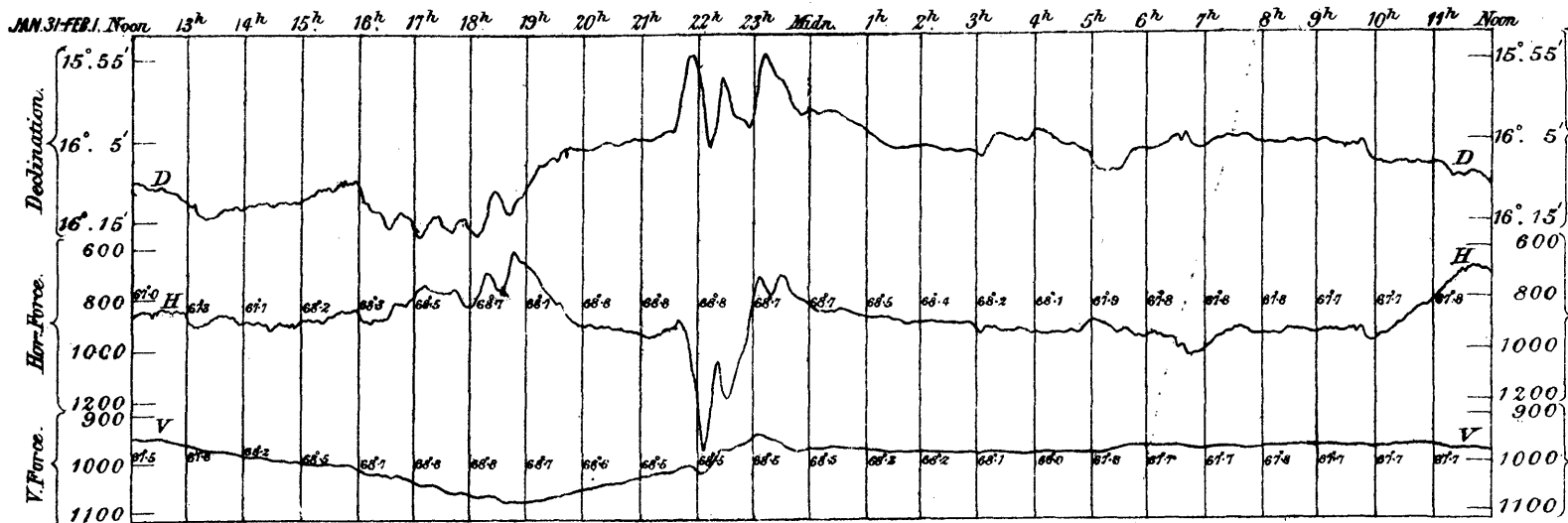
Downward motion indicates increase of declination and of horizontal and vertical force.

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.

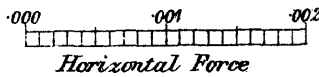
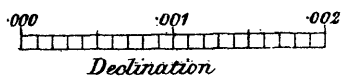
The temperatures (Fahrenheit) of the horizontal and vertical force magnets at each hour are given in small figures on the Diagrams.

Magnetic Disturbances recorded at the Royal Observatory, Greenwich. 1906.



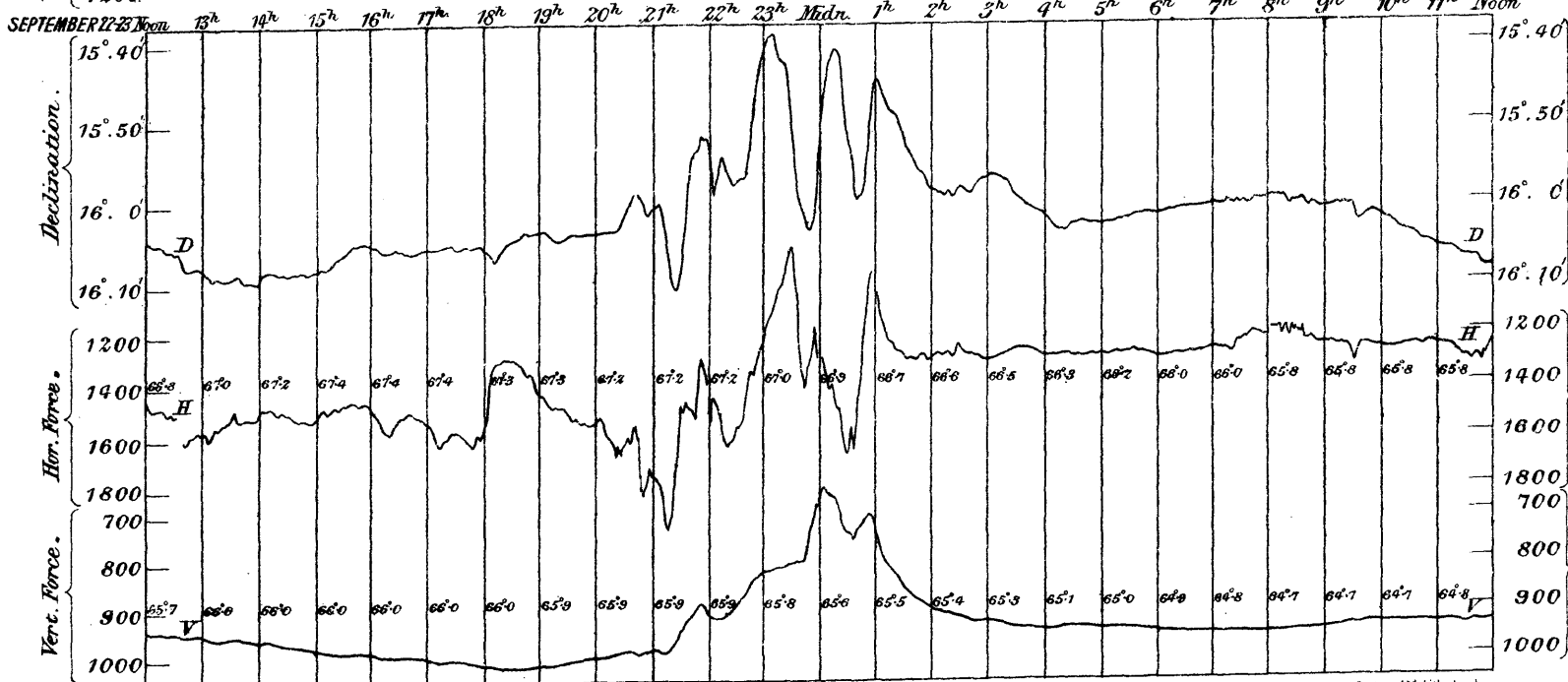
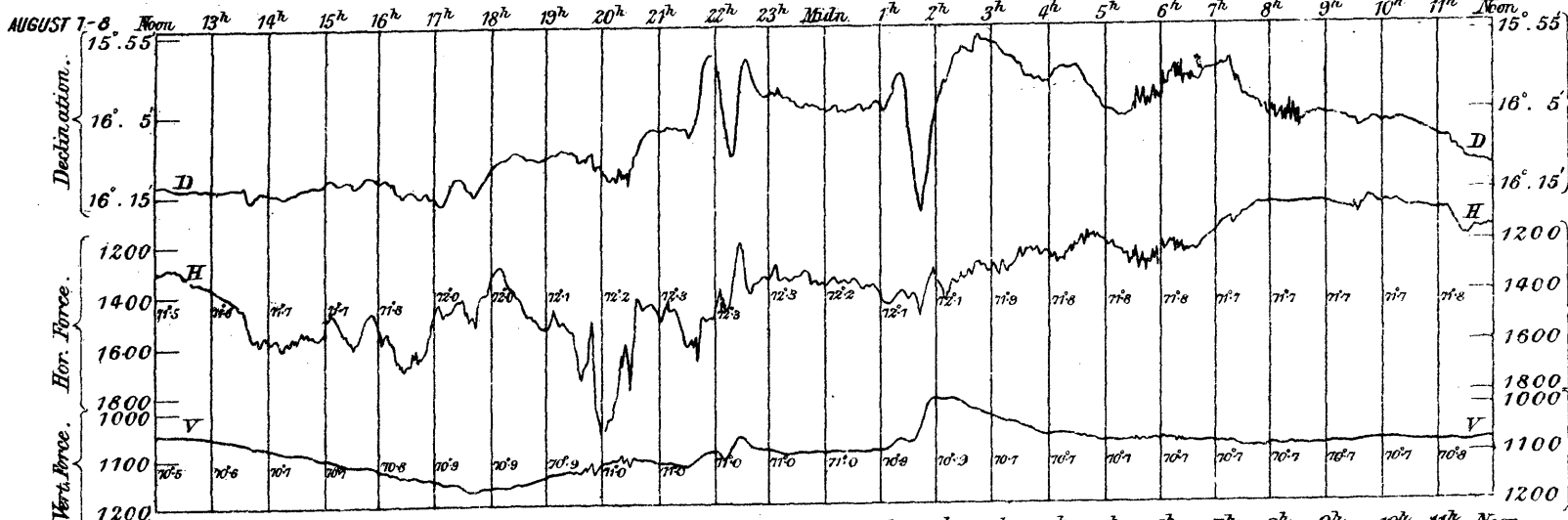
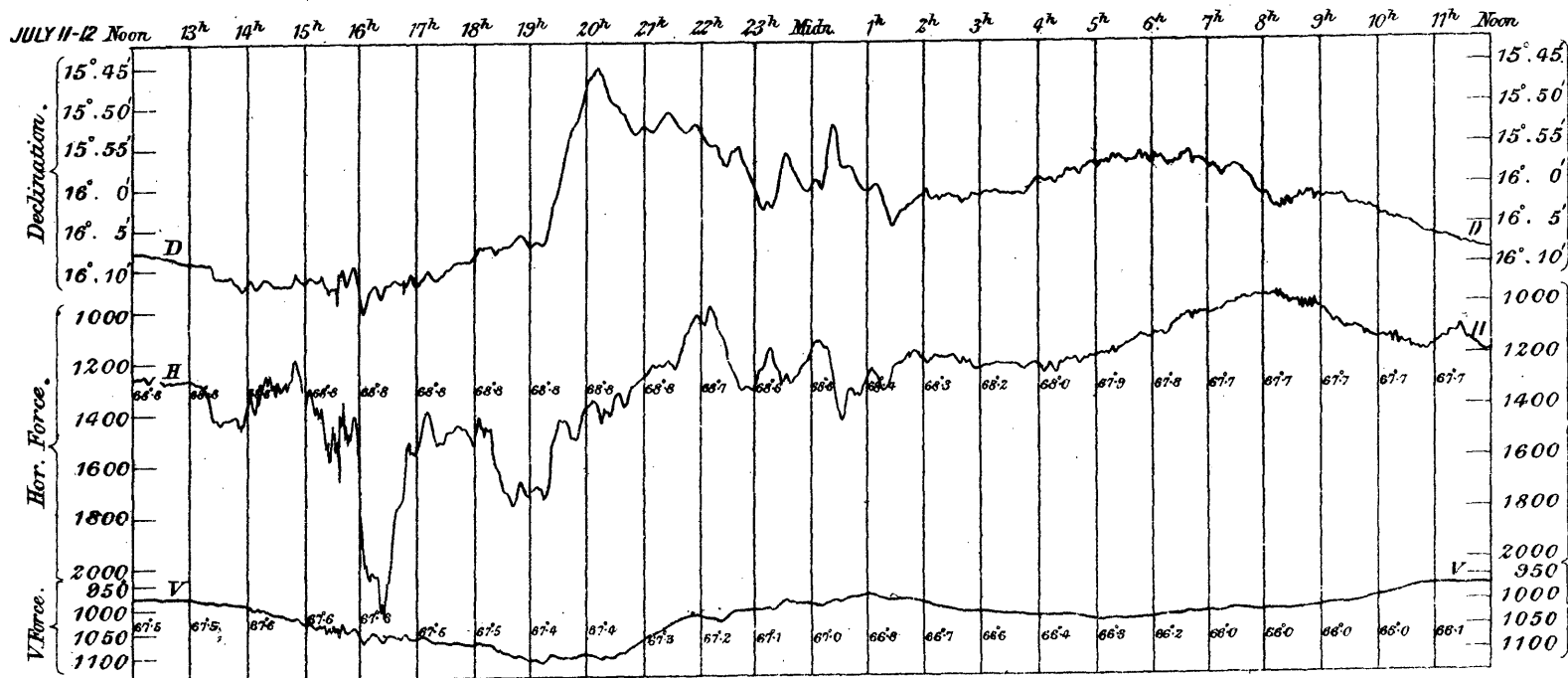
Wells & Graham, L<sup>tho</sup> London

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





Magnetic Disturbances recorded at the Royal Observatory Greenwich, 1906.



1372

Weller & Graham Ltd. Litho. London

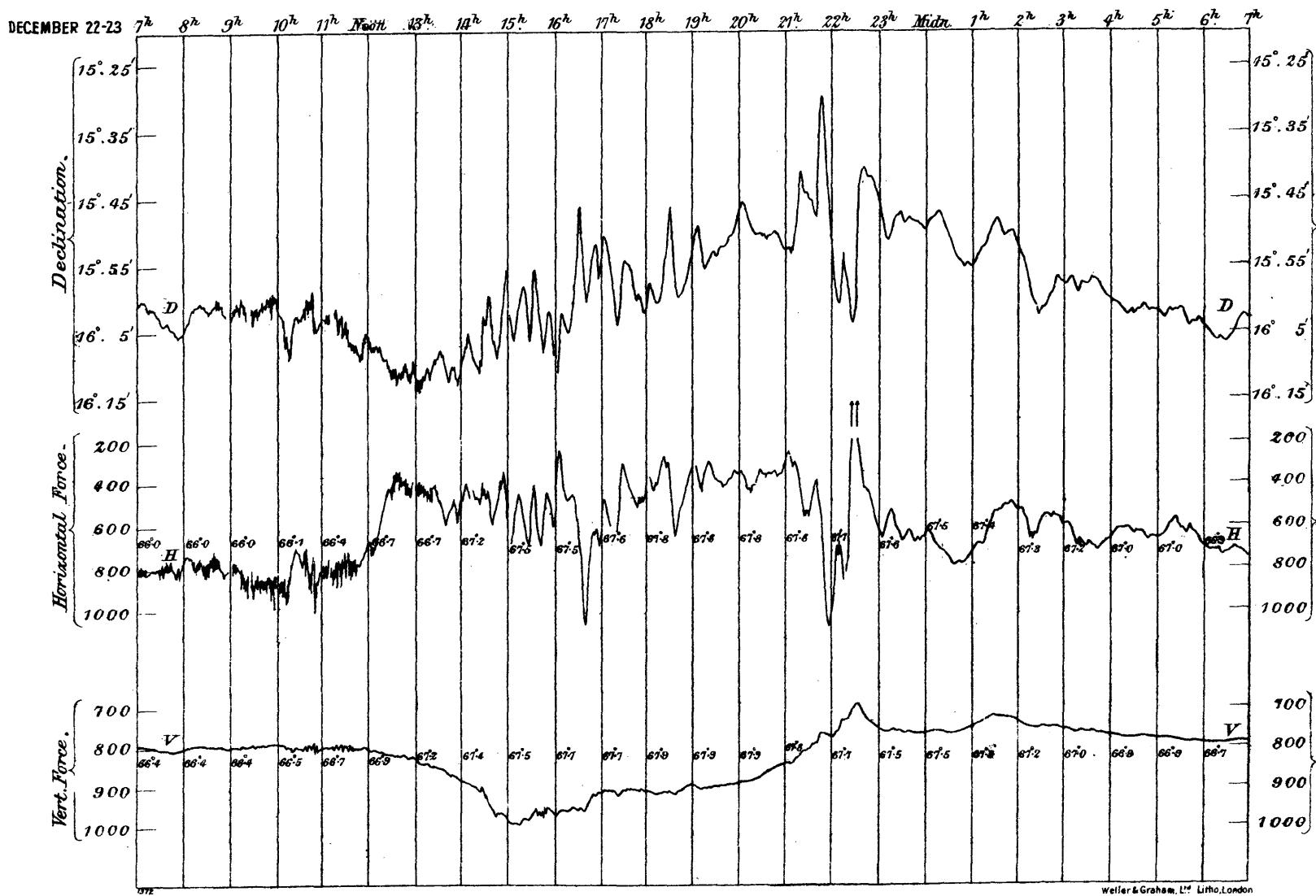
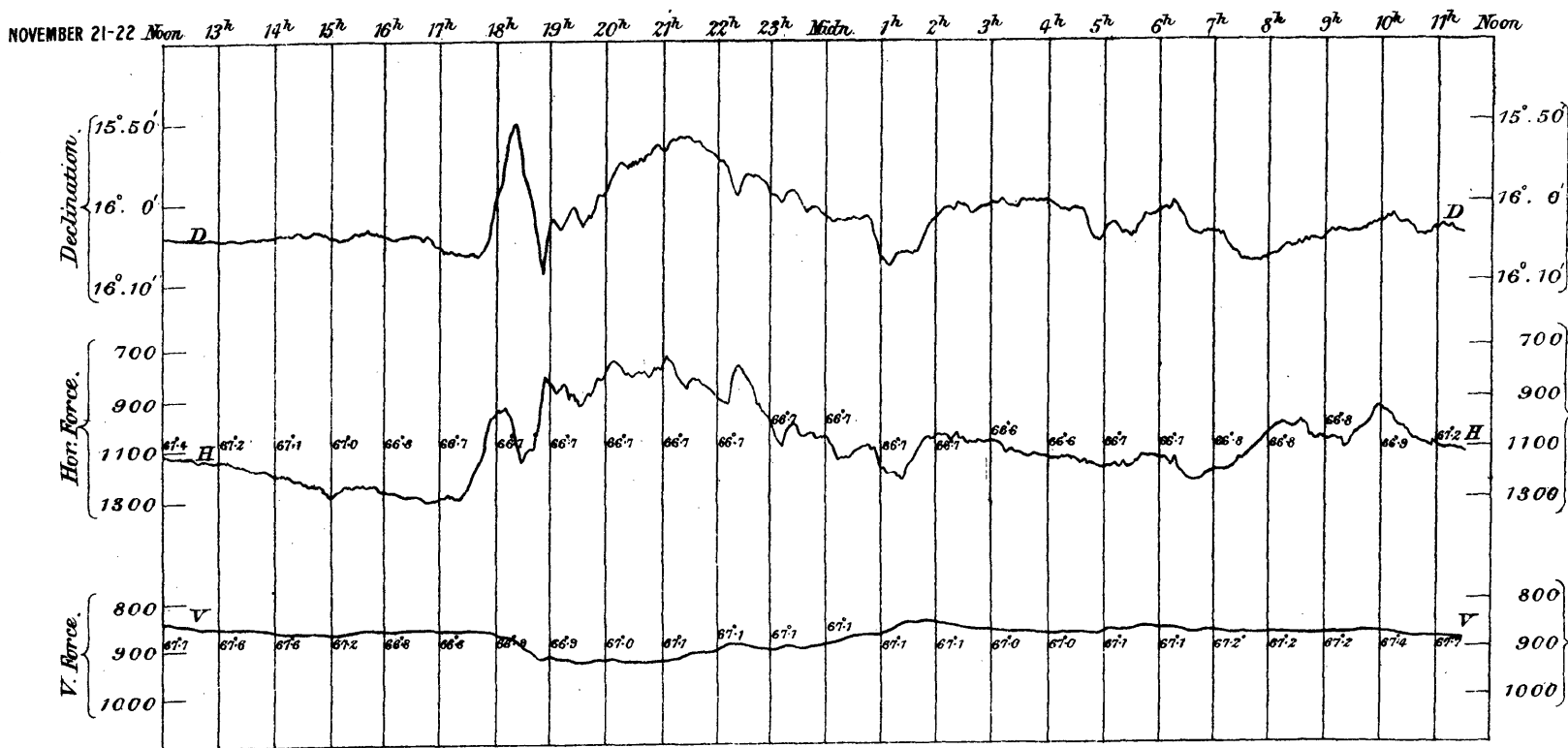
Scales for Magnetic Elements in C.G.S. measure.



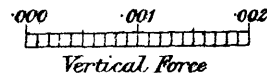
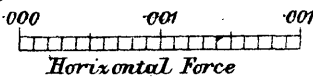
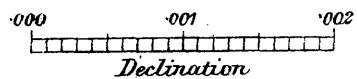




Magnetic Disturbances recorded at the Royal Observatory Greenwich 1906.



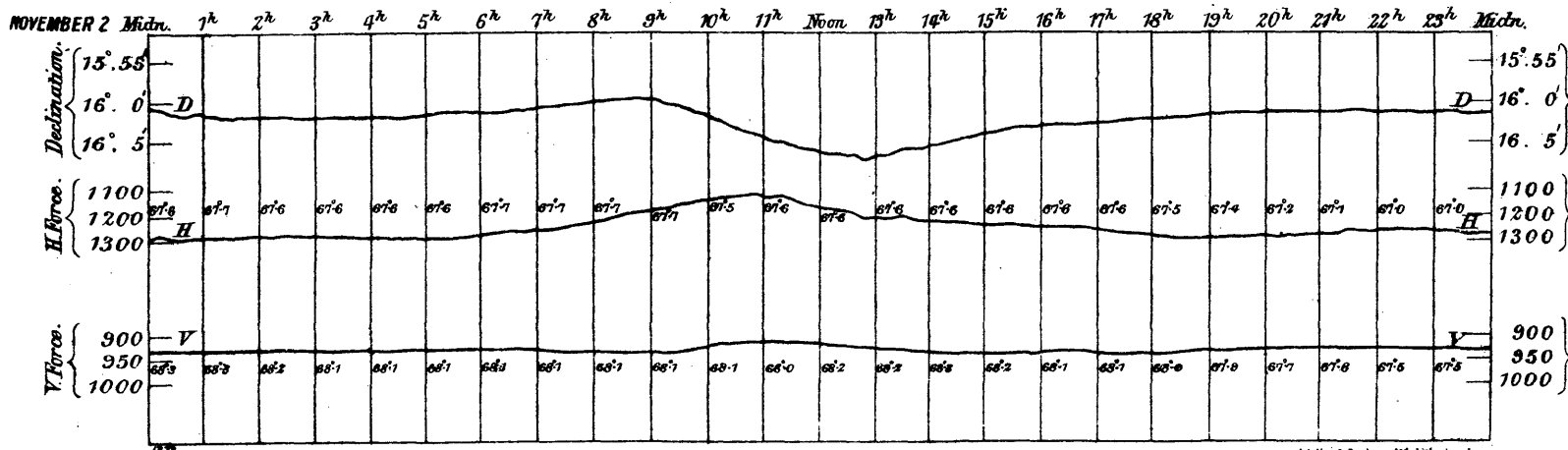
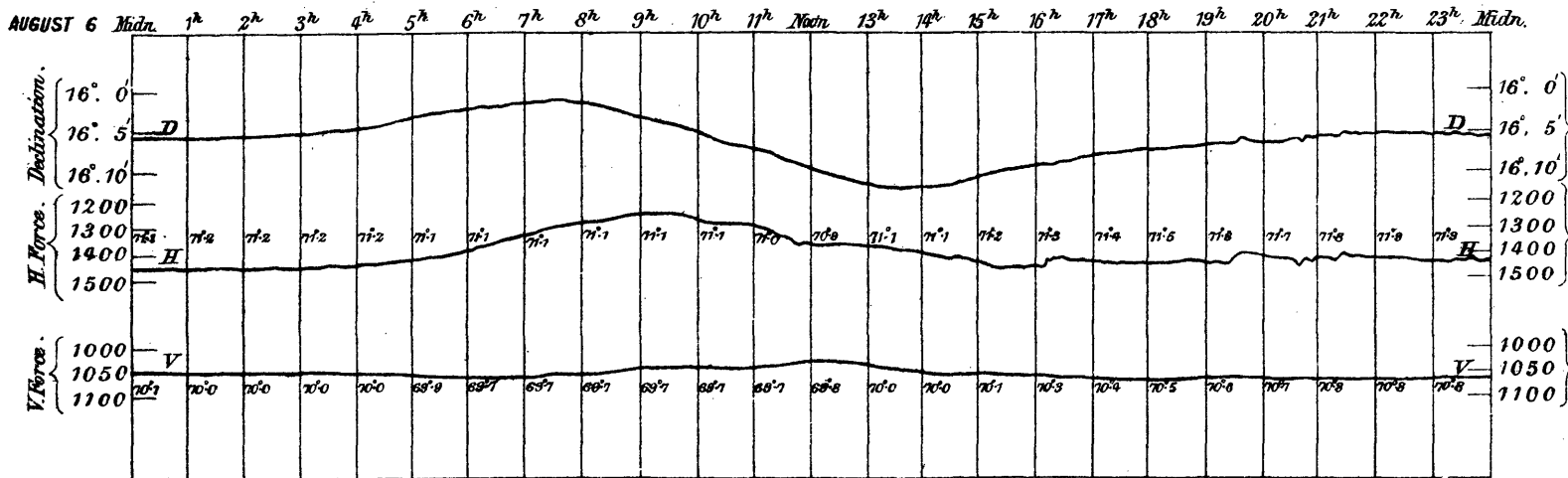
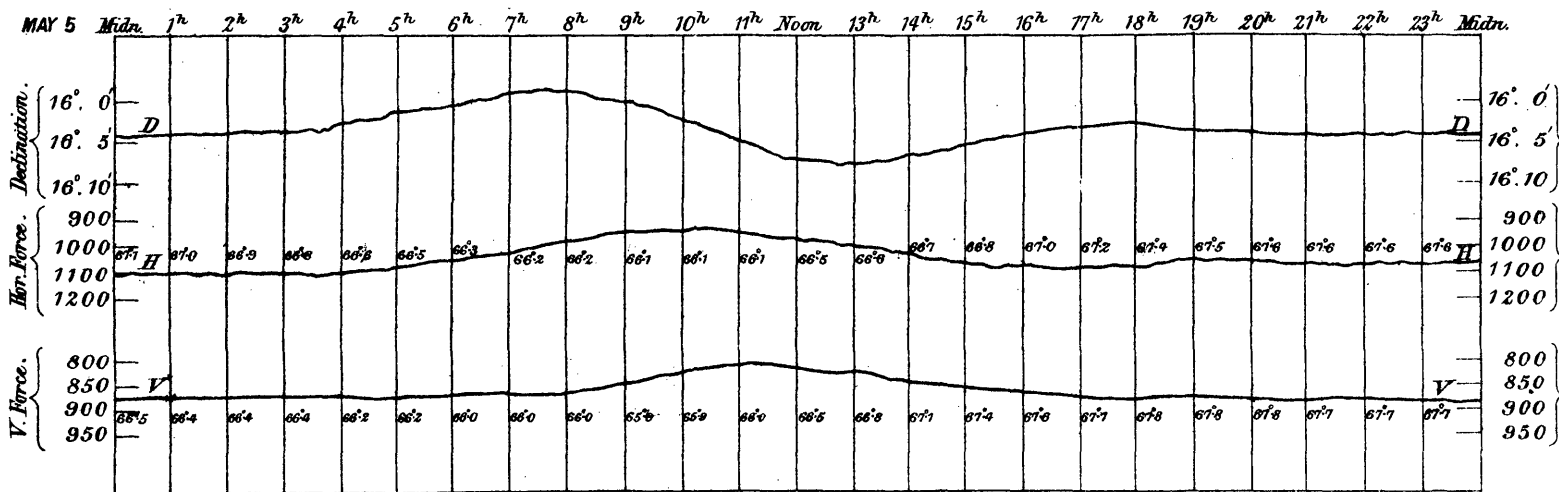
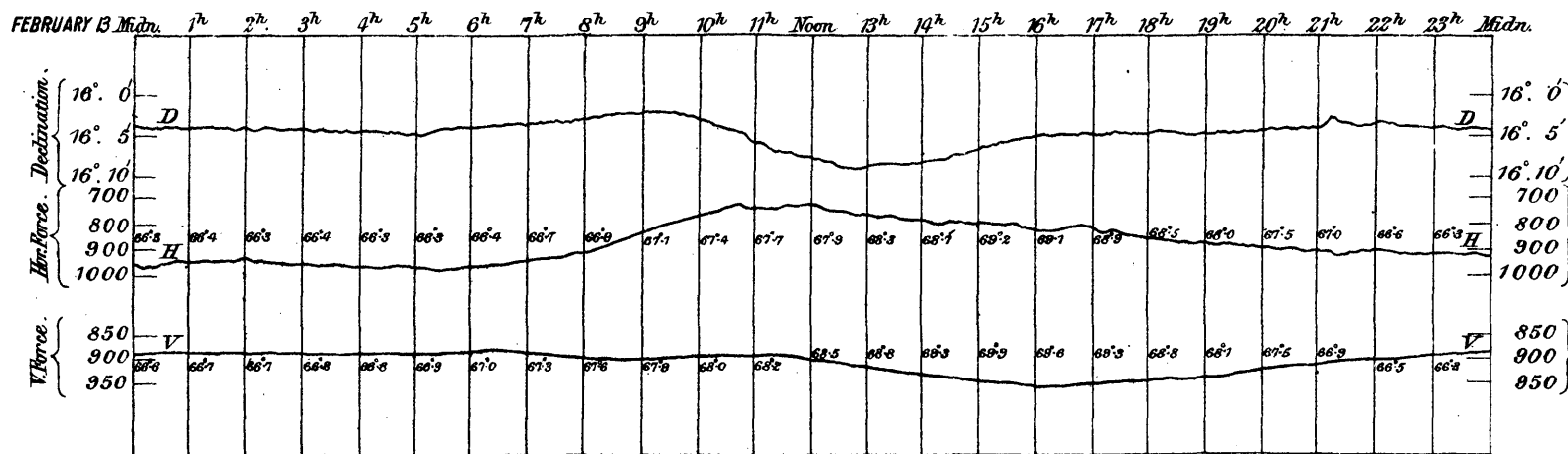
Scales for Magnetic Elements in C. G. S. measure.



Wells & Graham, L<sup>td</sup> Litho, London



Types of Magnetic Diurnal Variations at four Seasons of the Year recorded at the Royal Observatory Greenwich, 1906.



Waller & Graham, Ltd. Litho. London.

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





ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

METEOROLOGICAL OBSERVATIONS.

1906.

MONTH and DAY, 1905.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.		Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
			Of the Air.				Of Evaporation.	Of the Dew Point.	Mean.	Greatest.	Least.	Of Radiation.						
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.				Deducted Mean Daily Value.		Highest in Sun's Rays.	Lowest on the Grass.			
Jan. 1	...	29.764	37.3	27.6	9.7	31.9	- 6.7	28.9	21.9	10.0	15.5	1.5	66	40.8	24.0	0.000	0.0	mP : sP : ...
2	In Equator : First Quarter	29.604	41.6	37.3	4.3	39.8	+ 1.4	38.7	37.3	2.5	5.3	0.9	91	45.3	35.8	0.011	2.5	...
3	...	29.416	49.3	37.2	12.1	43.3	+ 5.0	42.4	41.3	2.0	5.0	1.3	93	49.3	36.0	0.085	7.5	...
4	Apogee	29.497	51.2	46.0	5.2	48.8	+ 10.5	47.6	46.3	2.5	5.9	1.3	92	77.0	41.8	0.365	0.0	...
5	...	29.640	51.3	46.8	4.5	49.3	+ 11.1	47.4	45.3	4.0	5.7	1.7	87	55.9	42.0	0.218	2.0	wwP : wP
6	...	29.288	52.6	43.6	9.0	46.2	+ 8.1	43.0	39.4	6.8	9.7	1.0	78	52.6	40.5	0.269	6.0	wN, wwP : wP, wN : mP
7	...	29.402	46.6	36.4	10.2	42.9	+ 4.9	40.7	38.1	4.8	6.8	1.3	84	65.6	32.0	0.167	0.0	wP : mP : vN, wP
8	...	29.183	46.4	38.7	7.7	43.8	+ 5.9	41.5	38.8	5.0	8.4	1.3	82	55.9	33.7	0.004	0.0	wP : mP : mP
9	Greatest Declination N.	29.339	52.2	35.7	16.5	43.5	+ 5.6	41.5	39.2	4.3	7.1	1.4	84	64.0	31.0	0.241	4.2	wP : vP, sN : mP
10	Full	29.472	45.0	36.4	8.6	41.5	+ 3.6	38.4	34.6	6.9	10.1	4.1	77	54.2	28.2	0.008	0.8	wN, wP : sP : sP
11	...	29.939	45.8	32.5	13.3	39.6	+ 1.7	37.2	34.1	5.5	8.1	2.7	81	64.0	22.3	0.000	1.5	mP : sP : vP
12	...	29.718	52.0	44.3	7.7	46.4	+ 8.5	44.4	42.1	4.3	9.2	1.1	86	61.0	42.1	0.328	4.5	vN, wwP : mP : wP, wN
13	...	29.556	53.2	39.1	14.1	47.3	+ 9.3	44.7	41.8	5.5	9.2	1.9	82	67.1	32.3	0.454	0.0	wwP, wwN : wP : mP
14	...	29.916	49.1	37.1	12.0	43.3	+ 5.3	40.5	37.2	6.1	8.8	3.8	79	69.4	30.8	0.000	7.0	wP : mP : wP
15	...	29.733	47.4	42.1	5.3	44.7	+ 6.6	42.0	38.8	5.9	9.7	2.9	80	80.0	36.0	0.030	10.0	wP : wP : wP, vN
16	In Equator	29.656	48.8	38.1	10.7	44.3	+ 6.0	41.7	38.6	5.7	8.6	1.9	80	69.0	34.0	0.609	6.0	wP : vP : vN, wP
17	Last Quarter	29.765	48.1	39.8	8.3	43.3	+ 4.8	40.2	36.5	6.8	11.2	1.8	77	64.2	36.0	0.119	7.0	vN, wP : mP : mP
18	...	29.473	49.6	38.8	10.8	43.6	+ 5.0	41.0	37.9	5.7	11.1	2.5	80	59.2	34.2	0.290	3.0	wP, wwN : vN, mP
19	...	29.923	42.9	35.4	7.5	39.3	+ 0.6	35.7	30.9	8.4	11.7	4.5	73	63.0	29.0	0.000	0.0	mP : ssP : sP
20	Perigee	30.306	39.9	29.1	10.8	35.7	- 3.1	33.0	28.9	6.8	9.0	4.1	75	56.0	21.0	0.010	0.5	mP : ssP : vP
21	...	29.983	44.0	39.1	4.9	42.0	+ 3.2	40.4	38.4	3.6	7.4	1.1	88	53.6	35.9	0.118	2.0	ssN, wwP : wP, vN : vP
22	Greatest Declination S.	30.323	39.2	31.9	7.3	36.6	- 2.2	34.3	31.0	5.6	8.3	3.2	80	55.0	23.0	0.000	1.5	sN, vP : sP : ssP
23	...	30.471	35.4	25.8	9.6	30.6	- 8.3	29.2	25.3	5.3	8.3	2.8	79	43.0	15.5	0.000	0.0	sP
24	New	30.299	39.0	26.6	12.4	34.1	- 4.8	32.0	28.4	5.7	8.9	3.5	78	50.2	17.4	0.000	0.0	sP : ssP : sP
25	...	29.713	48.3	38.8	9.5	44.4	+ 5.3	42.5	40.3	4.1	8.6	2.0	86	58.0	35.3	0.370	0.0	wP, wN : ... : ...
26	...	29.808	52.1	40.3	11.8	46.6	+ 7.3	44.9	43.0	3.6	8.0	1.3	88	75.0	34.8	0.000	0.0	...
27	...	29.987	52.3	44.9	7.4	47.8	+ 8.3	45.1	42.1	5.7	8.6	3.2	82	70.4	41.0	0.000	0.0	... : mP
28	...	30.010	50.1	45.2	4.9	47.4	+ 7.8	44.9	42.2	5.2	8.4	2.9	83	60.1	44.3	0.000	0.7	wP
29	In Equator	29.980	51.2	41.3	9.9	47.2	+ 7.5	44.5	41.5	5.7	9.7	2.3	81	67.8	35.7	0.017	2.3	wwP : wP : mP
30	...	30.181	47.8	33.3	14.5	41.5	+ 1.8	38.7	35.3	6.2	11.1	3.2	79	63.2	23.9	0.000	0.0	mP : sP : sP
31	...	30.228	44.7	31.5	13.2	38.2	- 1.5	36.8	34.9	3.3	7.9	1.3	88	44.7	24.0	0.000	1.0	mP : sP
Means	...	29.793	46.9	37.4	9.5	42.4	+ 3.8	40.1	37.1	5.3	8.8	2.3	81.9	59.8	32.0	Sum 3.713	2.3	
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 29.793, being 0.001 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 53.2 on January 13; the lowest in the month was 25.8 on January 23; and the range was 27.4. The mean of all the highest daily readings in the month was 46.9, being 3.8 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 37.4, being 3.7 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 9.5, being 0.1 greater than the average for the 65 years, 1841-1905. The mean for the month was 42.4, being 3.8 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine. Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.					
			OSLER'S.					ROBIN- SON'S.							
			General Direction.				Pressure on the Square Foot.			Horizontal Movement of the Air.		A.M.		P.M.	
			A.M.		P.M.		Greatest.	Mean of 24 Hourly Measures.	Miles.						
Jan. 1	0°0	7·8	ESE : E	ESE : SE	2·4	0·25	304	9	: 10	: 10	9	: 10	: 10 m.-r		
2	0°0	7·9	SE	SE	4·5	0·45	340	10	: 10	: 10, oc.-slt.-r	10	: 10	: 10, oc.-slt.-r : 10		
3	0°0	7·9	SE : ESE	SSE : SSW : S	2·0	0·08	233	10, r	: 10	: 10, oc.-slt.-r	10, li.-sc., oc.-th.-r :	10	: p.-cl, r		
4	1·4	7·9	SW : SSW	SW : SSW	3·7	0·21	355	9, li.-shs :	10, shs.-r :	v, shs.-r	8	: 10, oc.-r	: 10, slt.-r, w		
5	1°0	7·9	W : WSW	WSW : SW	4·6	0·37	407	10, oc.-r, w :	10, w :	9, r	9	: p.-cl, li.-ha, lu.-co :	p.-cl, r		
6	0°0	8°0	S : SW : WSW	W	17°0	2·24	767	10, r, w :	10, g :	9, sc, cu.-s, g	10, r, st.-w :	9, st.-w	: 9, w		
7	3·3	8°0	W : WSW	SW : SSW : SSE	3·6	0·23	330	p.-cl	: o, ho.-fr :	1, ci, slt.-f	p.-cl, ci.-s, cu.-s :	10, fq.-r	: 10, slt.-r		
8	1°0	8°0	W : WSW : WNW	NNW : WNW : WSW	5°0	0·58	477	10, slt.-r :	1	: 6, w	10, w, oc.-slt.-r :	p.-cl	: 2		
9	0°3	8°1	WSW : SSW	SW : WSW	11°0	0·75	504	o	: li.-cl	: 10, oc.-slt.-r, w	9, t.-sm, hy.-sh, li, w :	p.-cl, w	: li.-cl, w		
10	5·2	8°1	WSW	W : WSW	6·5	0·42	448	9, th.-r :	o	: 2, cu, ci.-cu	2, cu	: 1, cu.-s, h	: o, h		
11	5·2	8°1	WSW	SW	12°0	0·40	390	o, ho.-fr :	o, ho.-fr :	1, ci, ci.-s	1, ci, ci.-s, so.-ha :	p.-cl	: 10, st.-w		
12	0°1	8°1	SW : WSW	WSW : SW : SSW	16°0	0·80	429	9, oc.-r, g	: p.-cl		p.-cl	: 10, r	: 10, fq.-r, w		
13	2·4	8°2	SW : WSW : W	WSW : SW	12°5	1°12	567	10, oc.-r, st.-w :	10, r	: 9, oc.-r, w	3, cu	: p.-cl	: th.-cl, w		
14	5·8	8°2	WSW	WSW : SW	4·6	0·72	495	o, ho.-fr :	o	: 2, ci, ci.-s	li.-cl, slt.-sh :	p.-cl, slt.-sh	: 8		
15	4·1	8°2	SW : SSW	SSW : SW	11°0	0·97	523	8	: p.-cl, cu.-s, ci.-cu, st.-w		8, w, so.-ha :	9, sh.-r, w	: 9, w		
16	2·6	8°3	SW : WSW : SSW	SW : SSW	13°5	1°23	605	p.-cl, w :	1	: p.-cl, oc.-shs, w	9, cu, n, st.-w :	9, fq.-r, st.-w :	10, r, w		
17	5·3	8°4	WSW	WSW : SW : SSW	7°0	0·49	447	9, oc.-r, w :	p.-cl	: 1, th.-cl	5, ci.-s, ci.-cu, so.-ha :	8	: p.-cl, slt.-sh		
18	0°6	8°4	SSW : SW	WSW : WNW	19°4	1°84	687	10	: 10, r	: 10, hy.-r, g	v, hy.-shs, g :	10, r, g	: p.-cl, st.-w		
19	5°1	8°4	W : NNW	NNW : N	12°0	0·85	458	p.-cl	: p.-cl	: 2, ci.-cu, st.-w	1, li.-cl, w :	9	: 1		
20	0°2	8°5	NNW : N : WSW	WSW : SW	5°0	0·36	349	o, ho.-fr :	o	: 5, th.-cl, slt.-f	10, ci.-cu	: 10	: 10, slt.-r, w		
21	0°0	8°5	WSW : NNW : N	N : NNE : NE	5°5	0·71	437	10, slt.-r, w :	10	: 10, oc.-slt.-r	10, oc.-slt.-r :	10, oc.-slt.-r, w :	9, w		
22	0°7	8°6	NNE : N	NNE : NE	3·4	0·28	320	p.-cl, ho.-fr :	9	: 8, cu.-s	8, cu.-s, n :	p.-cl	: 1		
23	0°0	8°6	NE : Calm : SSE	W : SW : SSW	0°1	0°00	107	p.-cl, ho.-fr :	1, h, ho.-fr, slt.-f :	3	9, glm	: p.-cl, slt.-f	: p.-cl, ho.-fr		
24	1°0	8°7	SW	SW : SSW	2°9	0°16	274	9, ho.-fr :	10	: 10	8	: li.-cl, ho.-fr	: p.-cl		
25	0°0	8°7	SSW : SW : W	WNW : W : WSW	6°6	0°60	442	9, r	: 10, r, w	: 10, oc.-r, w	9, so.-ha	: 10	: 10		
26	0°8	8°7	WSW	WSW : WNW : SW	1°2	0°08	288	9	: 10	: 8, h	p.-cl, h	: 9	: p.-cl, hy.-d		
27	3·3	8°8	SW : WSW	WSW : SW	2°7	0°37	387	10	: 10	: 7	4, th.-cl	: 10	: 10		
28	0°4	8°9	SW	SW	5°0	0°86	523	10, w	: 10, w		10	: 10			
29	0°3	8°9	SW	WSW : NNW	4°3	0°58	432	10	: 10	: 9, cu.-s, s	9, cu.-s, slt.-sh :	10	: p.-cl		
30	4°8	9°0	WSW : SW	W : WSW	2°8	0°11	294	o, ho.-fr :	o, ho.-fr :	1, ci, ci.-s	4, ci.-cu, cu.-s :	8, ci.-cu	: p.-cl		
31	0°0	9°0	WSW : W	SW : NW : WSW	0°9	0°02	192	1, ho.-fr :	1, slt.-f	: p.-cl, slt.-f	10, f, glm	: 10	: 10		
Means	1·8	8·3	...	...	...	0·58	413								
Number of Column for Reference.	19	20	21	22	23	24	25			26			27		

The mean *Temperature of Evaporation* for the month was 40°·1, being 2°·9 higher than  
 The mean *Temperature of the Dew Point* for the month was 37°·1, being 1°·8 higher than  
 The mean *Degree of Humidity* for the month was 81·9, being 6°·1 lower than  
 The mean *Elastic Force of Vapour* for the month was 0<sup>in</sup>·221, being 0<sup>in</sup>·015 greater than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2<sup>gr</sup>·6, being 0<sup>gr</sup>·2 greater than  
 The mean *Weight of a Cubic Foot of Air* for the month was 550 grains, being 4 grains less than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 6·8.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·212. The maximum daily amount of *Sunshine* was 5·8 hours on January 14.  
 The highest reading of the *Solar Radiation Thermometer* was 80°·0 on January 15; and the lowest reading of the *Terrestrial Radiation Thermometer* was 15°·5 on January 23.  
 The mean daily distribution of *Ozone* for the 12 hours ending 9<sup>h</sup> was 1·5; for the 6 hours ending 15<sup>h</sup> was 0·6; and for the 6 hours ending 21<sup>h</sup> was 0·2.  
 The *Proportions of Wind* referred to the cardinal points were N. 3, E. 3, S. 10, and W. 15.  
 The *Greatest Pressure of the Wind* in the month was 19·4 lbs. on the square foot on January 18. The mean daily *Horizontal Movement of the Air* for the month was 413 miles; the greatest daily value was 767 miles on January 6; and the least daily value was 107 miles on January 23.  
*Rain* (0<sup>in</sup>·005 or over) fell on 18 days in the month, amounting to 3<sup>in</sup>·713, as measured by gauge No. 6 partly sunk below the ground; being 1<sup>in</sup>·832 greater than the average fall for the 65 years, 1841-1905.



MONTH and DAY, 1906.	Phases of the Moon.	BARO- METER.  Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.								Difference between the Air Temperature and Dew Point Temperature.			TEMPERATURE.  Of Radiation.		Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground.	Daily Amount of Ozone.	Electricity.
			Of the Air.					Of Evapo- ration.	Of the Dew Point.	Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	Highest in Sun's Rays.	Lowest on the Grass.			
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.									
Feb. 1	First Quarter: Apogee	30.105	46.2	39.3	6.9	43.7	+ 4.1	41.7	39.4	4.3	8.6	1.7	85	48.0	34.8	0.013	3.0	wP : mP : sP
2	...	29.903	49.4	39.6	9.8	43.5	+ 4.0	39.9	35.6	7.9	11.8	4.0	74	79.4	35.0	0.020	0.0	wP : mP : ssN, sP
3	...	29.609	42.3	36.1	6.2	39.5	0.0	35.7	30.7	8.8	14.3	3.7	71	50.5	32.1	0.053	2.5	mP, ssN : sP
4	...	29.820	39.5	33.7	5.8	36.8	- 2.7	33.8	29.5	7.3	11.3	2.9	76	70.8	29.7	0.018	4.5	wP : mP : sP
5	...	30.059	41.0	32.1	8.9	35.3	- 4.3	33.4	30.4	4.9	8.3	2.5	82	75.2	27.3	0.000	0.0	mP : sP : ssP
6	Greatest Declination N.	30.106	36.0	32.2	3.8	34.2	- 5.4	31.1	25.7	8.5	10.3	1.5	71	49.5	26.2	0.018	0.0	vP : ssP : ssP, ssN
7	...	30.127	44.2	33.7	10.5	38.3	- 1.2	36.3	33.6	4.7	10.1	1.4	84	67.0	25.5	0.003	1.0	mP : ssP : ssP
8	...	29.746	46.0	32.6	13.4	37.9	- 1.4	36.1	33.7	4.2	8.2	1.7	85	59.4	25.0	0.144	3.0	mP : vP, ssN : ssP, ssN
9	Full	29.623	36.7	30.4	6.3	33.3	- 5.8	30.3	24.5	8.8	11.3	5.4	70	64.0	27.5	0.000	1.0	sP : ssP : ssP
10	...	29.074	49.7	31.0	18.7	41.1	+ 2.2	39.4	37.3	3.8	9.0	1.5	87	54.6	27.1	0.197	11.0	vP : mP, wN : vN, sP
11	...	28.859	44.0	34.3	9.7	39.3	+ 0.5	36.5	32.8	6.5	9.7	2.9	78	61.4	30.0	0.035	6.0	wP, vN : mP, mN : sP, ssN
12	In Equator	29.319	40.7	28.0	12.7	34.1	- 4.7	31.9	28.1	6.0	9.0	3.9	78	59.2	17.3	0.000	0.0	mP : ssP : ssP
13	Perigee	29.344	40.7	27.1	13.6	33.7	- 5.3	32.2	29.5	4.2	11.7	1.8	85	80.0	17.0	0.019	3.0	sP
14	...	29.463	46.2	30.1	16.1	37.2	- 2.1	35.0	31.9	5.3	11.2	1.6	82	91.0	24.0	0.000	0.5	sP
15	...	29.500	43.2	32.4	10.8	37.7	- 1.7	36.3	34.4	3.3	7.6	1.2	88	66.0	24.2	0.198	4.0	vP, ssN : ssP
16	Last Quarter	29.437	50.7	37.1	13.6	44.9	+ 5.4	42.7	40.1	4.8	12.6	1.1	84	73.0	33.1	0.066	9.5	wP, wwN : mP : mP
17	...	29.476	48.0	39.1	8.9	43.2	+ 3.6	42.2	41.0	2.2	4.6	1.1	92	48.0	38.0	0.604	0.0	wP : vN : vN, vP
18	...	29.686	43.8	38.5	5.3	40.3	+ 0.8	39.4	38.3	2.0	4.4	0.4	93	42.7	37.4	0.195	0.5	wP : wN, wP : vN, vP
19	Greatest Declination S.	29.586	46.2	38.0	8.2	42.3	+ 2.8	40.8	39.0	3.3	6.8	0.7	89	65.0	35.8	0.067	4.5	wP, wN : mP, vN : mP, vN
20	...	29.870	45.4	35.6	9.8	39.7	+ 0.2	35.8	30.7	9.0	14.7	2.9	71	80.0	30.7	0.000	2.0	mP : sP : sP
21	...	30.042	43.5	28.1	15.4	35.5	- 4.1	32.7	28.4	7.1	13.0	1.3	75	68.8	23.7	0.000	0.0	sP
22	...	29.894	44.6	26.1	18.5	35.0	- 4.7	32.6	28.8	6.2	11.4	3.7	77	76.0	22.0	0.000	2.0	mP
23	New	29.473	38.2	31.0	7.2	35.8	- 4.0	33.5	30.0	5.8	8.9	3.4	79	50.5	20.4	0.007	0.0	wP : mP : sP
24	...	29.574	42.6	28.0	14.6	34.5	- 5.5	32.9	30.2	4.3	11.0	0.4	84	67.0	16.1	0.000	2.5	mP : mP : sP
25	...	29.344	49.7	37.5	12.2	43.5	+ 3.4	39.3	34.3	9.2	15.0	1.8	70	83.0	30.6	0.060	8.0	wP, wN : mP : sP
26	In Equator	29.294	50.1	38.2	11.9	43.0	+ 2.8	40.6	37.7	5.3	10.3	2.2	82	90.0	31.2	0.001	1.5	wP : mP : sP
27	...	29.121	47.0	35.7	11.3	41.7	+ 1.4	39.2	36.1	5.6	11.0	1.6	81	80.6	32.1	0.079	2.0	wP, vN : vP : ssP, ssN
28	...	29.587	44.5	33.5	11.0	38.8	- 1.5	35.6	31.4	7.4	13.9	2.7	75	68.0	28.7	0.007	3.0	vP, wN : ssP : mP
Means	...	29.609	44.3	33.5	10.8	38.7	- 0.8	36.3	33.0	5.7	10.4	2.2	80.3	66.7	27.9	1.804	2.7	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 29.609, being 0.1193 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 50.7 on February 16; the lowest in the month was 26.1 on February 22; and the range was 24.6. The mean of all the highest daily readings in the month was 44.3, being 0.9 lower than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 33.5, being 0.7 lower than the average for the 65 years, 1841-1905. The mean of the daily ranges was 10.8, being 0.2 less than the average for the 65 years, 1841-1905. The mean for the month was 38.7, being 0.8 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine. hours.	Sun above Horizon. hours.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						CLOUDS AND WEATHER.					
			OSLER'S.			ROBIN-SON'S.			A.M.	P.M.				
			General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.							
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.								
Feb. 1	0.0	9.1	WSW : SW	W : NW : WSW	1.9	0.25	336	10	: 10	: 10, oc.-th.-r	10, oc.-th.-r, glm :	p-cl	: 9	
2	2.7	9.1	WSW : W	W : WNW : NW	13.4	0.78	527	9	:	p-cl	: p-cl, w	9, li.-shs, w	: 10, oc.-shs	
3	2.4	9.2	NW : W : NNW	N : NNW	17.8	1.13	547	10, shs.-r	: 10, shs.-r	: 9, shs.-r	8, cu.-s, n, sn, w :	p-cl, sn, st.-w	: p-cl, st.-w	
4	5.5	9.3	N	N : NNE	13.5	1.75	568	9, w	:	4, cu, li.-cl, st.-w	p.-cl, st.-w	: p.-cl, sh.-r, st.-w	: 10, sc, oc.-shs	
5	3.1	9.3	N : NNE	NE	2.1	0.25	289	10	:	10	: p.-cl	8, cu, n	: 5, ci.-cu, th.-cl	: 8
6	0.0	9.4	ENE : NE	WSW	0.5	0.01	155	9, ho.-fr	: 10	: 9, glm	10, glm	: 10	: 10, sn, r	
7	3.6	9.4	WNW : N : NNW	N : NNW : WSW	1.3	0.10	225	9, oc.-th.-r :	p.-cl, ho.-fr :	1, ci, so.-ha	4, cu, so.-ha :	3, th.-cl, slt.-f :	0, ho.-fr, lu.-ha	
8	0.0	9.5	WSW : SW	WSW : NNW : WNW	14.7	0.99	529	9	:	10	: 8, sc, w	10, fq.-r, st.-w, t.-sm.	: p.-cl, w	: p.-cl, oc.-sn,
9	5.3	9.5	WNW : NW : NNW	NW : W : SW	11.0	1.01	535	p.-cl, ho.-fr, w :	p.-cl, w	: 1, w	1, cu, w	: 1	: 7, th.-cl	
10	0.0	9.6	SSW : SW	SSW : SW	13.3	1.11	586	10, sn	: 10, r, w	: 10, sc, r, w	10, sc, oc.-m.-r,	: 9, oc.-slt.-r, st.-w	: p.-cl, lu.-ha, w	
11	1.1	9.7	SW	NW : WNW : W	6.5	0.76	496	9, slt.-sh, w :	p.-cl, sl, w :	8, cu, n	10, oc.-shs	: p.-cl, sh.-r, sn :	9	
12	1.6	9.7	WNW : WSW : W	WNW : WSW : SW	1.3	0.10	272	p.-cl, ho.-fr :	p.-cl	: 6, ci.-s	5, cu, ci.-s	: 2	: 0, ho.-fr	
13	1.5	9.8	SSW : S	S : SSE : WSW	2.8	0.16	258	0, ho.-fr :	p.-cl, th.-cl,	ho.-fr :	9, th.-cl, so.-ha	8, s, sh.-r, sn :	10, sn	: 10, sn, sl
14	7.9	9.8	WSW : SW	SW : SSW : S	1.6	0.08	261	p.-cl, ho.-fr :	0, ho.-fr	: 1, ci	2, cu	: 1, cu, th.-cl	: 1, ho.-fr	
15	0.5	9.9	S : SSE : SW	W : SSW : S	1.8	0.09	260	8, r	: 10, r	: 9, oc.-slt.-r	10	: p.-cl, ho.-fr :	p.-cl, ho.-fr	
16	0.4	10.0	S : SSW : SW	WSW : SW : SSW	4.9	0.62	433	9, r	: 10, slt.-r, w :	9, oc.-slt.-r	9, s, so.-ha :	10, sc, oc.-r	: 10, sc, oc.-slt.-r	
17	0.0	10.0	SSW : NNE	NE : NNE	2.2	0.26	331	10, slt.-r	:	10, c.-r	10, c.-r	: 10		
18	0.0	10.1	NE : ENE	E : SE	1.5	0.14	255	10	: 10	: 10, oc.-slt.-r	10, oc.-hy.-shs	: 10, oc.-slt.-r		
19	0.1	10.1	SSW : SW : S	S : SW : WSW	8.0	0.64	453	10, oc.-slt.-r :	10	: 9, so.-ha	10, sc, oc.-th.-r :	10, fq.-r, w	: 10, r, w	
20	4.9	10.2	W : WNW	NW : WNW	6.2	0.90	527	10, w	: li.-cl, w	: 5, cu.-s, so.-ha, w	7, cu.-s, n, w :	p.-cl, cu.-s	: 0	
21	4.8	10.3	WSW : W : NW	NNW : N : S	0.7	0.02	176	p.-cl, ho.-fr :	li.-cl	: 5, slt.-f	1, th.-cl	: 0, slt.-f, ho.-fr		
22	1.5	10.4	SSW : Calm : SE	SSE : ESE	1.0	0.04	146	0, f, ho.-fr :	li.-cl	: 5, ci, th.-cl,	9, ci	: 10	: 10	
23	0.0	10.4	ESE : E	E : NE : N	2.8	0.22	262	10	:	10, s, sn	10, s, sn	: p.-cl	: 0, ho.-fr	
24	2.5	10.5	N : SW	SW	1.8	0.08	217	p.-cl, ho.-fr :	10	: p.-cl	p.-cl	: 9, oc.-slt.-r, sl :	9	
25	5.0	10.5	SSW : W	WNW : W : SW	8.0	0.87	535	10, r	: p.-cl, w	: 5, cu, ci.-s, w	8, cu.-s, w :	p.-cl	: 1	
26	0.6	10.6	WSW : SW	WSW : SW	2.7	0.29	337	p.-cl	: 10, li.-sh	: 9, th.-cl, so.-ha	9, th.-cl, so.-ha :	9	: 10, oc.-th.-r	
27	3.0	10.7	SW : S : WSW	W : WNW : NW	6.2	0.54	394	10, oc.-r	: 10, sh.-r	: 9, cu, n, w	8, w	: 9, m.-r, w	: 10, slt.-r	
28	4.8	10.7	N : NNW	W : WSW	4.8	0.77	472	10, slt.-r, w :	p.-cl, ho.-fr :	4, th.-cl, so.-ha	5, th.-cl, h, so.-ha :	10, oc.-slt.-r, w	: 10	
Means	2.2	9.9	...	...	...	0.50	371							
Number of Column for Reference.	19	20	21	22	23	24	25	26			27			

The mean *Temperature of Evaporation* for the month was 36°.3, being 1°.4 lower than  
 The mean *Temperature of the Dew Point* for the month was 33°.0, being 2°.4 lower than  
 The mean *Degree of Humidity* for the month was 80.3, being 5.2 less than  
 The mean *Elastic Force of Vapour* for the month was 0.1188, being 0.0019 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2878.2, being 0.2 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 551 grains, being 2 grains less than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 6.9.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.227. The maximum daily amount of *Sunshine* was 7.9 hours on February 14.  
 The highest reading of the *Solar Radiation Thermometer* was 91°.0 on February 14; and the lowest reading of the *Terrestrial Radiation Thermometer* was 16°.1 on February 24.  
 The mean daily distribution of *Ozone* for the 12 hours ending 9<sup>h</sup> was 1.8; for the 6 hours ending 15<sup>h</sup> was 0.7; and for the 6 hours ending 21<sup>h</sup> was 0.2.  
 The *Proportions of Wind* referred to the cardinal points were N. 5, E. 2, S. 8, and W. 12. One day was calm.  
 The *Greatest Pressure of the Wind* in the month was 17.8 lbs. on the square foot on February 3. The mean daily *Horizontal Movement of the Air* for the month was 371 miles; the greatest daily value was 586 miles on February 10; and the least daily value was 146 miles on February 22.  
*Rain* (0.1005 or over) fell on 18 days in the month, amounting to 1.1804, as measured by gauge No. 6 partly sunk below the ground; being 0.1324 greater than the average fall for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Phases of the Moon.	BARO- METER.  Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.								Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.		Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
			Of the Air.					Of Evapo- ration.  Mean of 24 Hourly Values.	Of the Dew Point.  De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Of Radiation.						
			Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.						Highest in Sun's Rays.		Lowest on the Grass.				
Mar. 1	Apogee	29.564	49.8	43.7	6.1	46.3	+ 5.9	44.0	41.4	4.9	7.4	2.9	84	63.0	42.3	0.007	0.0	mP	
2	...	29.712	50.1	33.7	16.4	43.7	+ 3.3	42.1	40.2	3.5	8.5	1.9	87	61.2	25.5	0.011	0.0	wP : mP : sP	
3	First Quarter	30.243	48.9	27.4	21.5	38.6	- 1.9	35.3	30.9	7.7	14.3	3.2	74	83.9	19.4	0.000	0.0	sP : mP	
4	...	30.198	58.2	36.3	21.9	45.2	+ 4.5	41.0	36.2	9.0	16.0	2.4	71	103.2	24.5	0.000	1.8	mP	
5	Greatest Declination N.	30.002	52.3	36.2	16.1	45.2	+ 4.3	43.0	40.5	4.7	8.6	2.7	84	85.1	22.0	0.004	5.2	wP : mP : sN, mP	
6	...	30.119	64.2	47.3	16.9	53.0	+ 12.0	49.2	45.4	7.6	16.3	2.1	75	103.5	37.5	0.000	2.0	wP : wP : mP	
7	...	30.081	65.0	42.5	22.5	53.5	+ 12.5	48.2	43.0	10.5	19.6	4.2	67	107.0	29.9	0.000	7.5	wP : wP : mP	
8	...	29.754	50.9	44.0	6.9	47.4	+ 6.3	45.4	43.2	4.2	6.9	2.3	86	57.0	38.0	0.114	8.5	wP : wwP, wwN : mP	
9	...	29.705	48.1	39.0	9.1	43.7	+ 2.7	38.8	33.0	10.7	15.1	4.0	66	77.6	32.2	0.014	3.5	ssN, wP : sP : ssP	
10	Full	29.813	48.8	34.5	14.3	41.2	+ 0.3	38.9	36.0	5.2	13.4	1.3	82	74.6	29.0	0.232	3.5	mP : vP, ssN : ssN, wP	
11	...	29.233	52.7	39.7	13.0	47.2	+ 6.2	44.9	42.4	4.8	9.2	1.1	84	83.0	36.1	0.126	12.5	wP : wP : vN, wP	
12	In Equator	29.365	40.9	30.1	10.8	35.7	- 5.4	32.4	27.4	8.3	18.4	4.5	71	79.3	25.5	0.007	3.5	wP : sP : ssP	
13	Perigee	29.726	38.1	29.1	9.0	33.2	- 8.1	29.3	21.7	11.5	16.8	1.7	61	76.2	25.2	0.082	0.0	vP, ssN : ssP : sP	
14	...	29.803	43.0	31.1	11.9	36.6	- 4.9	34.0	30.2	6.4	13.4	1.6	78	91.9	30.2	0.018	1.8	mP, mN : ssP : mP, sN	
15	...	29.769	55.1	39.1	16.0	49.3	+ 7.6	46.7	43.9	5.4	9.6	1.8	82	80.5	37.5	0.024	11.4	wP	
16	...	29.840	55.3	48.1	7.2	51.7	+ 9.8	49.2	46.7	5.0	8.2	3.0	83	58.0	44.5	0.004	4.8	wP	
17	Last Quarter	29.892	63.9	44.1	19.8	52.5	+ 10.5	46.7	40.8	11.7	20.5	4.2	66	111.3	39.9	0.000	7.0	wP : wP : mP	
18	Greatest Declination S.	29.775	48.4	38.1	10.3	45.2	+ 3.2	42.0	38.3	6.9	13.0	2.0	77	51.5	32.8	0.032	0.2	mP : mP, sN : mP	
19	...	29.934	44.6	36.3	8.3	39.3	- 2.6	36.9	33.8	5.5	10.8	3.6	81	94.0	31.6	0.085	0.8	mP, mN : ssP, ssN : sP	
20	...	30.012	46.3	35.8	10.5	39.0	- 2.9	36.7	33.7	5.3	12.5	2.8	82	80.8	32.7	0.069	0.5	sP : sP, vN : ssN, sP	
21	...	29.923	43.2	31.7	11.5	36.7	- 5.2	34.5	31.3	5.4	10.4	3.7	82	101.2	27.0	0.030	5.0	mP : ssP, ssN : ssP	
22	...	29.986	41.8	30.2	11.6	34.8	- 7.2	31.3	25.6	9.2	13.0	5.4	69	92.0	21.2	0.003	5.5	mP : sP : ssP	
23	...	29.767	40.0	28.4	11.6	33.7	- 8.5	31.1	26.4	7.3	12.7	3.2	74	97.0	18.1	0.026	0.0	ssP : sP, sN : sP	
24	New	29.564	39.8	30.8	9.0	34.3	- 8.1	32.7	30.0	4.3	9.0	1.4	84	60.0	30.0	0.069	0.0	sP : ssP, ssN : sP	
25	In Equator	29.474	42.0	31.8	10.2	36.1	- 6.6	34.2	31.4	4.7	8.6	1.7	83	80.0	26.9	0.097	2.0	mP : ssP, ssN : sP	
26	...	29.603	44.0	30.2	13.8	34.5	- 8.5	32.6	29.4	5.1	10.3	3.2	81	92.9	25.1	0.039	6.8	sP : sP, ssN : sP	
27	...	29.774	44.3	32.8	11.5	36.8	- 6.5	33.1	27.8	9.0	13.2	7.2	70	106.0	30.1	0.000	2.2	mP : sP : ssP	
28	...	29.903	46.4	31.8	14.6	37.5	- 6.2	33.8	28.7	8.8	14.7	5.0	71	109.0	23.2	0.000	0.0	sP : ssP	
29	Apogee	29.950	46.5	33.9	12.6	39.7	- 4.4	35.3	29.5	10.2	16.1	5.3	67	98.7	23.8	0.000	0.0	sP	
30	...	30.086	47.0	29.1	17.9	39.3	- 5.2	35.2	29.8	9.5	14.7	6.9	69	54.6	16.9	0.000	0.0	sP : ssP : ssP	
31	...	30.135	52.1	38.3	13.8	44.3	- 0.6	40.9	36.9	7.4	12.4	3.7	75	74.0	30.2	0.000	0.0	sP	
Means	...	29.829	48.8	35.6	13.1	41.8	- 0.1	38.7	34.7	7.1	12.7	3.2	76.3	83.5	29.3	Sum 1.093	3.1	...	
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 29.829, being 0.083 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 65.0 on March 7; the lowest in the month was 27.4 on March 3; and the range was 37.6. The mean of all the highest daily readings in the month was 48.8, being 1.0 lower than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 35.6, being 0.5 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 13.1, being 1.6 less than the average for the 65 years, 1841-1905. The mean for the month was 41.8, being 0.1 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine. Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						CLOUDS AND WEATHER.				
			OSLER'S.			ROBINSON'S.							
			General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.	A.M.			P.M.		
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.						Vertical Movement of the Air.	
Mar. 1	0.0	10.8	W : WSW	WSW	7.0	0.65	493	10, oc. slt-r	10	10, sc, w	10	10, th-r	
2	0.0	10.8	WSW : N	NE : NNE : N	1.5	0.15	298	10, oc. slt-r	10, oc. slt-r	10	10	1	
3	8.3	10.9	N : SSW : SW	SW	1.2	0.09	225	1, ho.-fr	1, ho.-fr	1	0	p.-cl	0, d
4	9.5	11.0	SW	WSW : SW : SSW	1.7	0.18	302	0, ho.-fr	1	2, ci	0	0	
5	3.3	11.0	S : SSW	SSW : SW	3.1	0.30	347	0	0	p.-cl	10, sc, oc.-th-r	p.-cl	p.-cl
6	7.4	11.1	SSW : SW : WSW	SSW : SW	2.7	0.21	327	9	p.-cl	1, th.-cl	1	0	1, hy.-d
7	10.5	11.2	SW	SW : SSW	4.5	0.33	341	1, li.-cl	1	0	0	0	1, d
8	0.0	11.2	WSW : SW	SW : WSW	10.5	1.16	637	p.-cl, w	10, w	10, sc, fq.-r, st. w	10, fq.-r, w	10, w	p.-cl, lu.-ha, w
9	4.3	11.3	WSW : W	W : WNW : WSW	9.0	1.08	619	9, sh.-r, w	1	7, w	8, sc, st.-w	p.-cl, w	p.-cl
10	0.0	11.4	W : SW	SW : SE : SSE	1.2	0.03	198	p.-cl	9	10, s, so.-ha	10, oc.-th-r	10, fq.-r	10, r
11	0.5	11.5	SW	SW : W	18.0	1.67	677	10, r	10, w	10, sc, st.-w	9, fq.-r, g	p.-cl, st.-w	
12	3.9	11.5	W : WSW : NNW	N : NNW : NW	17.0	1.47	605	1, w	0	10, sc, sn, st.-w	7, cu.-s, st.-w	2, st.-w	1, w
13	1.0	11.6	W : WSW : N	N : SW : SSE	4.2	0.25	261	9, sn	10, sn, w	10, oc.-sn	9, cu	10, oc.-sn	10, slt.-sn
14	5.8	11.7	E : ENE : NE	NNE : S : SW	2.8	0.12	235	10	10	p.-cl	1, h, so.-ha	p.-cl	10, oc.-slt.-r
15	0.3	11.7	SSW : SW : WSW	SW : WSW	12.6	1.37	658	10, oc.-slt.-r, w	10	9, sc, w	9, sc, oc.-th.-r, st.-w	10, st.-w	9, st.-w
16	0.0	11.8	WSW : SW	WSW : SW	12.5	1.11	596	p.-cl, st.-w	10, sc	10, sc, oc.-slt.-r, w	10, sc, oc.-m.-r, w	10, sc, w	
17	10.6	11.9	SW : WSW	WSW : SW	5.2	0.83	497	9, w	p.-cl	0, w	0, w	0	0
18	0.0	11.9	WSW	NNW : N	2.3	0.18	277	p.-cl	p.-cl, oc.-th.-r	10, oc.-slt.-r	10	p.-cl	1
19	3.6	12.0	N	N	16.0	1.16	485	9, oc.-slt.-r	9, w	8, slt.-sh, w	8, hy.-shs, hl, sn, st.-w	8, shs.-r, hl, sn, w	
20	1.0	12.1	N	N : NNW : NE	4.5	0.64	391	9	10	9	10, fq.-r	9, fq.-r	9, slt.-r
21	4.3	12.1	N : NNE : NE	NE : ENE	4.4	0.43	380	9	p.-cl	v, oc.-sn	7, cu, n	v, oc.-sn	p.-cl
22	6.5	12.2	NNE : NE	NE	6.3	0.63	419	9	p.-cl, ho.-fr	4, cu, th.-cl, w	v, oc.-sn, w	p.-cl, ho.-fr	
23	2.4	12.3	NNE : NE	NE : NNE	4.5	0.44	374	p.-cl	8	9, slt.-sn, w	9, cu.-s, n, sn	9, oc.-sn	
24	0.2	12.3	NNE : N	N	6.7	0.31	268	10, slt.-sn	10, sn	10, sn, glm	10, slt.-sh, hl	9, hy.-sh, hl, sn, st.-w	10, sn, sl
25	1.0	12.4	N : NNE	N : NE : NNE	2.7	0.29	302	10, oc.-sn	10, oc.-slt.-r	9, n, oc.-th.-r	v, sn, sl	9	
26	3.1	12.5	N : NNE : NE	ENE : NE	6.6	0.59	411	9	p.-cl, slt.-sn	8	7, cu.-s, n, hy.-sh, sn	p.-cl, n	9, w
27	2.2	12.5	NE : ENE	ENE : E : NE	9.0	1.07	559	9, w	10, w	8, cu.-s, w	8, w	9, slt.-sh, w	9
28	5.6	12.6	NE : ENE : E	NE : NNE : N	2.9	0.31	330	9	li.-cl	6, cu, li.-cl	p.-cl, cu.-s	p.-cl	9, ho.-fr
29	6.1	12.7	N : NNE	NNE	3.9	0.47	342	10	p.-cl	7, cu, w	8, cu.-s	p.-cl	0, ho.-fr
30	0.0	12.7	N : Variable	W : NNW : N	0.8	0.03	168	0, ho.-fr	3	10, slt.-f	10, slt.-f	10	10
31	0.0	12.8	NW : WSW	N : NNE : ENE	0.2	0.00	149	10	10	10, slt.-f	10	9	
Means	3.3	11.8	...	...	...	0.57	393						
Number of Column for Reference.	19	20	21	22	23	24	25	26			27		

The mean *Temperature of Evaporation* for the month was 38°.7, being 0°.7 lower than  
 The mean *Temperature of the Dew Point* for the month was 34°.7, being 1°.6 lower than  
 The mean *Degree of Humidity* for the month was 76.3, being 4.2 less than  
 The mean *Elastic Force of Vapour* for the month was 0.1201, being 0.0013 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 25.74, being 0.81 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 551 grains, being 2 grains greater than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 6.8.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.277. The maximum daily amount of *Sunshine* was 10.6 hours on March 17.  
 The highest reading of the *Solar Radiation Thermometer* was 111°.3 on March 17; and the lowest reading of the *Terrestrial Radiation Thermometer* was 16°.9 on March 30.  
 The mean daily distribution of *Ozone* for the 12 hours ending 9<sup>h</sup> was 1.8; for the 6 hours ending 15<sup>h</sup> was 1.2; and for the 6 hours ending 21<sup>h</sup> was 0.1.  
 The *Proportions of Wind* referred to the cardinal points were N. 11, E. 4, S. 6, and W. 10.  
 The *Greatest Pressure of the Wind* in the month was 18.0 lbs. on the square foot on March 11. The mean daily *Horizontal Movement of the Air* for the month was 393 miles; the greatest daily value was 677 miles on March 11; and the least daily value was 149 miles on March 31.  
*Rain* (0.1005 or over) fell on 18 days in the month, amounting to 1.093, as measured by gauge No. 6 partly sunk below the ground; being 0.127 less than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

Table with columns: MONTH and DAY, 1906; Phases of the Moon; BAROMETER; TEMPERATURE (Of the Air, Of Evaporation, Of the Dew Point); Difference between the Air Temperature and Dew Point Temperature; TEMPERATURE (Of Radiation); Rain collected in Gauge No. 6; Daily Amount of Ozone; Electricity.

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 29.907, being 0.159 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 73.2 on April 12; the lowest in the month was 28.1 on April 20; and the range was 45.1. The mean of all the highest daily readings in the month was 57.3, being 0.1 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 35.2, being 3.8 lower than the average for the 65 years, 1841-1905. The mean of the daily ranges was 22.1, being 3.9 greater than the average for the 65 years, 1841-1905. The mean for the month was 45.9, being 1.4 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.					
	hours.	Sun above Horizon.	OSLER'S.		ROBINSON'S.		CLOUDS AND WEATHER.						
			General Direction.		Pressure on the Square Foot.		Movement of the Air.						
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal.	Vertical.	A.M.	P.M.			
Apr. 1	0'0	12'8	Calm : NNE	NNE : NE : E	1'2	0'07	154	10	:	10	:	10	
2	3'7	12'9	E : ENE : NE	ENE : E : NE	3'2	0'15	213	9	:	p-cl	:	9	
3	11'4	13'0	NE : E : SE	E : ESE	6'2	0'40	293	0,	ho.-fr	:	0	:	0
4	12'2	13'0	ESE : SE : SSE	SSE : SE	3'3	0'32	253	0,	ho.-fr	:	0	:	0
5	7'6	13'1	SSE : SE	SSE : SE : E	1'6	0'16	239	li.-cl, ho.-fr,	:	1,	li.-cl	:	4, ci, ci.-s, so-ha
6	11'0	13'2	NE : ENE	E : ESE : SE	2'0	0'16	238	p.-cl, ho.-fr:	:	th.-cl	:	3, ci	
7	9'8	13'2	NE : NNE	SE : ESE : Variable	0'8	0'02	126	0, h, ho.-fr:	:	o, h	:	1	
8	3'9	13'3	WSW : SW : N	NNE : NE	4'5	0'37	319	p.-cl, h	:	10	:	7, li.-cl	
9	10'5	13'4	NE	ENE : NE	3'4	0'38	368	9	:	p.-cl	:	1	
10	11'0	13'4	NE : NNE : ENE	E : ENE	3'0	0'22	276	0, h, ho.-fr:	:	o, h	:	1, ci	
11	10'3	13'5	NE : ENE	E : ESE : Calm	0'9	0'03	161	0, slt.-h	:	0	:	0, li	
12	10'7	13'5	Calm : SE	SSE : S	1'8	0'07	152	th.-cl	:	li.-cl, h	:	5, ci.-cu, cu	
13	9'9	13'6	S : SSE : SW	WSW : SW : N	1'8	0'11	199	p.-cl	:	p.-cl	:	1, cu	
14	8'1	13'7	N : NNE	NNE : NE : ENE	3'8	0'60	381	9, sh.-r	:	9, w	:	p.-cl	
15	11'1	13'8	NE : NNE	E : ESE : SE	1'2	0'02	116	0, ho.-fr	:	0	:	1, ci	
16	11'4	13'8	WSW : SW : W	W : SSW : WSW	0'6	0'02	172	0, ho.-fr	:	1	:	o, h	
17	7'5	13'9	WSW	N : NNE : NE	2'4	0'18	243	0, ho.-fr	:	0	:	o, h	
18	0'0	13'9	NE : NNE	NE : NNE	16'9	1'53	635	10	:	10	:	10, se, w	
19	3'1	14'0	NNE	N : NNE	13'5	1'27	532	10, li.-shs, w:	:	10, li.-shs, st.-w	:	10, se, n, st.-w	
20	2'9	14'1	SW : WSW	WSW : SW	2'0	0'24	315	th.-cl, ho.-fr:	:	p.-cl	:	10	
21	5'9	14'1	WSW	WSW : SW	4'8	0'61	457	p.-cl	:	1, li.-cl	:	p.-cl, cu, w	
22	9'0	14'2	WSW : W : WNW	W : NNW : NW	7'5	0'54	404	10, sh.-r	:	p.-cl	:	4, cu	
23	6'3	14'3	NW : N	NNW : NE : N	2'0	0'18	226	0	:	p.-cl	:	7, cu, th.-cl	
24	2'7	14'3	NW : WSW	NNE : NE : SE	1'4	0'05	195	0, ho.-fr	:	10, slt.-su, sh.-r, glm	:		
25	7'5	14'4	ESE : E : ENE	ENE : E	11'5	0'50	342	10	:	10	:	7, cu, n, w	
26	3'3	14'4	NE : Variable	E : NE	2'0	0'08	170	p.-cl, ho.-fr:	:	10, th.-cl	:	10, th.-cl, so-ha	
27	11'9	14'5	N	W : SW	2'8	0'20	268	p.-cl, ho.-fr:	:	0	:	2 th.-cl	
28	3'5	14'6	SW : NNW : WNW	W : WSW	7'0	0'59	438	10, r	:	10, r	:	9, n, cu	
29	9'5	14'6	WSW	SW : SSW : SSE	4'5	0'18	253	1, ho.-fr	:	1	:	7, cu, n	
30	2'7	14'7	SE : ENE	ENE : NE : N	2'1	0'10	202	p.-cl, ho.-fr:	:	9, r	:	9, hy.-sh, hl	
Means	7'3	13'8	...	...	...	0'31	278						
Number of Column for Reference.	19	20	21	22	23	24	25			26		27	

\* The mean *Temperature of Evaporation* for the month was 41°0, being 2°9 lower than  
 The mean *Temperature of the Dew Point* for the month was 35°6, being 4°5 lower than  
 The mean *Degree of Humidity* for the month was 68°0, being 7·8 less than  
 The mean *Elastic Force of Vapour* for the month was 0<sup>in</sup>·208, being 0<sup>in</sup>·040 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2<sup>grs</sup>·4, being 0<sup>gr</sup>·5 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 548 grains, being 5 grains greater than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 4·5.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·529. The maximum daily amount of *Sunshine* was 12·2 hours on April 4.  
 The highest reading of the *Solar Radiation Thermometer* was 129°7 on April 12; and the lowest reading of the *Terrestrial Radiation Thermometer* was 15°2 on April 15.  
 The mean daily distribution of *Ozone* for the 12 hours ending 9<sup>h</sup> was 0·7; for the 6 hours ending 15<sup>h</sup> was 0·7; and for the 6 hours ending 21<sup>h</sup> was 0·0.  
 The *Proportions of Wind* referred to the cardinal points were N. 8, E. 10, S. 4, and W. 6. Two days were calm.  
 The *Greatest Pressure of the Wind* in the month was 16·9 lbs. on the square foot on April 18. The mean daily *Horizontal Movement of the Air* for the month was 278 miles; the greatest daily value was 635 miles on April 18; and the least daily value was 116 miles on April 15.  
*Rain* (0<sup>in</sup>·005 or over) fell on 9 days in the month, amounting to 0<sup>in</sup>·672, as measured by gauge No. 6 partly sunk below the ground; being 0<sup>in</sup>·894 less than the average fall for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

Table with columns: MONTH and DAY, 1960; Phases of the Moon; BAROMETER; TEMPERATURE (Of the Air, Of Evaporation, Of the Dew Point, Of Radiation); Difference between the Air Temperature and Dew Point Temperature; Degree of Humidity; Rain collected in Gauge No. 6; Daily Amount of Ozone; Electricity.

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 29.693, being 0.101 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 76.2 on May 8; the lowest in the month was 31.6 on May 18; and the range was 44.6. The mean of all the highest daily readings in the month was 62.4, being 1.5 lower than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 44.4, being 0.7 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 18.0, being 2.2 less than the average for the 65 years, 1841-1905. The mean for the month was 52.9, being 0.1 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine.  Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						CLOUDS AND WEATHER.				
			OSLER'S.				ROBIN-SON'S.						
			General Direction.				Pressure on the Square Foot.				Horizontal Movement of the Air.		
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	miles.					A.M.	P.M.
May 1	2.9	14.7	N	Variable: SW: SSW	0.7	0.01	128	th.-cl, ho.-fr: p.-cl	: 7, cu, n, h	10, h	: p.-cl, n	: p.-cl, d	
2	2.8	14.8	SSW	S: SSW	3.8	0.33	292	p.-cl	: li.-cl	: 10, oc.-slt.-r	10, oc.-slt.-r	: 10, fq.-th.-r	
3	7.1	14.9	SSW: SW	SSW	6.1	0.71	399	9, sh.-r	: p.-cl	: p.-cl, cu, n, w	p.-cl, slt.-sh, w	: p.-cl, prh, lu.-ha	
4	4.8	14.9	SSW: SW	SW: WSW	3.5	0.44	361	p.-cl, oc.-th.-r	: p.-cl	: 8, cu, n	8, cu	: p.-cl, slt.-sh, d	
5	8.6	15.0	WSW: SW	SW: SSW	2.8	0.22	278	p.-cl	: p.-cl	: 5, ci, so.-ha	3, ci, th.-cl, so.-ha:	p.-cl, ci	: 10, th.-cl, lu.-ha
6	0.3	15.1	SSW	SW	3.3	0.44	369	10	: 10		10, sc	: 10, sc	
7	1.0	15.1	SW	SW: NE	0.5	0.01	118	10	: 10		9, cu, n	: p.-cl, prh	: 0, hy.-d
8	11.5	15.1	NE: NNE: N	NE: ENE: ESE	0.9	0.03	134	0, h, lu.-ha	: 0, h	: 0	1, cu, th.-cl	: n, l, t	: p.-cl, l, d
9	0.0	15.2	Variable: NNW: N	N: NNE	1.8	0.11	183	p.-cl, m	: p.-cl, sh.-r	: 9, h	10, hy.-sh, t	: 10, oc.-slt.-r	: 10
10	0.0	15.2	NNE: NE	NE: SE	1.1	0.08	183	10	: 10	: 10, n, oc.-slt.-r	10, n	: 10, n	: 9
11	4.2	15.3	SSE: S	SSE: SE: ESE	1.3	0.09	185	9	: p.-cl	: 8, cu, li.-cl	8, cu, li.-cl	: 9, cu, ci, th.-cl, d	
12	5.8	15.4	E: ENE: S	SSE: ESE: E	0.9	0.06	160	9, m	: p.-cl	: 7, cu, th.-cl	p.-cl, cu, n	: 8, ci.-cu	: 4
13	13.7	15.4	ENE: NE	E: ENE: NNE	2.0	0.10	225	0, m, hy.-d	: 1, li.-cl	: 2, ci, ci.-s, so.-ha	1, cu, ci, ci.-s	: 1, li.-cl	: 0
14	10.2	15.5	N: NNE	NNE	5.3	0.63	389	0, h	: 0	: 1, th.-cl	1, ci, ci.-cu, w	: 8, w	: 10, w
15	5.3	15.5	NNE: N	N: NNW	4.2	0.55	367	9	: 10	: p.-cl, ci, cu	1, ci, li.-cl, h	: 10, slt.-sh	: 9
16	2.7	15.5	NW: WNW: W	N	4.1	0.30	305	10	: 9	: v, fq.-shs	v, fq.-shs	: v, fq.-shs	: 10, li.-shs
17	0.3	15.6	N	N: NNE: S	1.6	0.10	186	10	: 9	: 10, n	10, n	: 9	: 9
18	6.5	15.6	Calm: NE: ESE	E: ENE	1.1	0.03	111	1, ho.-fr, m	: 0, m	: 5, cu, n, slt.-h	7, cu, ci.-cu	: ci.-cu, cu, d	: 3, h, hy.-d
19	4.6	15.7	Variable: N	N: NNE	1.2	0.06	150	9	: p.-cl, h	: 8, h	8, cu, h, so.-ha	: 9, n	: 8
20	0.0	15.7	W: NW: NNW	N	4.6	0.59	384	1	: 10	: 10, sc	10, sc, r	: 10, r, w	
21	1.5	15.8	N: NNE	NNE: NE	3.1	0.44	346	10	: 9	: 9, n	10	: 10	: 10, l
22	0.2	15.8	NE	SSE: SE: ESE	1.0	0.02	120	10	: 10		10	: 9	: 10
23	8.1	15.9	ESE: SE: SSE	SSE: ESE: SE	1.9	0.13	201	9, li.-sh	: p.-cl	: 6, cu, ci, ci.-s	8, cu, ci, so.-ha	: 10, oc.-slt.-r	: 10, sh.-r
24	5.3	15.9	SSE: SE: SSW	SSW: SW	4.2	0.42	345	9, sh.-r	: p.-cl	: 9, cu, n, oc.-slt.-r	7, cu.-s, ci, ci.-cu	: 8, cu, n, fq.-th.-r	: p.-cl
25	12.4	16.0	SW: SSW: WSW	SW: SSW	5.7	0.39	368	1	: p.-cl, slt.-sh	: 5, cu, cu.-s, n	p.-cl, cu, n, sh.-r, sq	: 5, cu, n	: p.-cl
26	0.0	16.0	SW: SSW: S	SW: SSW	2.1	0.22	297	6, sh.-r	: 10	: 10, c.-r	10, r	: 10	: 10, r
27	0.3	16.0	SW: WSW	WSW: SW	2.8	0.36	365	10, slt.-r	: 10, oc.-slt.-r	: 10, th.-r	9	: 10, fq.-r	: 10, fq.-r
28	8.7	16.1	SSW: SW: WSW	WSW: SW	2.3	0.31	345	p.-cl	: p.-cl	: 9, cu, n	7, cu	: 6, ci, ci.-cu	: p.-cl
29	13.5	16.1	WSW: SW	WSW: W	3.6	0.45	419	9	: p.-cl	: 7, cu.-s, ci, th.-cl, so.-ha	6, cu, ci, so.-ha	: 3, ci	: p.-cl
30	10.2	16.2	W: WSW	W: NW: SW	4.7	0.40	370	p.-cl	: 1	: 4, cu, cu.-s	7, cu.-s, s, so.-ha	: 9, oc.-slt.-r	: 10
31	0.5	16.2	SW: WSW: W	W: NW: WNW	3.2	0.28	327	10	: 10		8, so.-ha	: 6, cu, ci.-cu, ci.-s	: 1
Means	4.9	15.5	...	...	...	0.27	271						
Number of Column for Reference.	19	20	21	22	23	24	25			26			27

The mean Temperature of Evaporation for the month was 48°·9, being 0°·1 lower than  
 The mean Temperature of the Dew Point for the month was 45°·0, being the same as  
 The mean Degree of Humidity for the month was 75·5, being 1·3 greater than  
 The mean Elastic Force of Vapour for the month was 0<sup>in</sup>·299, being the same as  
 The mean Weight of Vapour in a Cubic Foot of Air for the month was 3<sup>grs</sup>·4, being the same as  
 The mean Weight of a Cubic Foot of Air for the month was 536 grains, being 2 grains less than  
 The mean amount of Cloud for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7·5.  
 The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·318. The maximum daily amount of Sunshine was 13·7 hours on May 13.  
 The highest reading of the Solar Radiation Thermometer was 137°·0 on May 13 and 29; and the lowest reading of the Terrestrial Radiation Thermometer was 22°·6 on May 18.  
 The mean daily distribution of Ozone for the 12 hours ending 9<sup>h</sup> was 2·4; for the 6 hours ending 15<sup>h</sup> was 2·0; and for the 6 hours ending 21<sup>h</sup> was 0·6.  
 The Proportions of Wind referred to the cardinal points were N. 8, E. 4, S. 10, and W. 8. One day was calm.  
 The Greatest Pressure of the Wind in the month was 6·1 lbs. on the square foot on May 3. The mean daily Horizontal Movement of the Air for the month was 271 miles; the greatest daily value was 419 miles on May 29; and the least daily value was 111 miles on May 18.  
 Rain (0<sup>in</sup>·005 or over) fell on 12 days in the month, amounting to 1<sup>in</sup>·565, as measured by gauge No. 6 partly sunk below the ground; being 0<sup>in</sup>·350 less than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.



DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

Table with columns: MONTH and DAY, 1906; Phases of the Moon; BAROMETER; TEMPERATURE (Of the Air, Of Evaporation, Of the Dew Point, Difference between Air Temperature and Dew Point Temperature, TEMPERATURE Of Radiation); Degree of Humidity; Rain collected in Gauge No. 6; Daily Amount of Ozone; Electricity. Rows include dates from June 1 to June 30, with various moon phases like 'In Equator', 'Perigee: Full', 'Apogee', 'New', and 'First Quarter: In Equator'. A 'Means' row and a 'Number of Column for Reference' row are also present.

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 29.950, being 0.135 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 82°0 on June 20; the lowest in the month was 37°6 on June 5; and the range was 44°4. The mean of all the highest daily readings in the month was 69°8, being 0°9 lower than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 47°9, being 2°0 lower than the average for the 65 years, 1841-1905. The mean of the daily ranges was 22°0, being 1°2 greater than the average for the 65 years, 1841-1905. The mean for the month was 58°1, being 1°3 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine. Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						ROBIN-SON'S.		CLOUDS AND WEATHER.	
			OSLER'S.				Pressure on the Square Foot.		Horizontal Movement of the Air.		A.M. P.M.	
			General Direction.		Pressure on the Square Foot.							
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.						
June	hours.	hours.			lbs.	lbs.	miles.					
1	5'4	16'2	WSW : W	W : N : NNW	13'0	0'52	386	p.-cl	p.-cl,slt.-sh: 6, cu,slt.-sh, sq	v, sh.-r, w	v. oc.-slt.-r, l, t, sq. 8	
2	0'5	16'3	NW : W : NNW	NW : NNW	2'6	0'23	295	9	10, sh.-r : 10, slt.-sh	10	p.-cl, oc.-shs: 1, li.-cl	
3	13'3	16'3	WNW : N	N : NNW	1'9	0'15	251	1, d	1 : 1, ci.-s, cu	1, ci.-s, cu	1, ci.-s, cu : p.-cl, d	
4	7'9	16'3	N : NE	NE	1'4	0'11	223	p.-cl	p.-cl : 10, n	8	p.-cl : o, d	
5	9'9	16'4	NE	ENE : E : ESE	1'0	0'05	164	o, h, ho.-fr:	p.-cl : p.-cl	o, slt.-h	o : o, h	
6	12'1	16'4	ESE : E	ESE : E	1'4	0'08	173	9, th.-cl	p.-cl : 1, ci, slt.-h	o	o : 1, ci.-s	
7	12'1	16'4	E : ENE	E : ESE	1'4	0'05	160	o	o : 2, ci.-s, ci.-cu, so.-ha	6, ci, ci.-s, so.-ha:	p.-cl, ci, ci.-s, so.-ha: p.-cl, lu.-ha	
8	13'9	16'4	ESE : ENE : NE	ENE : ESE	0'8	0'03	141	10, th.-cl	o : o	o	p.-cl, cu, ci.-s: 9	
9	11'4	16'4	ESE : E	NNE : ENE : ESE	1'1	0'04	138	9	p.-cl : 7, cu	6, cu	p.-cl, th.-cl : 9	
10	14'5	16'5	ENE : NE	NE : ESE	1'7	0'10	180	9	p.-cl : 3, th.-cl	1, th.-cl	o	
11	7'5	16'5	NNE : NE	NNE : NE : ESE	1'4	0'12	220	10, oc.-m.-r:	10 : 9	p.-cl	o : p.-cl, th.-cl	
12	8'3	16'5	NE	NE : ENE : ESE	1'3	0'06	164	10, h	10, h : 8, li.-cl	p.-cl, slt.-h	1, li.-cl : 2, h, hy.-d	
13	0'0	16'5	ESE : NE : NNE	NE : NNE	2'8	0'28	294	10, slt.-f	10 : 10	10	10, slt.-sh : 10, sc	
14	0'1	16'5	NE : NNE	NNE : N	2'8	0'34	314	10	10 : 10, n, oc.-slt.-r	10	9, ci : 10	
15	0'4	16'5	N : NNW	N : NNE	3'3	0'31	294	10	10, li.-shs : 10, n, oc.-slt.-r	10, n, oc.-slt.-r	10, r : 10, li.-shs	
16	4'8	16'5	NE : NNE	E : ESE : SE	1'4	0'05	173	9	10, fq.-shs: 9, fq.-r	7, ci.-s, cu, n, so.-ha:	9, hy.-shs, l, t : 10	
17	10'1	16'5	ENE : SE	S : SSW	1'2	0'06	161	10	10, sh.-r : 8, cu	4, cu	o : o	
18	8'5	16'6	Variable : Calm	SW : SE : SSE	0'1	0'00	92	o, d	8, ci, ci.-s, so.-ha	8, cu, li.-cl	7, cu, n, li.-cl: 2, li.-cl, h, hy.-d	
19	6'3	16'6	SW : WSW	SE : ENE	0'2	0'00	102	o, slt.-h	o, h : 9, h, m	9, h	p.-cl, h : p.-cl, h	
20	14'5	16'6	SW : WSW	SW : WSW : W	1'6	0'06	201	li.-cl	li.-cl : 3, ci, ci.-s	2, ci, ci.-s	2, ci, th.-cl : th.-cl	
21	3'1	16'6	WSW : W	W : WNW : NNW	0'9	0'04	188	9	9, th.-cl	p.-cl, cu.-s, h:	p.-cl : 8, slt.-sh	
22	9'2	16'6	W : NW : NNW	NW : NNW : N	0'9	0'06	185	9	p.-cl, slt.-sh: 6, cu, th.-cl, h	6, cu, th.-cl	p.-cl, cu : 1, s, th.-cl	
23	9'3	16'6	Calm : ESE	ESE : E	1'5	0'10	172	o, h	1 : 1, cu, li.-cl, h	p.-cl, cu, n	p.-cl, so.-ha: 10, m, l	
24	4'2	16'6	E : Variable : WSW	W : WSW	4'3	0'29	312	10, t.-sm	10, hy.-sh: 10	p.-cl, cu, cu.-s	p.-cl, ci, ci.-s, cu: p.-cl	
25	4'4	16'6	WSW : SW	SW	3'1	0'43	387	p.-cl	9 : 9	p.-cl	p.-cl, cu, cu.-s, n: p.-cl, d	
26	14'9	16'6	SW	SW	2'8	0'33	356	p.-cl	p.-cl : 3, cu, th.-cl	2, th.-cl	1 : o, d	
27	12'4	16'5	SW : SSW : WSW	WSW : SW	2'9	0'32	335	1, h	1 : p.-cl, ci.-s, cu	6, cu, cu.-s	5, ci : p.-cl, ci.-s, ci.-cu	
28	7'6	16'5	SW	SW : WSW : NE	2'4	0'18	298	p.-cl	10 : 9, slt.-sh, cu, n	8, cu, ci.-s, cu.-s:	p.-cl : 10	
29	3'8	16'5	NNE : N	N : NNW	10'7	1'00	438	10, hy.-r	10, hy.-r, g: 10, c.-r, g	9, fq.-r, w	1, h : li.-cl	
30	10'8	16'5	SW : NW	W : WNW : WSW	2'2	0'10	215	p.-cl	p.-cl : 7, cu, th.-cl	6, cu, th.-cl	3, cu, cu.-s, h: p.-cl, hy.-d	
Means	8'0	16'5	...	...	...	0'18	234					
Number of Column for Reference.	19	20	21	22	23	24	25	26	27			

The mean *Temperature of Evaporation* for the month was 53°·4, being 1°·5 lower than  
 The mean *Temperature of the Dew Point* for the month was 49°·1, being 1°·8 lower than  
 The mean *Degree of Humidity* for the month was 72·6, being 1°0 less than  
 The mean *Elastic Force of Vapour* for the month was 0<sup>in</sup>·349, being 0<sup>in</sup>·024 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3<sup>grs</sup>·9, being 0<sup>gr</sup>·3 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 535 grains, being 4 grains greater than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 5·7.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·488. The maximum daily amount of *Sunshine* was 14·9 hours on June 26.  
 The highest reading of the *Solar Radiation Thermometer* was 146°·3 on June 18; and the lowest reading of the *Terrestrial Radiation Thermometer* was 28°·0 on June 6.  
 The mean daily distribution of *Ozone* for the 12 hours ending 9<sup>h</sup> was 1·1; for the 6 hours ending 15<sup>h</sup> was 2·0; and for the 6 hours ending 21<sup>h</sup> was 0·9.  
 The *Proportions of Wind* referred to the cardinal points were N. 8, E. 8, S. 4, and W. 8. Two days were calm.  
 The *Greatest Pressure of the Wind* in the month was 13'0 lbs. on the square foot on June 1. The mean daily *Horizontal Movement of the Air* for the month was 234 miles; the greatest daily value was 438 miles on June 29; and the least daily value was 92 miles on June 18.  
*Rain* (0<sup>in</sup>·005 or over) fell on 7 days in the month, amounting to 2<sup>in</sup>·801, as measured by gauge No. 6 partly sunk below the ground; being 0<sup>in</sup>·763 greater than the average fall for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

Table with columns: MONTH and DAY, 1906; Phases of the Moon; BAROMETER; TEMPERATURE (Of the Air, Of Evaporation, Of the Dew Point); Difference between the Air Temperature and Dew Point Temperature; TEMPERATURE (Of Radiation); Rain collected in Gauge No. 6; Daily Amount of Ozone; Electricity. Rows include dates from July 1 to July 31, with various lunar phases and meteorological data.

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 29.866, being 0.067 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 86.2 on July 18; the lowest in the month was 45.1 on July 1; and the range was 41.1. The mean of all the highest daily readings in the month was 75.4, being 1.2 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 53.3, being the same as the average for the 65 years, 1841-1905. The mean of the daily ranges was 22.0, being 1.1 greater than the average for the 65 years, 1841-1905. The mean for the month was 63.4, being 0.7 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine. hours.		Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.			
					OSLER'S.				ROBIN-SON'S.						
					General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.			A.M.		P.M.	
					A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Miles.						
July	1	7.0	16.5	WSW : N	W : E : ESE	0.6	0.01	113	9	2, li-cl	6, cu, h	8, cu, n	th-cl, h, lu-ha		
	2	11.1	16.5	ESE	ESE : E	1.1	0.07	151	p-cl, m	p-cl, m, h	5, cu, h	4, cu, slt-h	2, cu, slt-h : p-cl, ci-cu, hy-d		
	3	9.3	16.5	NE : ENE	E : ENE	1.7	0.14	228	9	p-cl	8, cu-s, so-ha	6, cu, ci-cu	3, cu : o, slt-h		
	4	12.7	16.4	NNE : NE	NE : ESE	1.3	0.07	176	o, slt-h, hy-d	o	1, ci-s, so-ha	5, cu	p-cl, cu, ci-s : 1, th-cl, slt-h, d		
	5	14.3	16.4	NNE : N : NE	NE : SE	1.1	0.03	160	o, h, hy-d	o	2, cu	3, cu	1, cu : 1, li-cl, d		
	6	8.5	16.4	SE : Calm : SW	W : WSW : SW	2.0	0.09	179	p-cl, d	p-cl	6, cu, h	2, cu, ci, slt-h	p-cl : 9		
	7	12.5	16.4	SW : WSW	WSW : W	1.4	0.10	233	p-cl	p-cl	3, cu	4, cu	2, cu : o, d		
	8	6.1	16.4	WSW : SW : W	W : WSW : SW	1.2	0.05	213	o, d	p-cl	9, cu, n	9	p-cl, cu : 1, li-cl		
	9	5.3	16.3	WSW : NNW : N	NE : ENE	0.5	0.02	161	p-cl, d	1, li-cl, h	p-cl, th-cl, ci-s	9	10 : 10		
	10	3.8	16.3	NE : N	N	2.5	0.17	224	9	9	7, li-cl, so-ha	10, n	10, slt-sh : 1, li-cl, d		
	11	5.6	16.3	N	N : NE : NNW	2.7	0.20	250	p-cl	p-cl	6, cu, h	5, cu	p-cl, cu-s, n : 9, n		
	12	8.2	16.2	N : NNE	Variable	3.0	0.09	177	9	p-cl, cu	7, cu, n	8, cu, n	5, cu, n : 9		
	13	8.0	16.2	WSW	WSW : SW	3.0	0.23	269	10	2, li-cl	3, ci, cu, so-ha	p-cl, cu, n, so-ha	9, n, slt-sh : 10, n		
	14	10.9	16.2	SW : NW : W	WNW : W : WSW	1.8	0.17	269	9	10, slt-sh	5, ci, cu	3, ci, cu	4, ci : 2, th-cl		
	15	3.2	16.2	SW : WSW	WSW : W : NW	4.5	0.58	403	9	10	9, n, w	p-cl, n, r	p-cl, ci : 2, th-cl		
	16	9.9	16.1	WSW	WSW : W	7.0	0.74	462	1	2, li-cl	7, cu, w	p-cl, cu, n, w	p-cl, cu, th-cl, w : 1, s		
	17	12.0	16.1	WSW : W	WSW : SSW : SW	2.5	0.25	304	9	p-cl	7, cu	4, cu	1, cu, th-cl : p-cl, cu, n, d		
	18	10.7	16.0	SW : WSW	WSW : SW	1.4	0.07	219	p-cl	9	1, ci, th-cl	4, cu	p-cl, cu, ci : 1, ci		
	19	1.8	16.0	WSW : SW	W : WSW	2.6	0.32	369	p-cl	10, fq-shs	10, oc-slt-r	10, slt-sh	p-cl, cu, ci-s, so-ha : 9		
	20	5.9	16.0	WSW	WSW : WNW : NW	3.1	0.22	322	9	10	9, cu, n	8, cu, n	p-cl, cu, n : p-cl		
	21	0.3	15.9	WSW : SW	SW	0.8	0.03	174	5	10	9	9	10 : 10		
	22	7.5	15.9	SW : WSW : W	W : WSW	2.6	0.21	323	10, th-r	9	p-cl, cu, cu-s, n	9, cu, cu-s, n	p-cl : 1, d		
	23	9.6	15.8	WSW : SW	SW	2.0	0.11	243	p-cl	p-cl	9, cu, ci-cu, n	5, cu	p-cl : 8, cu-s, n		
	24	10.2	15.8	W : WNW : N	N	1.4	0.12	238	p-cl	9	4, cu, th-cl	6, cu	7, cu : 1, ci-s, s		
	25	12.3	15.7	N : NE : ENE	NE : ESE : E	1.5	0.01	193	o, hy-d	o	3, cu, ci-s	6, cu, ci-s, so-ha	4, cu, ci-s : 2, ci-s, hy-d		
	26	13.8	15.7	E : ESE	E	2.3	0.20	250	o, slt-h, m, hy-d	o	1, th-cl	1, ci	p-cl, ci, cu-s : 7, cu-s		
	27	4.0	15.6	Calm : Variable : NE	NNE : W : WSW	1.7	0.05	145	p-cl, h	p-cl	p-cl, m, t-sm	p-cl, n, h, t	p-cl, oc-r : 9, slt-sh		
	28	12.1	15.6	WSW	WSW : SW : SSW	1.6	0.11	259	p-cl	p-cl	1, th-cl	1, cu	2, th-cl : p-cl, ci-cu		
	29	4.8	15.5	SSW : Variable : WSW	Variable : Calm : ESE	1.6	0.02	152	9	p-cl	8, th-cl	9, cu, n, slt-r, so-ha	10 : 9, oc-r		
	30	13.2	15.5	E	E : ESE	2.7	0.21	228	9, sh-r	o	o	1, ci	2, ci-s, li-cl : p-cl, ci-cu		
	31	8.0	15.4	Calm : W	W : WSW	2.5	0.14	219	9, oc-th-r	9, oc-th-r	7, cu, ci-cu	7, cu, cu-s, n	5 : 1, li-cl		
Means		8.5	16.1	...	...	...	0.16	236							
Number of Column for Reference.		19	20	21	22	23	24	25		26			27		

The mean *Temperature of Evaporation* for the month was 57°·7, being 0°·2 lower than  
 The mean *Temperature of the Dew Point* for the month was 53°·0, being 0°·8 lower than  
 The mean *Degree of Humidity* for the month was 68·9, being 3·9 less than  
 The mean *Elastic Force of Vapour* for the month was 0·12403, being 0·0012 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 487·5, being 0·8 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 528 grains, being 1 grain greater than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 1, and an overcast sky by 10) was 5·4.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·528. The maximum daily amount of *Sunshine* was 14·3 hours on July 5.  
 The highest reading of the *Solar Radiation Thermometer* was 147°·0 on July 31; and the lowest reading of the *Terrestrial Radiation Thermometer* was 33°·8 on July 21.  
 The mean daily distribution of *Ozone* for the 12 hours ending 9<sup>h</sup> was 0·6; for the 6 hours ending 15<sup>h</sup> was 0·9; and for the 6 hours ending 21<sup>h</sup> was 0·4.  
 The *Proportions of Wind* referred to the cardinal points were N. 6, E. 6, S. 5, and W. 13. One day was calm.  
 The *Greatest Pressure of the Wind* in the month was 7·0 lbs. on the square foot on July 16. The mean daily *Horizontal Movement of the Air* for the month was 236 miles; the greatest daily value was 462 miles on July 16; and the least daily value was 113 miles on July 1.  
*Rain* (0·1 or over) fell on 7 days in the month, amounting to 0·144, as measured by gauge No. 6 partly sunk below the ground; being 1·985 less than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

Table with columns: MONTH and DAY, 1906; Phases of the Moon; BAROMETER; TEMPERATURE (Of the Air, Of Evaporation, Of the Dew Point, Difference between Air Temperature and Dew Point Temperature, TEMPERATURE Of Radiation); Degree of Humidity; Rain collected; Daily Amount of Ozone; Electricity.

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 29.832, being 0.049 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 94.3 on August 31; the lowest in the month was 44.1 on August 29; and the range was 50.2. The mean of all the highest daily readings in the month was 77.0, being 4.3 higher than the average for the 65 years, 1841-1905. The mean of all the lowest readings in the month was 54.4, being 1.4 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 22.6, being 2.9 greater than the average for the 65 years, 1841-1905. The mean for the month was 64.7, being 3.1 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine. Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.			
			OSLER'S.				ROBINSON'S.						
			General Direction.		Pressure on the Square Foot.		Greatest.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.	A.M.		P.M.	
			A.M.	P.M.	lbs.	lbs.				miles.			
Aug. 1	12.4	15.4	WSW	SW : SSW	2.0	0.13	206	p-cl, li-cl :	p-cl :	6, cu, th-cl	3, th-cl :	1, ci-cu, ci-s :	p-cl
2	11.6	15.3	S : SSW	SSW : ESE : WSW	14.5	0.16	226	li-cl :	p-cl :	8, th-cl, so-ha	p-cl, cu, ci, ci-s :	9, l :	9, l, t-sm, hy-sqs :
3	13.0	15.3	WSW : SW	WSW : SW	5.7	0.65	424	9 :	p-cl :	5, cu, w	3, ci, cu, w :	2, cu :	1, th-cl
4	13.5	15.2	SW : WSW	WSW : W	5.7	0.66	446	o :	p-cl, li-cl :	5, cu, w	p-cl, cu, n, w :	3, cu-s, w :	2, s, th-cl
5	7.5	15.2	WSW	SW : WSW	2.0	0.14	264	th-cl :	p-cl, th-cl :	8, cu, n, oc-slt-r	p-cl, slt-sh :	p-cl :	1, ci-cu, th-cl
6	11.1	15.1	WSW : Variable	NNE : ESE	0.4	0.00	105	p-cl :	p-cl :	1, th-cl, h	1, h :	p-cl :	9, th-cl
7	9.2	15.1	ESE : WSW	WSW : SSW	1.2	0.02	163	p-cl, th-cl :	p-cl :	8, cu	7, cu :	3, ci :	p-cl, ci-s
8	12.5	15.0	SSW	SSW : SW : W	1.3	0.06	211	p-cl, th-cl :	li-cl :	1, ci-cu, ci-s	p-cl, sh-r :	5, ci-s :	p-cl, m, l
9	8.2	15.0	W : WNW	W : WNW : WSW	2.0	0.22	332	9 :	p-cl, th-cl, h :	8, cu, ci	9, cu, cu-s, n :	8 :	8
10	3.8	14.9	WSW : WNW	SSW : SW : WSW	2.7	0.14	263	9 :	9 :	9, cu, n	9, cu, cu-s, n :	9, slt-sh :	p-cl, th-cl
11	1.9	14.9	WSW : W	W : WSW	1.5	0.13	275	p-cl :	p-cl :	9, cu, n	10 :	p-cl	
12	0.0	14.8	SW : SSW	SW : SSW	1.4	0.07	225	p-cl :	9 :	10	10 :	10 :	p-cl
13	3.1	14.7	SSE : S : SSW	SSW : SW	3.1	0.23	272	1, lu-ha :	9, so-ha :	8, ci, ci-cu	9, sh-r :	p-cl, fq-hy-shs, l, t :	10, sc
14	6.0	14.7	SW : SSW	SSW : SW	2.0	0.19	260	10 :	10 :	9, so-ha	9, so-ha :	p-cl, cu, cu-s :	2, ci-s, li-cl
15	9.1	14.6	SW	SW : SSW	3.9	0.45	374	o :	p-cl :	9, shs-r	8, cu, w :	p-cl, cu, sh-r :	p-cl, oc-slt-r
16	11.5	14.6	SW : WSW	SW : WSW	4.0	0.48	400	p-cl :	li-cl :	p-cl, cu, oc-shs	7, cu, n, oc-slt-r :	5, slt-h :	p-cl
17	3.9	14.5	WSW : W	W : WSW : NW	2.7	0.27	320	p-cl, slt-sh :	9 :	8, sh-r, l, t	9, n, r :	9, n, oc-shs, so-ha, t :	10, slt-r
18	2.1	14.4	W : WNW : N	NW : NNW	2.4	0.27	308	10 :	10 :	9, n, oc-slt-r	10, n, cu-s :	p-cl :	p-cl
19	8.5	14.4	NNW : W : NW	NW : WNW : WSW	1.3	0.08	207	10 :	10 :	8, cu, s, h	p-cl, cu-s, s :	ci, ci-cu, ci-s :	o, slt-h
20	2.9	14.3	SW : WSW	SW : WSW	3.0	0.35	367	o :	p-cl :	9	10 :	9 :	p-cl, cu-s, d
21	6.7	14.3	WSW : W	WSW : SW	2.8	0.19	293	10 :	10 :	8, cu-s	8, cu, n :	p-cl, cu-s :	1, s, d
22	13.5	14.2	SW	SW : SSW : WSW	0.7	0.01	134	o, d :	o :	1, li-cl	1, cu, li-cl :	1, li-cl :	o, d
23	10.2	14.1	SW : WSW	SW : ESE : E	2.2	0.09	217	o, d :	o :	1, li-cl	p-cl :	9, th-cl :	10
24	4.9	14.1	ESE : SSW : SW	WSW : W : SW	2.4	0.16	246	10 :	10 :	10, r	p-cl, r :	p-cl, cu, n :	9, th-cl
25	3.2	14.0	SW : SSW : WSW	W : WNW : WSW	20.5	1.30	577	10, slt-r :	10, n, st-w :	10, g	10, cu-s, n, s, so-ha, st-w :	p-cl, ci-s, cu-s, w :	o
26	2.6	13.9	WSW : SW	WSW : W	3.1	0.27	320	p-cl :	10 :	10	p-cl :	p-cl	
27	10.8	13.9	WSW : W : NW	N : NE : E	1.9	0.18	270	9 :	p-cl :	4, cu	1, th-cl, h :	th-cl :	p-cl, th-cl, h
28	11.1	13.8	ENE : E	ESE	0.7	0.02	114	p-cl :	li-cl :	3, ci, ci-s, slt-h	4, ci, th-cl, so-ha :	3, ci, ci-s :	1, ci, ci-cu
29	11.9	13.8	ESE	E : ESE	1.2	0.03	129	o, d, slt-m :	o, m, slt-h :	o	o :	o :	o, slt-h, hy-d
30	9.3	13.7	ESE : NE	SSE : S : SE	0.2	0.00	114	o, h, m :	o, m :	1, ci	o :	o :	
31	12.7	13.6	ENE : SSW	S : SE : E	2.8	0.13	188	o, slt-m :	o :	o	o :	o :	o, d
Means	8.0	14.5	...	...	...	0.23	266						
Number of Column for Reference.	19	20	21	22	23	24	25			26		27	

The mean *Temperature of Evaporation* for the month was 58° 9, being 1° 4 higher than the mean *Temperature of the Dew Point* for the month was 54° 1, being 0° 1 higher than the mean *Degree of Humidity* for the month was 69.2, being 7.1 less than the mean *Elastic Force of Vapour* for the month was 0.11419, being 0.0001 greater than the mean *Weight of Vapour in a Cubic Foot of Air* for the month was 48.6, being the same as the mean *Weight of a Cubic Foot of Air* for the month was 526 grains, being 2 grains less than the mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 5.6. The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.552. The maximum daily amount of *Sunshine* was 13.5 hours on August 4 and 22. The highest reading of the *Solar Radiation Thermometer* was 153° 9 on August 1; and the lowest reading of the *Terrestrial Radiation Thermometer* was 32° 0 on August 29. The mean daily distribution of *Ozone* for the 12 hours ending 9<sup>h</sup> was 1.6; for the 6 hours ending 15<sup>h</sup> was 0.9; and for the 6 hours ending 21<sup>h</sup> was 0.6. The *Proportions of Wind* referred to the cardinal points were N. 2, E. 4, S. 10, and W. 14. One day was calm. The *Greatest Pressure of the Wind* in the month was 14.5 lbs. on the square foot on August 2. The mean daily *Horizontal Movement of the Air* for the month was 266 miles; the greatest daily value was 577 miles on August 25; and the least daily value was 105 miles on August 6. *Rain* (0.1005 or over) fell on 9 days in the month, amounting to 1.388, as measured by gauge No. 6 partly sunk below the ground; being 0.956 less than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

Table with columns: MONTH and DAY, 1906; Phases of the Moon; BAROMETER; TEMPERATURE (Of the Air, Of Evaporation, Of the Dew Point, Of Radiation); Difference between the Air Temperature and Dew Point Temperature; Degree of Humidity; Rain collected in Gauge No. 6; Daily Amount of Ozone; Electricity.

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 30.024, being 0.0213 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 93.5 on September 2; the lowest in the month was 37.1 on September 27; and the range was 56.4. The mean of all the highest daily readings in the month was 69.8, being 2.5 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 49.3, being 0.2 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 20.5, being 2.3 greater than the average for the 65 years, 1841-1905. The mean for the month was 59.2, being 1.9 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.											
	hours.	Sun above Horizon.	OSLER'S.		ROBINSON'S.			A.M.	P.M.										
			General Direction.		Pressure on the Square Foot.														
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.												
Sept. 1	12.5	13.6	E : NE : SE	E : ESE : SE	1.8	0.06	138	o,slt.-m,d :	o,slt.-h :	o	:	o	:	o,hy.-d					
2	12.6	13.5	Variable	S : Calm	1.7	0.07	153	o,hy.-d :	o	:	o	:	o						
3	11.9	13.4	E : Calm : SSW	SW : WSW	1.7	0.07	160	o,hy.-d :	o	:	1,ci	:	1,ci	:	o,h,d				
4	4.9	13.4	N : NNW	N : NE : E	1.1	0.02	141	th.-cl,h,d :	10,th.-cl :	7,ci.-cu,h	:	8,ci.-cu,th.-cl, h,so.-ha	:	9	:	10,oc.-r			
5	5.0	13.3	NNE : N : NE	SW : WSW	2.0	0.15	212	10,r	:	10	:	2,ci	:	4,th.-cl	:	8			
6	2.3	13.2	SW : WSW	SW : W : WSW	2.6	0.52	400	9	:	9	:	10	:	8	:	p.-cl	:	p.-cl	
7	7.0	13.2	W : WSW	WSW : SW	1.5	0.13	278	9	:	10	:	8,ci.-s,th.-cl	:	1,th.-cl	:	o	:	li.-cl,hy.-d	
8	10.0	13.1	WSW : W	W : NW : NNW	1.0	0.03	184	p.-cl,d	:	o	:	1,ci.-cu,th.-cl	:	3,ci.-cu,th.-cl	:	p.-cl,th.-cl	:	9	
9	8.8	13.1	NNE : N	N	1.4	0.18	230	9	:	9	:	3,ci.-s,cu	:	cu,th.-cl	:	cu,th.-cl	:	5,th.-cl	
10	11.2	13.0	N	NNE : NE	2.1	0.19	228	th.-cl	:	1	:	3,ci.-cu,ci.-s	:	4,ci,cu,ci.-s	:	o,d	:		
11	10.6	12.9	NE : Calm : SE	S : SSE	0.4	0.00	103	o,h,ho.-fr :	o,h	:	1,ci.-s,th.-cl	:	1,th.-cl	:	1	:	p.-cl	:	
12	3.5	12.9	SSE : SSW	SSW : SW : S	1.0	0.04	175	p.-cl	:	p.-cl	:	9,cu,s	:	9,ci.-cu,th.-cl	:	10,sh.-r	:	10	
13	0.9	12.8	SSW : S	SSW : S	2.6	0.25	260	9	:	9	:		:	9,so.-ha	:	10,c.-r	:	10,r	
14	6.2	12.7	WNW : WSW	SW	3.3	0.35	331	9	:	9,cu	:	8,ci.-n,oc.-slt.-r, so.-ha	:	p.-cl	:	3	:		
15	7.6	12.7	SSW : WSW : W	WSW : SW : SSW	4.7	0.35	326	10,fq.-r	:	9,r	:	p.-cl,ci.-s,cu	:	4,cu,cu.-s	:	p.-cl,shs.-r,sq	:	p.-cl	
16	3.6	12.6	WSW : W : NW	NW : WNW	5.0	0.57	386	o	:	p.-cl,l	:	9,cu,n,w	:	10,fq.-shs,w	:	p.-cl,sh.-r	:		
17	3.3	12.5	WNW : NNW : N	N : NNE	12.8	0.92	452	10	:	10,oc.-slt.-r, st.-w	:	p.-cl,li.-shs,at.-w	:	9,cu,n	:	9,cu,oc.-r,w	:	10,sh.-r	
18	8.0	12.5	N : ENE : E	ENE : NE : NNE	14.0	0.91	426	10,sh.-r,w	:	p.-cl,sh.-r, st.-w	:	5,cu,n,w	:	3,ci.-cu,th.-cl	:	p.-cl,cu	:	10,m.-r	
19	0.0	12.4	N : NNE	N : NNE	2.7	0.30	281	9,oc.-slt.-r	:	10,oc.-slt.-r	:	9	:	10,fq.-th.-r	:	p.-cl	:	9	
20	0.3	12.4	N	NE : N	2.7	0.21	245	10	:	10	:	9	:	10,oc.-slt.-r	:	p.-cl	:	1,hy.-d	
21	2.1	12.3	N	N : NE	1.8	0.20	234	p.-cl	:	10	:	9,cu,n,th.-cl	:	8,cu,n	:	8,oc.-th.-r	:	th.-cl	
22	5.3	12.2	NE : NNE	N : NNE	2.5	0.15	223	9	:	9	:	6,cu,th.-cl	:	p.-cl,cu,n,th.-cl	:	9,cu,n,th.-cl	:	p.-ci,li.-cl,d	
23	3.0	12.2	N : NNE	NNE : NE	2.0	0.22	272	9	:	p.-cl,cu	:	p.-cl	:	10	:	10	:		
24	3.4	12.1	NE : E	E : NE	4.0	0.29	281	p.-cl	:	10	:	9,cu,n,oc.-th.-r	:	6,ci.-cu,ci,cu	:	p.-cl,ci,cu	:	p.-cl,d	
25	11.0	12.0	ENE : E	ENE : E	2.8	0.15	212	p.-cl	:	1,d	:	1,li.-cl,h	:	1,ci.-s,th.-cl	:	1,li.-cl	:		
26	5.4	12.0	ENE : Calm : NE	NE : E : SE	0.2	0.00	101	1,m	:	p.-cl,m,hy.-d	:	p.-cl,cu	:	p.-cl,ci.-cu	:	p.-cl,cu	:	p.-cl	
27	7.3	11.9	Calm : ESE	SE : ESE : Calm	0.4	0.00	92	1,m	:	th.-cl,m	:	4,cu,th.-cl	:	4,th.-cl,slt.-h	:	o,hy.-d,m,slt.-f	:		
28	6.5	11.8	Calm	E : SE	0.1	0.00	81	o,tk.-f,hy.-d :	f	:	5,ci,th.-cl,slt.-f	:	1,th.-cl,h	:	2,ci,lu.-ha	:	1,lu.-ha,1m.-co,f, hy.-d		
29	4.7	11.8	Calm : ENE	ESE : E	0.8	0.02	117	o,f,hy.-d :	o,f	:	1,ci,ci.-s	:	5,ci,so.-ha	:	th.-cl,h,lu.-ha	:	p.-cl,h,lu.-ha,hy.-d		
30	6.8	11.7	E : Calm : ESE	ESE	1.3	0.07	153	p.-cl,f,m,hy.-d :	3,ci,th.-cl	:		:	4,ci,ci.-cu,so.-ha	:	p.-cl,ci,th.-cl,hy.-d	:			
Means	6.2	12.6	...	...	...	0.21	229												
Number of Column for Reference.	19	20	21	22	23	24	25												

The mean Temperature of Evaporation for the month was 54°3, being 0°2 higher than  
 The mean Temperature of the Dew Point for the month was 50°1, being 1°1 lower than  
 The mean Degree of Humidity for the month was 73°2, being 7°0 less than  
 The mean Elastic Force of Vapour for the month was 0.12362, being 0.015 less than  
 The mean Weight of Vapour in a Cubic Foot of Air for the month was 4.8750, being 0.872 less than  
 The mean Weight of a Cubic Foot of Air for the month was 535 grains, being 2 grains greater than  
 The mean amount of Cloud for the month (a clear sky being represented by 0, and an overcast sky by 10) was 5.1.  
 The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.490. The maximum daily amount of Sunshine was 12.6 hours on September 2.  
 The highest reading of the Solar Radiation Thermometer was 151°8 on September 3; and the lowest reading of the Terrestrial Radiation Thermometer was 27°9 on September 28.  
 The mean daily distribution of Ozone for the 12 hours ending 9<sup>h</sup> was 0.2; for the 6 hours ending 15<sup>h</sup> was 1.2; and for the 6 hours ending 21<sup>h</sup> was 0.6.  
 The Proportions of Wind referred to the cardinal points were N. 10, E. 7, S. 5, and W. 5. Three days were calm.  
 The Greatest Pressure of the Wind in the month was 14.0 lbs. on the square foot on September 18. The mean daily Horizontal Movement of the Air for the month was 229 miles; the greatest daily value was 452 miles on September 17; and the least daily value was 81 miles on September 28.  
 Rain (0.1005 or over) fell on 11 days in the month, amounting to 1.1971, as measured by gauge No. 6 partly sunk below the ground; being 0.1177 less than the average fall for the 65 years, 1841-1905.

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



DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

Table with columns: MONTH and DAY, 1906; Phases of the Moon; BAROMETER; TEMPERATURE (Of the Air, Of Evaporation, Of the Dew Point); Difference between the Air Temperature and Dew Point Temperature; TEMPERATURE (Of Radiation); Rain collected in Gauge; Electricity. Rows include dates from Oct 1 to Oct 31, with various meteorological data points.

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 29.681, being 0.0040 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 71.8 on October 1; the lowest in the month was 32.1 on October 26; and the range was 39.7. The mean of all the highest daily readings in the month was 61.8, being 4.3 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 46.9, being 3.7 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 14.9, being 0.6 greater than the average for the 65 years, 1841-1905. The mean for the month was 54.3, being 4.3 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.		
	hours.	Sun above Horizon.	OSLER'S.		ROBINSON'S.		A.M.	P.M.		
			General Direction.		Pressure on the Square Foot.					
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.			Horizontal Movement of the Air.	
Oct. 1	7.2	11.7	ESE : SSE	SSW : S	1.8	0.15	223	p-cl,slt-m: 9	p-cl, so-ha	1, cu, li-cl : 5, li-cl, d : 10, r
2	0.2	11.6	S : SSW : SW	S	4.4	0.61	362	10, r	: 10, sc, fq-r	9, li-sc, n : 10, sc, r, w : 10, slt-r
3	2.4	11.5	NW : NNW	NW : Variable : SE	5.5	0.35	265	9, w	: 9, w : p-cl, cu, th-cl	9, cu, n, h : 9 : 9
4	4.7	11.4	SE : ESE : SSE	S : SSE	2.0	0.22	222	10	: p-cl : 8, cu, th-cl	9, sc, cu, n, oc-slt-r : 8, cu, n, slt-sh
5	4.4	11.4	S : SSW	SW : SSW : WSW	4.8	0.59	397	p-cl	: p-cl, slt-sh, w : 5, cu, n, w	p-cl, n, w : 9, oc-slt-r : 9
6	5.3	11.3	SW	SW : SSW : S	1.5	0.19	281	p-cl	: p-cl : p-cl, ci, cu	p-cl : 10 : 7
7	2.7	11.2	S : SSW	SSW : SSE : S	2.6	0.23	268	1	: p-cl : 8, cu, n	9 : 9, slt-sh : 9, d
8	7.7	11.2	S : SSW : SW	S : SSE : SE	5.0	0.31	273	10, r	: p-cl : 2, cu, th-cl	5, cu, so-ha : p-cl, sh-r, sq : 9, sh-r
9	2.2	11.1	S : SE	SSE : SE : ESE	2.0	0.15	213	p-cl, sh-r	: 9, li-shs : 9, sc, fq-th-r	9, cu, n : p-cl, th-cl : p-cl, d, l
10	3.5	11.0	ESE : SE : E	E : ESE	1.5	0.04	148	10, r	: 9 : 9, cu, so-ha, prh	9, th-cl, h, so-ha : th-cl, ci-cu : slt-h, hy-d, l
11	7.4	11.0	E : ESE : SSE	SE : SSE : SW	1.4	0.02	144	h, hy-d	: 1 : 2, cu, ci-s	3, ci-cu, ci-s : th-cl : p-cl, hy-d
12	9.0	10.9	SW	WSW : SW	4.2	0.40	341	1	: p-cl : p-cl, cu, n	6, cu, n, w : 8, n : 10, oc-slt-r
13	3.2	10.8	SW : NNW	NNW : N	3.7	0.37	295	9, oc-shs	: 10, shs-r : 10, sc	p-cl, cu, n : 3, th-cl : p-cl
14	8.7	10.8	NNW : N	N : Variable : SW	3.5	0.48	310	p-cl	: p-cl : 1, th-cl	1, th-cl : 1, th-cl, slt-f, m
15	1.3	10.7	SSW : SW	SSW : SW	2.0	0.17	287	m, hy-d	: p-cl : 10, s, so-ha, m-r	9 : 10 : 9, oc-m-r
16	3.3	10.7	SW	SW : SSW	4.0	0.30	333	p-cl	: p-cl : 7, cu, cl, ci-s, so-ha	p-cl, so-ha : p-cl, cu, ci-cu, d : p-cl
17	3.5	10.6	SSW : SW	SW : SSW	3.9	0.38	328	1	: p-cl : 9, cu, p, cl-s, fq-th-r	v, shs-r : 9, oc-shs : 9
18	2.6	10.5	S	SSW : S	2.0	0.16	248	p-cl	: p-cl : 9, s, th-cl, so-ha	9, ci, cl-s, s, so-ha : 10, n, sh-r : 9, th-cl, d
19	7.1	10.5	S : WSW : SW	WSW : SW : SSW	2.7	0.29	332	9, r	: 9 : p-cl, cu, th-cl	cu, th-cl : cu, th-cl, hy-d : 8, sh-r
20	5.2	10.4	SSW	SSW : SE : S	1.3	0.03	172	p-cl, hy-d, ho-fr	: 2, li-cl, m : p-cl, th-cl	8, cl-s, th-cl, so-ha : p-cl, ci-s, d : 10
21	2.6	10.3	S : SSE	SSE	1.4	0.08	198	p-cl	: 9 : 9, cu, th-cl	9, cl, ci-s, so-ha : 9, l : p-cl
22	3.4	10.3	SSE	SSW : SW	1.3	0.07	212	p-cl	: 9 : 8, ci-s, s, so-ha	p-cl, ci, s : p-cl, cu, s, oc-slt-r : p-cl, hy-d
23	6.2	10.2	S : SSW : SW	SW : SSW	1.8	0.16	265	9, r	: p-cl : 9, sc, cu, n	p-cl, ci, cu : 3, cu, th-cl : p-cl
24	4.6	10.1	SSW : S	SSW : N : NNW	1.5	0.08	208	p-cl, hy-d	: p-cl, hy-d : p-cl, cu, th-cl	8, sc, oc-slt-r : p-cl, h : o, h, hy-d, lu-ha
25	6.8	10.1	NNW : N	N : NNE : NE	1.7	0.09	188	o, h, hy-d	: o, h, hy-d : 1, th-cl, h	p-cl, cu, th-cl : 1, h, hy-d : 1, h, hy-d, lu-ha
26	3.1	10.0	Calm	SSE	0.5	0.00	102	h, tk-f, ho-fr	: li-cl, f : p-cl, slt-f, so-ha	9, th-cl, so-ha : th-cl, lu-ha : 9, th-cl
27	3.9	10.0	SSE : SSW : NNW	NW : W : SSW	1.8	0.14	239	10, r	: p-cl : 7, cl, cu, th-cl, h	8, cl, cu, th-cl, so-ha : p-cl, cl, th-cl, slt-f : o, ho-fr, f
28	0.0	9.9	SSW	SSW : SW	5.2	0.64	418	o, ho-fr	: p-cl : 10, oc-th-r	10, th-r, w : 10, r, w : v, shs-r, w
29	4.5	9.8	SW	SW : S	4.5	0.60	412	p-cl, w	: 1 : p-cl, cl, cu, so-ha	p-cl, th-cl, sc : 9, th-cl, lu-ha
30	0.0	9.8	SSE : S	Variable	0.8	0.10	179	10, r	: 10, sc, r	10, sc, oc-slt-r : 10, fq-r, l : 10, fq-r
31	1.3	9.7	SW : Calm : NE	NNE : N	1.3	0.04	132	10, oc-th-r	: 10, slt-f, glm : 10, slt-f, m-r	p-cl : 10 : 9, slt-sh
Means	4.1	10.7	...	...	...	0.24	258			
Number of Column for Reference.	19	20	21	22	23	24	25	26		27

The mean *Temperature of Evaporation* for the month was 51°.7, being 3°.8 higher than  
 The mean *Temperature of the Dew Point* for the month was 49°.2, being 3°.5 higher than  
 The mean *Degree of Humidity* for the month was 83.4, being 1.6 less than  
 The mean *Elastic Force of Vapour* for the month was 0.12351, being 0.00044 greater than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4.875, being 0.875 greater than  
 The mean *Weight of a Cubic Foot of Air* for the month was 534 grains, being 6 grains less than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 1, and an overcast sky by 10) was 6.9.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.387. The maximum daily amount of *Sunshine* was 9.0 hours on October 12.  
 The highest reading of the *Solar Radiation Thermometer* was 117°.9 on October 1; and the lowest reading of the *Terrestrial Radiation Thermometer* was 25°.0 on October 26.  
 The mean daily distribution of *Ozone* for the 12 hours ending 9<sup>h</sup> was 2.0; for the 6 hours ending 15<sup>h</sup> was 1.6; and for the 6 hours ending 21<sup>h</sup> was 0.3.  
 The *Proportions of Wind* referred to the cardinal points were N. 4, E. 3, S. 16, and W. 7. One day was calm.  
 The *Greatest Pressure of the Wind* in the month was 5.5 lbs. on the square foot on October 3. The mean daily *Horizontal Movement of the Air* for the month was 258 miles; the greatest daily value was 418 miles on October 28; and the least daily value was 102 miles on October 26.  
*Rain* (0.1005 or over) fell on 17 days in the month, amounting to 3.1040, as measured by gauge No. 6 partly sunk below the ground; being 0.1258 greater than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

Table with columns: MONTH and DAY, 1906; Phases of the Moon; Barometer; TEMPERATURE (Of the Air, Of Evaporation, Of the Dew Point); Difference between the Air Temperature and Dew Point Temperature; TEMPERATURE (Of Radiation); Degree of Humidity; Rain collected in Gauge; Daily Amount of Ozone; Electricity.

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 29.711, being 0.047 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 60.3 on November 22; the lowest in the month was 28.5 on November 19; and the range was 31.8. The mean of all the highest daily readings in the month was 51.5, being 2.5 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 40.4, being 2.5 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 11.0, being 0.1 less than the average for the 65 years, 1841-1905. The mean for the month was 46.5, being 3.0 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine. Sun above Horizon.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						CLOUDS AND WEATHER.				
			OSLER'S.				ROBIN-SON'S.						
			General Direction.		Pressure on the Square Foot.		Greatest.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.	A.M.	P.M.		
			A.M.	P.M.									
Nov. 1	0'0	9'7	N	N : NNW : NW	2'2	0'17	226	10	: 10, sc	10	: 10	: 10, slt-r	
2	1'2	9'6	NW : W : WSW	SW : SSW : S	2'8	0'22	302	10, oc, slt-r	: 10, sc, fq-r	p-cl, ci, s, so, ha	4, ci, ci-s, hy-d	p-cl, li, shs, lu, ha	
3	3'6	9'5	SE : SSE	SSW : S : SE	1'0	0'03	174	p-cl, shs-r	: 10	p-cl, ci, ci-s, cu, so, ha	p-cl, ci, cu, n	p-cl, shs-r : p-cl, oc-shs	
4	1'8	9'5	ESE	E : ENE : Variable	10'0	0'49	313	p-cl, oc-r	p-cl : 9, sc, n, oc-r	10, fq-r, w	: 10, fq-r, w	: 10, slt-r	
5	7'0	9'4	WSW : SW	WSW : SSW	5'4	0'50	385	9, slt-r, w	p-cl : 1, ci-s, cu, th-cl	1, ci-s, th-cl, h	: 0	: 1, slt-f, hy-d	
6	0'1	9'4	Calm : NNE : NE	NE : NNE : ESE	5'6	0'42	267	p-cl, tk, fr	: 10, f	9, slt-f, so, ha	10, slt-f	: 10, c-r, w	: 9, oc-r, w
7	1'8	9'3	E : ESE	SW : NE : NNE	1'4	0'10	187	9	: p-cl : p-cl, cu	9, cu, n	: p-cl	: 10, slt-r	
8	0'0	9'3	NNE : NE	NNE : N : NE	3'7	0'43	352	10, slt-r	: 10, sc, c-r	10, sc, c-r	: 10, fq-r		
9	0'0	9'2	NE	NE : NNE	5'8	0'80	453	p-cl	: 10, slt-sh : 10, sc, cu, n	10, cu, n, sc, oc-th-r	: 10, oc-slt-r, w	: 10, w	
10	4'2	9'1	NNE : NE	NE	3'6	0'57	375	10, w	: p-cl : 8, cu, th-cl, w	p-cl, cu-s	: 3, th-cl	: th-cl, d	
11	4'9	9'1	NNE : Calm	NNE : N	0'2	0'00	110	p-cl, ho-fr	p-cl, h, ho-fr : 1, ci, slt-f	1, th-cl	: 0	: 0, ho-fr	
12	4'1	9'0	Calm : Variable	NNE : Calm	0'3	0'00	87	0, f, ho-fr	p-cl, f : 1, f, h, so, ha	p-cl, cu, so, ha	: p-cl, m	: p-cl, m, h, ho-fr	
13	0'0	9'0	Calm : NE	Calm	0'0	0'00	54	9	: 10 : 10, slt-f	10, slt-f	: 10, f		
14	0'0	8'9	Calm : SE	SE : SSE : S	0'6	0'00	112	10, m	: 10	10	: 10	: p-cl	
15	1'1	8'8	SSW : SW	SSW : WSW : NW	13'7	0'85	478	9, r	: 9 : 8, cu, cu-s, n, s	10, n, oc-shs, w	: 10, fq-r, st-w	: 10, st-w	
16	0'0	8'8	NW : SW	S : SSW : SW	10'7	0'72	438	p-cl, st-w	1, h : p-cl, sh-r, so, ha	10, sc, c-r, w	: 9, oc-m-r		
17	0'1	8'8	SW : SSW	WSW : SW	13'0	1'08	564	p-cl, w	p-cl, w : 10, sc, r, w	p-cl, r, st-w	: p-cl, st-w	: 1, th-cl	
18	0'4	8'7	SSW : S	SSW : SW : WSW	2'5	0'15	278	p-cl	: p-cl, th-cl : p-cl, cu, n, s	10, oc-r	: 10	: p-cl, th-cl	
19	1'2	8'7	SW	WSW : W	5'8	0'26	309	0, ho-fr	0 : 8, cu, th-cl, slt-f	7, th-cl, n, slt-sh	: p-cl, th-cl	: p-cl, sh-r, w	
20	5'7	8'6	W : WSW	W : SW : S	3'8	0'46	421	p-cl, ho-fr	0 : 1, th-cl, slt-h	4, cu, ci-s, so, ha	: 10	: 10, slt-r	
21	0'2	8'6	S : SSW : WSW	WSW : SW : SSW	4'2	0'34	348	0, r	: 9, oc-r, w : 10	p-cl, cu, sc	: 10	: 10, oc-th-r	
22	5'0	8'5	SW	SW : SSW	5'0	0'53	413	10	: 10 : p-cl, cu, th-cl, w	3, ci, ci-s	: 1, ci, ci-s, d, w	: p-cl, th-cl, hy-d	
23	0'0	8'5	SSW : S : SW	SW	0'8	0'02	160	p-cl, hy-d	p-cl : 10	9	: p-cl, f	: 10, f	
24	0'0	8'4	SW	SW	0'6	0'01	151	10, tk-f	: 10, slt-f : 10	10	: 10		
25	0'0	8'4	SW : WSW	WSW : W : SW	0'6	0'03	212	10	: 10	10	: 10, slt-f		
26	0'0	8'3	SW	SW : WSW	2'4	0'14	265	10, slt-f	: 10, slt-f	10, slt-f	: 10	: 10	
27	1'9	8'3	WSW : SW : W	NNW : NW : W	4'9	0'71	449	10	: 10, oc-r, w : p-cl, oc-th-r, h	8, cu-s, n, w	: p-cl, s, h, w, lu-co	: 9, th-cl	
28	0'8	8'3	WSW : SW	WSW : SW	3'4	0'22	326	p-cl, li-cl	: 10	p-cl, ci, ci-cu	: p-cl	: 10	
29	0'0	8'2	WSW : SW	WSW : SW	8'2	0'88	553	9, w	: 10 : 10, n	10, sc, oc-m-r	: 10, w	: 9, w	
30	0'0	8'2	SW : WSW : NW	NNW : NW : W	16'0	1'10	542	9, g	: 10, st-w : 10, sc, oc-slt-r, w	10, oc-slt-r	: 10, th-cl, lu, ha	: 9, th-cl, lu, ha	
Means	1'5	8'9	...	...	...	0'37	310						
Number of Column for Reference.	19	20	21	22	23	24	25		26			27	

The mean *Temperature of Evaporation* for the month was 44°·9, being 3°·0 higher than  
 The mean *Temperature of the Dew Point* for the month was 43°·0, being 3°·0 higher than  
 The mean *Degree of Humidity* for the month was 88°·0, being 0°·7 greater than  
 The mean *Elastic Force of Vapour* for the month was 0<sup>in</sup>·277, being 0<sup>in</sup>·030 greater than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3<sup>grs</sup>·2, being 0<sup>gr</sup>·4 greater than  
 The mean *Weight of a Cubic Foot of Air* for the month was 543 grains, being 5 grains less than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 8°·0.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·169. The maximum daily amount of *Sunshine* was 7°·0 hours on November 5.  
 The highest reading of the *Solar Radiation Thermometer* was 100°·2 on November 3; and the lowest reading of the *Terrestrial Radiation Thermometer* was 17°·2 on November 19.  
 The mean daily distribution of *Ozone* for the 12 hours ending 9<sup>h</sup> was 1·1; for the 6 hours ending 15<sup>h</sup> was 0·1; and for the 6 hours ending 21<sup>h</sup> was 0·0.  
 The *Proportions of Wind* referred to the cardinal points were N. 5, E. 3, S. 9, and W. 10. Three days were calm.  
 The *Greatest Pressure of the Wind* in the month was 16° lbs. on the square foot on November 30. The mean daily *Horizontal Movement of the Air* for the month was 310 miles; the greatest daily value was 564 miles on November 17; and the least daily value was 54 miles on November 13.  
*Rain* (0<sup>in</sup>·005 or over) fell on 17 days in the month, amounting to 4<sup>in</sup>·114, as measured by gauge No. 6 partly sunk below the ground; being 1<sup>in</sup>·894 greater than the average fall for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

Table with columns: MONTH and DAY, 1906; Phases of the Moon; BAROMETER; TEMPERATURE (Of the Air, Of Evaporation, Of the Dew Point, Difference between Air and Dew Point, Of Radiation); Degree of Humidity; Rain collected in Gauge No. 6; Daily Amount of Ozone; Electricity. Rows include Dec 1-31 and Means.

The results apply to the civil day.

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

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

The mean reading of the Barometer for the month was 29.789, being 0.004 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 54.3 on December 3; the lowest in the month was 19.8 on December 30; and the range was 34.5. The mean of all the highest daily readings in the month was 42.3, being 1.9 lower than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 32.0, being 3.0 lower than the average for the 65 years, 1841-1905. The mean of the daily ranges was 10.3, being 1.1 greater than the average for the 65 years, 1841-1905. The mean for the month was 37.7, being 2.2 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1906.	Daily Duration of Sunshine.		WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.	
	hours.	Sun above Horizon.	OSLER'S.				ROBIN-SON'S.		
			General Direction.		Pressure on the Square Foot.				
			A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.			
hours.	hours.			lbs.	lbs.	miles.	A.M.	P.M.	
Dec. 1	5.4	8.2	W : NW : NNW	NNW : SW	13.0	0.95	463	p-cl : p-cl, w : 1, ci, th-cl, st-w	1, ci-s, th-cl, w : 1, th-cl : o, ho-fr, h, lu-ha
2	0.0	8.1	SW	WSW : SW	3.1	0.32	362	p-cl : 10 : 10	p-cl, ci, ci-s : 9
3	0.7	8.1	WSW	W	14.7	1.21	646	9 : 10, st-w : 9, n, sc, st-w, oc-th-r	V, st-w : 10, th-cl, st-w : p-cl, w, lu-ha, prs
4	0.0	8.1	W	W : WSW : SW	2.9	0.50	459	9 : 10 : 10	10 : 10 : 9, slt-sh, lu-ha
5	1.3	8.0	WSW : WNW	W : WSW	13.3	0.84	534	10 : 10, w : 7, ci-s, n, sh-r, w	6, cu, n, st-w : p-cl, cu, th-cl, w : p-cl, h, r
6	5.0	8.0	N	N : NNE	5.0	0.62	403	p-cl, r : 0 : 1, th-cl	p-cl, cu, th-cl, oc-r, w : p-cl, sh-r, w : 1
7	5.4	8.0	N : NNE	NE : SW	3.8	0.20	231	0 : p-cl : 1, th-cl	2, ci, cl-s, th-cl : 2, li-cl, f : f, ho-fr
8	0.0	7.9	SW	SW : WSW	3.8	0.37	380	f, ho-fr : 10 : 9, oc-th-r	10, sc, slt-r : 10 : 9, th-cl
9	1.3	7.9	WSW : WNW	NNW : NW	12.5	0.85	486	9, w, oc-r : 10, w, sh-r : 9, n, w	p-cl, cu, n, w : p-cl : 9
10	4.4	7.9	NW : NNW	NNW : NW : W	2.8	0.37	326	o, ho-fr : o, ho-fr : 1, th-cl	1, th-cl : 1, th-cl, slt-f : o, f, ho-fr
11	0.0	7.9	SW	SW : SSW	1.5	0.07	241	p-cl, ho-fr : 9, ho-fr : 9, slt-f	10, slt-f, oc-m-r : 10, oc-th-r
12	2.5	7.8	WSW : SW : SSW	WSW	13.0	1.11	570	p-cl : p-cl : 8, cu, n, sc, st-w	p-cl, shs-r, h, sn, st-w : 9, st-w : p-cl, w
13	0.0	7.8	WSW : SW : SSW	SSW : WSW : W	3.5	0.23	314	o, ho-fr : p-cl : 10, sc, sh-r	p-cl, fq-r : p-cl : p-cl
14	0.4	7.8	WSW : W : WNW	NW : WNW : W	9.0	0.78	480	p-cl, sn : 10, sn, r, w : 9, w	p-cl, slt-r, w : 2, li-cl : 1
15	0.0	7.8	NW : W : WSW	WSW : S	1.1	0.03	168	p-cl, ho-fr : p-cl, h, cl, slt-f : p-cl, f	10, slt-f : 9, slt-f : 10, slt-f
16	0.0	7.8	SW : SE : S	S : SSW	1.5	0.07	192	10, r : 10, c-r	10, c-r : 10, c-r, m
17	0.0	7.8	S : SSW : SW	SW	0.1	0.00	147	10, th-r, f : 10, slt-f	10, slt-f : 10 : 10
18	0.0	7.8	SW : WSW	NE : ENE	0.3	0.00	142	10 : 10, slt-f	10, m-r : p-cl, m : 10, oc-m-r
19	0.0	7.8	E : ENE	SE : E : ESE	0.5	0.00	104	10, oc-m-r : 10 : 10, f	10 : 10
20	0.0	7.8	E : NE	E : NE : ENE	1.1	0.04	158	10 : 10	10 : 10 : 10, th-r
21	0.0	7.8	ENE	E : ENE : NE	3.0	0.37	322	10 : 10	10, th-cl : p-cl, th-cl : o, ho-fr
22	1.6	7.8	N : NE	ENE : ESE : SE	2.6	0.19	257	o, ho-fr : o, ho-fr : p-cl, li-cl	p-cl, cu, n, li-cl : p-cl : 10, fr
23	0.0	7.8	SE : N	N : WSW : W	2.0	0.07	158	10, fr : 10	10, glm : 10 : 9, fr
24	0.0	7.8	WSW : SW	WSW : SW	3.0	0.27	341	o, ho-fr : 10, s, li-cl : 10, sh-r, slt-f	9, th-cl : 10, shs-r : 10, li-shs
25	1.7	7.8	N : NW	NNW : W : SW	4.8	0.33	297	9 : 9 : p-cl, s, th-cl, h	p-cl, h : p-cl, slt-m : 10, th-cl, lu-ha
26	0.5	7.8	SE : Variable : N	N : NNW : WSW	5.1	0.50	390	10, sn : 10 : 10, oc-sn, w	p-cl, sn : p-cl : p-cl, slt-sn
27	1.0	7.8	WSW : NW : NNW	WNW : WSW : SW	5.7	0.50	415	10, oc-sn : 10, oc-sn : p-cl, th-cl, w	3, ci, ci-s, h : o : 1
28	0.0	7.8	WSW : W	W : WNW : NNW	3.2	0.35	377	10, sn : 10 : 10	10, sn : 10 : 10, sl
29	0.0	7.8	N	N : SW	5.7	0.38	266	p-cl : p-cl, slt-sn, w : 9, cu-s, n, sn	p-cl, th-cl, h : o, f : f, ho-fr
30	0.0	7.8	SW : Calm : S	S : SSW	2.3	0.11	200	p-cl : p-cl : 8, ci-s, th-cl, h	10, sn, sl : 10, sl : 10, sl
31	1.4	7.8	SSW : WSW : SW	SW : SSW : WSW	2.8	0.23	322	10, sl, fr : p-cl : 7, ci-s, th-cl	9, slt-sh : 10, oc-th-r : 8
Means	1.1	7.9	...	...	...	0.38	327		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 35°·8, being 2°·7 lower than  
 The mean *Temperature of the Dew Point* for the month was 32°·6, being 4°·1 lower than  
 The mean *Degree of Humidity* for the month was 82·2, being 6·4 less than  
 The mean *Elastic Force of Vapour* for the month was 0<sup>in</sup>·185, being 0<sup>in</sup>·033 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 28<sup>grs</sup>·2, being 0<sup>gr</sup>·4 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 555 grains, being 3 grains greater than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0, and an overcast sky by 10) was 7·3.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·134. The maximum daily amount of *Sunshine* was 5·4 hours on December 1 and 7.  
 The highest reading of the *Solar Radiation Thermometer* was 67°·3 on December 7; and the lowest reading of the *Terrestrial Radiation Thermometer* was 15°·6 on December 27.  
 The mean daily distribution of *Ozone* for the 12 hours ending 9<sup>h</sup> was 0·6; for the 6 hours ending 15<sup>h</sup> was 0·0; and for the 6 hours ending 21<sup>h</sup> was 0·0.  
 The *Proportions of Wind* referred to the cardinal points were N. 7, E. 4, S. 6, and W. 13. One day was calm.  
 The *Greatest Pressure of the Wind* in the month was 14·7 lbs. on the square foot on December 3. The mean daily *Horizontal Movement of the Air* for the month was 327 miles; the greatest daily value was 646 miles on December 3; and the least daily value was 104 miles on December 19.  
*Rain* (0<sup>in</sup>·005 or over) fell on 19 days in the month, amounting to 2<sup>in</sup>·162, as measured by gauge No. 6 partly sunk below the ground; being 0<sup>in</sup>·335 greater than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

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

MAXIMA.		MINIMA.		MAXIMA.		MINIMA.		
Greenwich Civil Time, 1906.	Reading.	Greenwich Civil Time, 1906.	Reading.	Greenwich Civil Time, 1906.	Reading.	Greenwich Civil Time, 1906.	Reading.	
d h m	in.	d h m	in.	d h m	in.	d h m	in.	
January	4. 16. 30	29.543	January	3. 6. 55	29.361	March	17. 1. 55	29.931
	5. 19. 50	29.774		4. 23. 20	29.435		20. 0. 15	30.114
	7. 8. 15	29.548		6. 8. 0	29.094		22. 9. 0	30.044
	9. 1. 50	29.517		7. 23. 40	28.997		28. 9. 40	29.940
	11. 10. 35	30.029		9. 15. 5	29.184			
	12. 11. 30	29.780		12. 5. 5	29.674	April	2. 10. 0	30.373
	14. 10. 45	29.993		13. 6. 5	29.448		6. 22. 35	30.325
	16. 9. 20	29.779		15. 20. 30	29.540		9. 8. 55	30.451
	17. 17. 45	29.916		17. 0. 5	29.517		15. 8. 45	30.441
	20. 9. 30	30.402		18. 15. 0	29.191		21. 0. 10	29.893
	23. 10. 40	30.509		21. 6. 20	29.876		23. 9. 45	29.950
	27. 19. 50	30.046		25. 12. 25	29.592		25. 19. 50	29.733
	31. 10. 40	30.273		29. 12. 50	29.922		27. 7. 25	29.671
February	6. 10. 15	30.136	February	3. 13. 10	29.486	May	2. 12. 35	29.619
	7. 11. 15	30.180		6. 23. 35	30.051		5. 9. 55	30.054
	9. 19. 5	29.724		8. 15. 0	29.447		13. 8. 40	29.856
	12. 20. 40	29.421		11. 0. 30	28.692		23. 0. 15	29.783
	14. 19. 40	29.515		13. 19. 0	29.304		25. 22. 20	29.941
	15. 20. 45	29.580		15. 7. 5	29.421		28. 21. 15	29.942
	18. 11. 5	29.741		17. 3. 50	29.361			
	21. 10. 25	30.067		19. 15. 25	29.498	June	4. 23. 5	30.242
	24. 10. 45	29.598		23. 14. 20	29.412		11. 10. 25	30.110
	26. 0. 25	29.421		25. 6. 40	29.235		20. 7. 20	30.213
	28. 11. 45	29.711		27. 10. 10	29.050		25. 8. 10	29.980
March	3. 11. 40	30.304	March	1. 17. 20	29.476		30. 5. 50	30.051
	6. 10. 25	30.186		5. 6. 55	29.962	July	3. 21. 15	29.998
	10. 9. 35	29.902		9. 0. 5	29.625		9. 9. 25	30.096
	13. 1. 5	29.789		11. 18. 50	28.878		15. 23. 15	29.888
	13. 12. 0	29.749		13. 6. 45	29.659		17. 8. 10	29.929
	14. 19. 25	29.954		14. 3. 30	29.625		19. 22. 5	29.787
						July		
							1. 17. 20	29.902
							5. 21. 0	29.763
							15. 15. 55	29.775
							16. 17. 50	29.811
							19. 6. 0	29.641

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, 1906.	Reading.	Greenwich Civil Time, 1906.	Reading.	Greenwich Civil Time, 1906.	Reading.	Greenwich Civil Time, 1906.	Reading.
d h m	in.	d h m	in.	d h m	in.	d h m	in.
July 22. 23. 40	29·874	July 20. 16. 45	29·710	October 25. 19. 5	30·275	October 22. 15. 5	29·738
25. 8. 30	30·014	23. 19. 45	29·748	27. 21. 5	29·927	27. 4. 25	29·820
29. 23. 35	29·827	27. 5. 55	29·672	29. 10. 5	29·469	28. 18. 0	29·340
August 1. 9. 40	29·939	31. 4. 30	29·684	31. 17. 50	29·366	30. 12. 0	29·038
5. 8. 55	30·089	August 2. 21. 0	29·466	November 3. 22. 35	29·271	November 1. 6. 10	29·013
12. 0. 55	29·700	10. 18. 40	29·566	6. 0. 30	29·587	4. 21. 35	28·750
19. 22. 25	30·047	13. 14. 55	29·448	7. 17. 30	29·296	7. 1. 15	29·186
23. 22. 15	29·861	23. 5. 35	29·734	11. 10. 40	30·359	8. 15. 0	29·094
28. 9. 10	30·280	25. 7. 25	29·491	16. 8. 0	29·768	15. 18. 40	29·492
September 5. 9. 0	29·974	September 2. 17. 5	29·789	17. 21. 15	29·259	17. 14. 5	29·107
11. 9. 20	30·209	6. 6. 35	29·768	20. 20. 40	29·660	18. 14. 15	28·930
17. 19. 55	30·044	15. 5. 15	29·385	24. 10. 30	30·395	21. 5. 15	29·488
27. 9. 55	30·468	18. 5. 30	29·850	28. 3. 30	30·057	27. 6. 50	29·862
October 4. 8. 15	29·822	October 2. 22. 25	29·037	December 2. 3. 55	30·162	30. 6. 20	29·664
6. 20. 50	29·891	5. 4. 45	29·603	4. 10. 20	29·922	December 3. 11. 50	29·736
9. 19. 15	29·718	8. 16. 50	29·632	7. 10. 40	30·239	5. 23. 5	29·119
14. 20. 50	29·819	13. 15. 30	29·387	10. 21. 25	29·753	9. 7. 0	29·430
17. 21. 0	29·751	16. 15. 0	29·549	13. 3. 25	29·537	12. 9. 0	29·290
21. 21. 5	29·812	19. 2. 20	29·416	20. 10. 35	30·469	14. 5. 25	29·285
				26. 20. 30	29·051	26. 8. 40	28·765
				29. 21. 15	29·698	27. 0. 50	28·963
						31. 19. 15	29·321

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<sup>h</sup> to 24<sup>h</sup>. 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 1906.  
 [Extracted from the preceding Table.]

MONTH, 1906.	Readings of the Barometer.		Range.
	Highest.	Lowest.	
	in.	in.	in.
January .....	30·509	28·997	1·512
February.....	30·195*	28·692	1·503
March .....	30·304	28·878	1·426
April .....	30·451	29·192	1·259
May .....	30·054	29·272	0·782
June.....	30·242	29·357	0·885
July .....	30·096	29·641	0·455
August.....	30·280	29·448	0·832
September .....	30·468	29·385	1·083
October.....	30·275	29·037	1·238
November.....	30·395	28·750	1·645
December.....	30·469	28·765	1·704

The highest reading in the year was 30<sup>in</sup>·509 on January 23.  
 The range of reading in the year was 1<sup>in</sup>·817.

The lowest reading in the year was 28<sup>in</sup>·692 on February 11.  
 \* This reading occurring at Midnight on January 31 does not appear in the preceding table.

MONTHLY RESULTS of METEOROLOGICAL ELEMENTS for the YEAR 1906.

MONTH, 1906.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR.								Mean Temperature of Evaporation.	Mean Tempera- ture of the Dew Point.	Mean Degree of Humidity, (Saturation = 100.)
		Highest.	Lowest.	Range in the Month.	Mean of all the Highest.	Mean of all the Lowest.	Mean of the Daily Ranges.	Monthly Mean.	Excess of Mean above Average of 65 Years.			
January.....	in. 29·793	° 53·2	° 25·8	° 27·4	° 46·9	° 37·4	° 9·5	° 42·4	° + 3·8	° 40·1	° 37·1	81·9
February....	29·609	50·7	26·1	24·6	44·3	33·5	10·8	38·7	- 0·8	36·3	33·0	80·3
March.....	29·829	65·0	27·4	37·6	48·8	35·6	13·1	41·8	- 0·1	38·7	34·7	76·3
April.....	29·907	73·2	28·1	45·1	57·3	35·2	22·1	45·9	- 1·4	41·0	35·6	68·0
May.....	29·693	76·2	31·6	44·6	62·4	44·4	18·0	52·9	- 0·2	48·9	45·0	75·5
June.....	29·950	82·0	37·6	44·4	69·8	47·9	22·0	58·1	- 1·3	53·4	49·1	72·6
July.....	29·866	86·2	45·1	41·1	75·4	53·3	22·0	63·4	+ 0·7	57·7	53·0	68·9
August.....	29·832	94·3	44·1	50·2	77·0	54·4	22·6	64·7	+ 3·1	58·9	54·1	69·2
September...	30·024	93·5	37·1	56·4	69·8	49·3	20·5	59·2	+ 1·9	54·3	50·1	73·2
October.....	29·681	71·8	32·1	39·7	61·8	46·9	14·9	54·3	+ 4·3	51·7	49·2	83·4
November...	29·711	60·3	28·5	31·8	51·5	40·4	11·0	46·5	+ 3·0	44·9	43·0	88·0
December...	29·789	54·3	19·8	34·5	42·3	32·0	10·3	37·7	- 2·2	35·8	32·6	82·2
Means.....	29·807	Highest 94·3	Lowest 19·8	Annual Range 74·5	58·9	42·5	16·4	50·5	+ 0·9	46·8	43·0	76·6

MONTH, 1906.	Mean Elastic Force of Vapour.	Mean Weight of Vapour in a Cubic Foot of Air.	Mean Weight of a Cubic Foot of Air.	Mean Amount of Ozone.	Mean Amount of Cloud. (0-10.)	RAIN.		WIND.										From Robinson's Anemometer.  Mean Daily Horizontal Movement of the Air.		
						Number of Rainy Days.	Amount collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground.	From Osler's Anemometer.											Number of Calm or nearly Calm Hours.	Mean Daily Pressure on the Square Foot.
								Number of Hours of Prevalence of each Wind referred to different Points of Azimuth.												
								N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.					
January.....	in. 0·221	grs. 2·6	grs. 550	2·3	6·8	18	in. 3·713	h 44	h 17	h 16	h 45	h 69	h 320	h 190	h 32	h 11	lbs. 0·58	miles. 413		
February....	0·188	2·2	551	2·7	6·9	18	1·804	79	51	31	22	77	182	141	77	12	0·50	371		
March.....	0·201	2·4	551	3·1	6·8	18	1·093	164	146	21	9	33	229	110	26	6	0·57	393		
April.....	0·208	2·4	548	1·4	4·5	9	0·672	99	160	111	73	36	84	91	22	44	0·31	278		
May.....	0·299	3·4	536	5·0	7·5	12	1·565	132	77	48	54	92	208	68	32	33	0·27	271		
June.....	0·349	3·9	535	4·0	5·7	7	2·801	101	146	94	54	21	126	85	50	43	0·18	234		
July.....	0·403	4·5	528	1·9	5·4	7	0·414	90	102	78	32	4	228	159	22	29	0·16	236		
August.....	0·419	4·6	526	3·1	5·6	8	1·388	18	24	50	42	70	324	156	40	20	0·23	266		
September...	0·362	4·0	535	2·0	5·1	11	1·971	158	123	85	51	53	93	57	30	70	0·21	229		
October.....	0·351	4·0	534	3·9	6·9	17	3·040	60	10	34	84	221	244	24	37	30	0·24	258		
November...	0·277	3·2	543	1·2	8·0	17	4·114	64	78	26	36	71	257	99	23	66	0·37	310		
December...	0·185	2·2	555	0·6	7·3	19	2·162	95	64	43	22	50	198	175	72	25	0·38	327		
Sums.....	...	...	...	...	...	161	24·737	1104	998	637	524	797	2493	1355	463	389	...	...		
Means.....	0·289	3·3	541	2·6	6·4	...	...	...	...	...	...	...	...	...	...	...	0·33	299		

The greatest recorded pressure of the wind on the square foot in the year was 19·4 lbs. on January 18.  
 The greatest recorded daily horizontal movement of the air in the year was 767 miles on January 6.  
 The least recorded daily horizontal movement of the air in the year was 54 miles on November 13.

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

Table with columns for Hour, Greenwich Civil Time, and months from January to December for the year 1906. It includes monthly mean readings in inches for each hour from Midnight to 24h, along with yearly means and the number of days employed.

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

Table with columns for Hour, Greenwich Civil Time, and months from January to December for the year 1906. It includes monthly mean temperatures in degrees Fahrenheit for each hour from Midnight to 24h, along with yearly means and the number of days employed.



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

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

Table with 14 columns: Hour, Greenwich Civil Time.; 1906. (January-December); Yearly Means. Rows include hourly humidity values from Midnight to 24h, and monthly means for two periods: 0h-23h and 1h-24h.

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 1906.

Table with 20 columns: Month, 1906.; Registered Duration of Sunshine in the Hour ending (5h-20h); Total registered Duration of Sunshine in the Month.; Corresponding aggregate Period during which the Sun was above the Horizon.; Proportion of Sunshine.; Mean Altitude of the Sun at Noon. Rows include monthly sunshine data for 1906 and a summary row for 'For the year'.

The hours are reckoned from apparent midnight.



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

FEBRUARY.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>		Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	46.4	42.1	43.9	45.9	44.9	43.1	+0.2	-0.2	+0.3	+0.1	+0.1	+0.3	1	46.4	40.2	43.8	46.0	45.0	43.0	+0.2	-2.1	+0.2	+0.2	+0.2	+0.2
2	49.0	39.4	42.7	46.9	47.7	42.3	-0.4	+0.1	-0.1	-0.3	+0.2	0.0	2	49.7	39.0	42.6	47.3	48.1	42.3	+0.3	-0.3	-0.2	+0.1	+0.6	0.0
3	42.6	37.1	40.3	40.9	41.2	37.5	+0.3	+1.0	0.0	+0.4	+0.3	+0.6	3	44.4	35.7	40.1	41.2	40.9	37.2	+2.1	-0.4	-0.2	+0.7	0.0	+0.3
4	39.4	34.2	...	...	...	...	-0.1	-0.1	...	...	...	...	4	39.6	33.3	...	...	...	...	+0.1	-1.0	...	...	...	...
5	40.1	33.1	33.4	38.3	38.9	34.5	-0.9	+1.0	0.0	-0.3	+0.2	+0.2	5	40.6	32.1	33.1	38.0	39.1	33.9	-0.4	0.0	-0.3	-0.6	+0.4	-0.4
6	37.8	33.7	33.7	35.1	35.3	34.7	+1.8	+1.5	+0.3	-0.1	0.0	+0.1	6	36.5	32.0	33.1	35.1	35.5	34.3	+0.5	-0.2	-0.3	-0.1	+0.2	-0.3
7	43.9	32.5	35.9	41.8	43.7	36.9	-0.3	-0.6	+0.5	+0.2	+0.2	+0.1	7	44.0	32.3	35.9	41.1	43.5	36.9	-0.2	-0.8	+0.5	-0.5	0.0	+0.1
8	45.6	33.6	40.4	44.3	44.1	34.6	-0.4	+0.3	-0.3	+0.1	+1.0	+0.3	8	46.2	32.9	40.5	44.3	44.0	34.4	+0.2	-0.4	-0.2	+0.1	+0.9	+0.1
9	36.8	30.3	32.7	36.3	36.1	31.9	+0.1	-0.1	0.0	+0.7	+0.5	+0.1	9	36.8	30.1	32.6	35.8	36.0	31.6	+0.1	-0.3	-0.1	+0.2	+0.4	-0.2
10	49.0	30.5	42.2	47.8	47.1	41.8	-0.7	-0.5	-0.4	+0.3	0.0	+0.2	10	50.2	30.4	42.3	48.0	47.0	41.5	+0.5	-0.6	-0.3	+0.5	-0.1	-0.1
11	43.1	34.5	...	...	...	...	-0.9	+0.2	...	...	...	...	11	43.6	33.9	...	...	...	...	-0.4	-0.4	...	...	...	...
12	40.8	30.4	31.8	36.8	40.8	33.3	+0.1	+0.1	-0.3	+0.9	+0.6	+2.6	12	40.4	30.1	31.5	36.5	40.1	32.6	-0.3	-0.2	-0.6	+0.6	-0.1	+1.9
13	39.9	28.1	33.8	39.3	35.1	34.4	-0.8	+1.0	+0.2	-0.1	-0.3	+0.3	13	41.5	27.2	34.0	39.6	35.9	34.3	+0.8	+0.1	+0.4	+0.2	+0.5	+0.2
14	45.8	30.0	33.9	43.2	44.6	36.8	-0.4	-0.1	-0.7	+0.5	-0.8	+1.0	14	46.6	29.2	34.2	43.5	44.7	36.8	+0.4	-0.9	-0.4	+0.8	-0.7	+1.0
15	42.3	35.0	40.1	39.9	41.3	35.9	-0.9	+1.1	-0.1	-0.8	+0.1	+3.5	15	43.0	34.2	40.9	39.9	41.3	35.9	-0.2	+0.3	+0.7	-0.8	+0.1	+3.5
16	50.2	35.1	43.9	47.8	49.2	46.5	-0.5	+2.7	+0.1	+0.2	-0.3	-0.1	16	50.5	35.0	43.9	47.9	49.9	46.3	-0.2	+2.6	+0.1	+0.3	+0.4	-0.3
17	48.0	38.8	41.9	41.9	41.9	39.7	0.0	-0.3	-0.1	-0.2	0.0	+0.1	17	49.0	37.2	42.2	41.9	41.9	39.6	+1.0	-1.9	+0.2	-0.2	0.0	0.0
18	41.4	39.3	...	...	...	...	+0.1	+0.8	...	...	...	...	18	41.4	38.0	...	...	...	...	+0.1	-0.5	...	...	...	...
19	45.4	38.5	42.2	45.1	44.1	39.3	-0.8	+0.2	-0.6	-0.1	-0.2	0.0	19	46.3	38.0	42.6	45.8	43.9	39.2	+0.1	-0.3	-0.2	+0.6	-0.4	-0.1
20	45.0	35.1	38.0	42.7	44.0	39.4	-0.4	-0.5	+0.1	+0.2	+0.3	+0.8	20	45.2	34.9	38.0	42.6	44.1	39.2	-0.2	-0.7	+0.1	+0.1	+0.4	+0.6
21	43.7	30.5	32.8	41.1	43.6	32.4	+0.2	+0.6	-0.7	0.0	+0.9	+2.8	21	43.3	30.1	32.9	40.8	42.4	33.7	-0.2	+0.2	-0.6	-0.3	-0.3	+4.1
22	43.3	28.5	32.7	41.9	41.9	36.3	-1.3	+2.4	+0.9	+0.1	0.0	0.0	22	45.1	27.8	35.5	42.9	42.9	36.0	+0.5	+1.7	+3.7	+1.1	+1.0	-0.3
23	38.7	33.2	34.5	36.9	37.1	34.9	+0.5	-0.6	+0.1	-0.2	-0.4	+0.2	23	38.4	32.1	34.2	36.9	37.7	34.6	+0.2	-1.7	-0.2	-0.2	+0.2	-0.1
24	42.6	28.8	30.8	39.0	40.9	37.0	0.0	+0.8	+0.4	+0.3	+0.2	-0.1	24	42.9	28.5	30.6	38.8	40.9	36.9	+0.3	+0.5	+0.2	+0.1	+0.2	-0.2
25	49.0	35.8	...	...	...	...	-0.7	+0.3	...	...	...	...	25	49.4	35.3	...	...	...	...	-0.3	-0.2	...	...	...	...
26	49.0	37.9	42.2	46.8	47.9	43.0	-1.1	+0.2	-0.4	+0.2	-0.1	+0.4	26	49.9	37.2	42.3	46.9	48.1	42.9	-0.2	-0.5	-0.3	+0.3	+0.1	+0.3
27	46.4	37.8	43.0	45.0	44.5	38.3	-0.6	0.0	-0.4	+0.1	+0.8	+0.5	27	46.6	37.4	43.2	45.3	44.0	37.8	-0.4	-0.4	-0.2	-0.4	+0.3	0.0
28	43.5	34.1	35.7	40.5	42.7	41.8	+0.5	+0.6	0.0	+0.4	+0.5	-0.2	28	43.1	33.6	35.8	40.7	42.6	41.6	+0.1	+0.1	+0.1	+0.6	+0.4	-0.4
Means	43.9	34.2	37.6	41.9	42.4	37.8	-0.3	+0.4	0.0	+0.1	+0.2	+0.6	Means	44.3	33.5	37.7	42.0	42.5	37.6	+0.2	-0.3	+0.1	+0.2	+0.2	+0.4





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

APRIL.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>		Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	o	o	o	o	o	o	o	o	o	o	o	o	d	o	o	o	o	o	o	o	o	o	o	o	
1	50.2	40.2	...	...	...	...	-1.0	+1.9	...	...	...	...	1	50.8	39.9	...	...	...	...	-0.4	+1.6	...	...	...	...
2	46.0	34.1	40.1	43.5	45.0	41.0	-2.1	+0.9	-0.7	-0.7	-0.6	+0.2	2	50.5	33.1	41.9	45.0	46.8	40.6	+2.4	-0.1	+1.1	+0.8	+1.2	-0.2
3	57.0	35.0	46.9	56.8	52.9	42.0	-2.3	+0.8	+0.3	+0.4	-1.1	+0.4	3	58.2	33.1	46.9	57.2	53.4	41.1	-1.1	-1.1	+0.3	+0.8	-0.6	-0.5
4	54.8	36.7	49.4	53.8	54.3	43.3	-1.7	+3.2	-0.5	-0.5	-0.2	+1.5	4	55.7	34.3	49.7	52.8	54.3	41.9	-0.8	+0.8	-0.2	-1.5	-0.2	+0.1
5	58.7	39.1	52.2	58.6	56.9	45.1	-2.9	+2.8	-1.3	-0.7	-2.7	+0.2	5	60.0	37.5	52.9	59.8	57.2	44.7	-1.6	+1.2	-0.6	+0.5	-2.4	-0.2
6	58.2	37.1	49.8	56.1	57.8	44.1	-1.4	+0.5	-0.3	-0.6	-0.3	+2.1	6	61.6	36.1	50.9	57.7	58.8	42.8	+2.0	-0.5	+0.8	+1.0	+0.7	+0.8
7	59.1	35.3	49.5	57.9	59.1	47.3	-1.8	+5.0	+1.8	+0.7	+0.5	+2.3	7	61.6	33.9	47.1	58.0	61.0	47.9	+0.7	+3.6	-0.6	+0.8	+2.4	+2.9
8	58.6	41.1	...	...	...	...	-0.9	+1.4	...	...	...	...	8	58.6	41.0	...	...	...	...	-0.9	+1.3	...	...	...	...
9	58.7	40.1	47.8	56.0	58.7	43.7	-1.4	0.0	+0.3	-0.7	+0.1	+0.2	9	61.3	39.1	46.9	56.9	59.9	42.5	+1.2	-1.0	-0.6	+0.2	+1.3	-1.0
10	61.6	36.1	49.5	59.9	61.4	50.1	-1.6	+0.5	0.0	-0.8	-1.1	+1.5	10	62.9	35.4	49.7	60.6	62.9	48.9	-0.3	-0.2	+0.2	-0.1	+0.4	+0.3
11	67.8	39.4	51.0	64.9	66.1	52.1	-1.5	+0.4	+0.4	-0.4	-0.6	+2.3	11	70.0	38.2	51.8	65.8	66.8	51.1	+0.7	-0.8	+1.2	+0.5	+0.1	+1.3
12	72.0	42.6	60.9	70.8	71.9	56.2	-1.2	+2.5	+0.6	-1.7	+1.6	+2.3	12	73.6	42.3	60.9	71.5	72.4	55.6	+0.4	+2.2	+0.6	-1.0	+2.1	+1.7
13	71.2	48.9	...	...	...	...	-1.8	+1.6	...	...	...	...	13	72.9	48.4	...	...	...	...	-0.1	+1.1	...	...	...	...
14	57.2	41.9	43.7	50.4	52.0	42.6	+1.0	+1.1	-0.3	+0.3	+0.6	+1.6	14	56.7	40.1	43.9	49.9	51.2	41.6	+0.5	-0.7	-0.1	-0.2	-0.2	+0.6
15	57.7	31.3	...	...	...	...	-1.1	+3.0	...	...	...	...	15	60.2	30.0	...	...	...	...	+1.4	+1.7	...	...	...	...
16	65.1	32.9	...	...	...	...	-0.9	+3.6	...	...	...	...	16	66.6	32.1	...	...	...	...	+0.6	+2.8	...	...	...	...
17	59.5	37.2	52.7	58.6	56.6	42.7	-0.8	-0.2	+0.3	+0.8	0.0	+0.2	17	60.1	36.4	53.0	57.1	56.9	42.3	-0.2	-1.0	+0.6	-0.7	+0.3	-0.2
18	46.3	39.7	41.6	44.2	45.9	41.3	-0.8	-0.1	-0.1	+0.1	-0.3	0.0	18	46.6	39.7	41.7	44.3	46.1	41.0	-0.5	-0.1	0.0	+0.2	-0.1	-0.3
19	48.0	36.2	42.1	46.6	46.5	40.3	-1.6	-0.9	0.0	-1.0	-0.3	+0.6	19	49.2	34.3	42.1	46.0	46.7	39.8	-0.4	-2.8	0.0	-1.6	-0.1	+0.1
20	55.8	31.0	44.6	50.1	55.0	48.8	-0.6	+2.9	+0.1	+0.4	+0.3	+0.5	20	56.8	30.2	44.9	50.9	55.6	48.3	+0.4	+2.1	+0.4	+1.2	+0.9	0.0
21	63.0	43.1	54.3	61.0	56.7	50.0	0.0	+1.1	+0.7	+1.4	-0.4	+0.4	21	63.1	41.1	54.0	60.8	56.9	49.9	+0.1	-0.9	+0.4	+1.2	-0.2	+0.3
22	55.6	43.1	...	...	...	...	-1.1	+0.9	...	...	...	...	22	55.4	42.3	...	...	...	...	-1.3	+0.1	...	...	...	...
23	51.2	37.1	46.3	48.8	47.6	39.5	-0.8	0.0	+1.8	+0.2	0.0	+0.7	23	51.9	36.1	46.1	49.2	47.9	38.8	-0.1	-1.0	+1.6	+0.6	+0.3	0.0
24	47.6	31.5	35.1	40.6	44.7	38.7	-0.4	+1.2	+0.5	-0.2	+0.4	+1.0	24	47.6	30.9	34.9	40.7	45.0	37.9	-0.4	+0.6	+0.3	-0.1	+0.7	+0.2
25	47.9	35.7	41.6	47.5	47.9	39.2	-1.7	+0.3	0.0	-0.8	+2.2	+1.2	25	51.8	34.5	42.6	47.7	49.7	37.9	+2.2	-0.9	+1.0	-0.6	+4.0	-0.1
26	49.8	30.5	40.9	49.3	48.0	39.8	-1.3	+1.3	-1.0	-0.4	-0.6	+1.0	26	52.8	29.8	42.1	49.7	50.2	38.9	+1.7	+0.6	+0.2	0.0	+1.6	+0.1
27	55.9	32.7	45.3	52.5	54.9	45.9	-0.2	+0.5	+1.7	+1.4	-0.3	+0.3	27	57.4	31.2	42.9	52.8	55.1	45.2	+1.3	-1.0	-0.7	+1.7	-0.1	-0.4
28	50.7	38.1	43.8	48.8	50.2	38.9	-0.7	+0.2	-0.9	+0.8	+0.3	+1.0	28	51.6	37.3	45.4	48.8	50.5	38.2	+0.2	-0.6	+0.7	+0.8	+0.6	+0.3
29	50.0	31.1	...	...	...	...	-1.5	+0.3	...	...	...	...	29	50.2	29.5	...	...	...	...	-1.3	-1.3	...	...	...	...
30	50.2	34.8	43.0	48.9	47.8	43.9	-1.5	+1.7	-1.0	-0.3	+1.1	+0.2	30	51.8	33.9	42.9	50.0	47.2	43.9	+0.1	+0.8	-1.1	+0.8	+0.5	+0.2
Means	56.2	37.1	46.6	53.3	53.8	44.2	-1.2	+1.3	+0.1	-0.1	-0.1	+0.9	Means	57.6	36.1	46.7	53.6	54.5	43.5	+0.2	+0.2	+0.2	+0.2	+0.6	+0.3

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

MAY.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>		Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	51.4	35.0	43.8	47.7	47.0	41.8	0.0	+1.3	+0.5	+0.4	-0.2	+0.9	1	53.1	34.0	43.1	48.2	46.9	41.2	+1.7	+0.3	-0.2	+0.9	-0.3	+0.3
2	49.9	37.1	46.2	46.0	46.2	49.9	-0.4	+2.5	-1.4	-0.7	-0.1	+0.2	2	51.8	36.3	47.4	47.7	46.6	49.9	+1.5	+1.7	-0.2	+1.0	+0.3	+0.2
3	59.5	47.1	53.4	59.5	56.1	49.7	-2.8	0.0	-0.2	-1.1	-0.7	+0.4	3	60.0	46.4	54.0	60.0	56.3	49.1	-2.3	-0.7	+0.4	-0.6	-0.5	-0.2
4	61.5	47.1	54.1	57.7	58.3	50.9	-0.7	+0.2	+0.3	+0.1	+0.2	+0.9	4	61.8	46.5	54.5	57.1	58.8	50.9	-0.4	-0.4	+0.7	-0.5	+0.7	+0.9
5	62.3	40.8	55.4	59.4	58.1	48.8	-0.9	+0.5	0.0	-0.4	+0.3	+0.2	5	62.8	40.1	55.8	60.3	58.8	48.7	-0.4	-0.2	+0.4	+0.5	+1.0	+0.1
6	55.6	48.1	...	...	...	...	-1.0	0.0	...	...	...	...	6	56.2	47.9	...	...	...	...	-0.4	-0.2	...	...	...	...
7	66.7	51.6	55.8	62.2	66.1	55.1	-4.3	0.0	-0.6	-1.9	-0.7	+3.4	7	70.4	51.3	56.5	62.9	66.5	53.9	-0.6	-0.3	+0.1	-1.2	-0.3	+2.2
8	74.9	44.4	65.0	73.2	74.3	57.5	-1.3	+2.1	-0.3	+0.8	-1.1	+1.1	8	79.4	43.9	65.5	73.7	75.9	57.3	+3.2	+1.6	+0.2	+1.3	+0.5	+0.9
9	62.9	49.3	57.7	62.5	58.7	51.5	-0.6	+2.2	0.0	+0.3	+1.3	+0.5	9	62.9	49.3	58.5	62.8	58.9	51.8	-0.6	+2.2	+0.8	+0.6	+1.5	+0.8
10	51.6	44.3	45.8	48.5	49.2	46.6	+0.3	0.0	+0.9	-0.1	+0.2	+0.7	10	51.8	43.7	45.7	48.7	50.3	46.0	+0.5	-0.6	+0.8	+0.1	+1.3	+0.1
11	59.0	43.1	53.0	54.5	56.6	49.9	-0.1	+1.1	-1.6	-0.3	+0.9	+0.5	11	61.0	42.3	54.8	54.8	56.8	49.4	+1.9	+0.3	+0.2	0.0	+1.1	0.0
12	69.6	47.1	63.5	68.0	68.6	55.9	-1.4	+0.6	-0.5	-1.2	+0.6	+1.2	12	72.4	46.5	63.7	68.4	69.2	55.9	+1.4	0.0	-0.3	-0.8	+1.2	+1.2
13	72.7	49.1	...	...	...	...	-2.3	+1.9	...	...	...	...	13	76.9	47.9	...	...	...	...	+1.9	+0.7	...	...	...	...
14	66.4	46.9	59.9	65.3	62.5	47.4	-1.6	+0.7	+1.2	-0.3	+1.2	+0.7	14	65.7	46.2	58.8	63.9	60.4	46.9	-2.3	0.0	+0.1	-1.7	-0.9	+0.2
15	59.6	43.9	45.5	54.4	58.7	52.0	-0.8	+1.0	0.0	+0.6	-1.2	+0.3	15	60.3	42.1	45.3	53.1	59.1	51.6	-0.1	-0.8	-0.2	-0.7	-0.8	-0.1
16	53.0	43.1	50.1	50.0	51.6	44.5	-1.3	-0.1	-0.6	-0.6	0.0	+0.5	16	53.6	41.8	50.7	50.4	51.2	43.9	-0.7	-1.4	0.0	-0.2	-0.4	-0.1
17	48.6	41.1	43.2	45.0	47.3	43.9	-0.4	0.0	+1.5	-1.8	+0.6	+1.9	17	49.7	40.4	42.8	44.8	47.5	43.7	+0.7	-0.7	+1.1	-2.0	+0.8	+1.7
18	56.2	34.2	51.3	55.3	55.3	47.7	-1.1	+2.6	+0.2	+0.1	-0.2	+3.2	18	58.8	32.7	51.9	57.3	58.1	46.9	+1.5	+1.1	+0.8	+2.1	+2.6	+2.4
19	62.0	41.0	50.5	57.1	60.9	55.3	-2.2	+1.2	-0.9	-1.5	-0.3	+0.7	19	64.2	40.1	51.4	56.8	61.8	54.9	0.0	+0.3	0.0	-1.8	+0.6	+0.3
20	55.5	43.1	...	...	...	...	+0.9	0.0	...	...	...	...	20	55.7	42.7	...	...	...	...	+1.1	-0.4	...	...	...	...
21	53.6	42.3	49.5	53.5	52.4	47.0	-2.0	0.0	-0.2	+0.5	-0.5	+0.1	21	54.5	41.1	48.5	53.7	52.5	46.8	-1.1	-1.2	-1.2	+0.7	-0.4	-0.1
22	55.8	44.1	48.3	53.1	54.5	49.1	-1.2	+1.0	-1.4	0.0	-0.5	+0.4	22	58.6	42.6	50.9	53.5	55.0	48.9	+1.6	-0.5	+1.2	+0.4	0.0	+0.2
23	68.3	46.7	61.1	66.1	66.1	58.9	-2.7	+0.6	-1.4	-0.6	+0.1	+0.3	23	70.9	45.6	63.5	66.5	66.9	58.7	-0.1	-0.5	+1.0	-0.2	+0.9	+0.1
24	64.1	51.7	61.8	61.8	61.0	52.5	-2.1	+0.5	-0.6	+0.5	-0.6	+0.4	24	66.7	51.1	63.1	62.1	62.4	52.0	+0.5	-0.1	+0.7	+0.8	+0.8	-0.1
25	62.7	44.4	53.9	57.9	57.9	50.0	-1.3	+0.3	-2.6	-2.7	-0.7	+0.5	25	64.0	42.3	54.9	58.1	58.3	49.2	0.0	-1.8	-1.6	-2.5	-0.3	-0.3
26	58.5	46.1	51.1	52.0	57.3	55.0	-1.5	+0.2	+0.4	-0.6	-0.7	+0.3	26	59.7	45.2	51.9	52.2	57.9	54.8	-0.3	-0.7	+1.2	-0.4	-0.1	+0.1
27	64.3	52.2	...	...	...	...	-2.3	-0.3	...	...	...	...	27	66.2	51.1	...	...	...	...	-0.4	-1.4	...	...	...	...
28	72.6	54.1	61.8	66.1	71.9	56.9	-2.2	-0.7	+0.2	-1.1	+0.1	+0.1	28	74.6	53.8	61.9	67.3	74.4	56.5	-0.2	-1.0	+0.3	+0.1	+2.6	-0.3
29	71.4	56.5	63.7	68.0	70.0	59.4	-1.3	+1.2	+2.3	+0.4	-1.5	+0.4	29	73.0	55.2	64.9	68.3	71.2	58.7	+0.3	-0.1	+3.5	+0.7	-0.3	-0.3
30	67.0	49.0	58.9	64.0	65.0	57.0	-2.1	+0.1	-0.5	-0.5	-1.3	+0.4	30	68.7	48.2	59.9	64.0	65.6	56.0	-0.4	-0.7	+0.5	-0.5	-0.7	-0.6
31	62.0	52.2	58.2	60.7	61.7	53.9	-1.6	+0.4	-1.0	-0.1	-0.5	+0.4	31	63.5	51.2	59.8	61.5	62.4	53.2	-0.1	-0.6	+0.6	+0.7	+0.2	-0.3
Means	61.3	45.7	54.2	58.1	59.0	51.4	-1.4	+0.7	-0.2	-0.4	-0.2	+0.8	Means	62.9	44.8	54.8	58.4	59.6	51.0	+0.2	-0.2	+0.4	-0.1	+0.4	+0.3

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

JUNE.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>		Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	o	o	o	o	o	o	o	o	o	o	o	o	d	o	o	o	o	o	o	o	o	o	o	o	
1	61.4	44.7	51.5	57.4	56.8	50.2	-2.2	+0.5	0.0	+0.2	+1.2	+0.7	1	63.1	43.1	52.2	58.3	57.1	49.6	-0.5	-1.1	+0.7	+1.1	+1.5	+0.1
2	60.3	45.9	51.8	55.6	59.8	55.2	-0.8	+0.3	+0.2	+0.2	+0.4	+0.7	2	60.8	45.3	52.2	55.8	60.4	54.8	-0.3	-0.3	+0.6	+0.4	+1.0	+0.3
3	69.9	47.0	...	...	...	...	-0.8	-0.1	...	...	...	...	3	72.2	45.7	...	...	...	...	+1.5	-1.4	...	...	...	...
4	61.6	48.5	...	...	...	...	+0.6	+0.7	...	...	...	...	4	61.2	47.4	...	...	...	...	+0.2	-0.4	...	...	...	...
5	63.7	40.3	48.9	59.4	63.3	48.3	-0.1	+2.7	-0.7	-0.2	+0.7	+0.3	5	64.2	38.3	50.3	58.1	64.2	48.0	+0.4	+0.7	+0.7	-1.5	+1.6	0.0
6	64.6	42.1	56.1	64.5	63.6	51.5	-1.4	+2.4	-0.4	+0.7	0.0	+1.8	6	67.2	40.1	57.0	64.1	65.7	49.9	+1.2	+0.4	+0.5	+0.3	+2.1	+0.2
7	69.8	43.3	62.0	69.1	69.8	55.8	-1.9	+4.2	+0.5	+0.2	+1.2	+1.2	7	73.0	41.1	63.2	70.8	71.5	54.9	+1.3	+2.0	+1.7	+1.9	+2.9	+0.3
8	72.8	47.0	61.5	69.9	72.7	57.4	-1.8	+4.1	+0.9	+0.1	+1.1	+0.7	8	74.5	44.3	60.9	70.5	73.8	56.9	-0.1	+1.4	+0.3	+0.7	+2.2	+0.2
9	71.3	49.1	62.8	69.8	69.0	54.5	-0.8	+3.0	+0.4	+0.1	+0.3	+0.8	9	71.7	49.1	63.0	68.9	68.6	53.9	-0.4	+3.0	+0.6	-0.8	-0.1	+0.2
10	67.8	48.1	...	...	...	...	-1.1	+1.8	...	...	...	...	10	67.9	47.9	...	...	...	...	-1.0	+1.6	...	...	...	...
11	70.0	46.5	51.0	58.0	68.5	54.4	-1.0	+1.2	0.0	+0.4	+0.7	+1.5	11	70.6	46.2	51.0	58.0	69.0	53.1	-0.4	+0.9	0.0	+0.4	+1.2	+0.2
12	71.0	47.4	57.9	59.7	68.1	58.6	-1.0	+0.4	+0.3	-0.4	-1.2	+0.9	12	71.8	47.1	58.7	60.3	68.8	57.8	-0.2	+0.1	+1.1	+0.2	-0.5	+0.1
13	61.0	48.5	51.8	59.5	59.6	52.9	-0.9	+0.4	+0.2	0.0	-0.1	+0.7	13	61.7	48.3	51.9	60.0	60.0	52.5	-0.2	+0.2	+0.3	+0.5	+0.3	+0.3
14	54.9	47.8	50.2	52.0	54.6	51.2	-0.5	+0.3	+0.6	+0.3	+0.6	+0.4	14	54.6	47.7	50.1	51.9	54.4	50.8	-0.8	+0.2	+0.5	+0.2	+0.4	0.0
15	57.1	48.1	51.8	53.2	56.8	49.9	-2.0	+0.4	+0.2	+0.3	+0.2	+0.4	15	57.6	47.4	52.0	52.9	56.5	49.4	-1.5	-0.3	+0.4	0.0	-0.1	-0.1
16	62.3	46.8	52.0	61.3	61.9	51.9	-1.7	+0.7	-0.3	+0.3	+0.5	-0.1	16	64.6	45.4	52.3	63.5	62.9	51.9	+0.6	-0.7	0.0	+2.5	+1.5	-0.1
17	68.6	49.7	...	...	...	...	-1.5	+0.6	...	...	...	...	17	71.6	49.2	...	...	...	...	+1.5	+0.1	...	...	...	...
18	73.0	45.9	64.1	70.4	68.2	58.9	-2.9	+2.8	-0.9	-0.4	0.0	+3.2	18	76.6	44.5	62.2	71.2	70.0	58.6	+0.7	+1.4	-2.8	+0.4	+1.8	+2.9
19	72.8	49.0	65.9	66.3	71.9	60.4	-2.2	+2.6	-0.5	+0.2	-0.2	+3.1	19	75.5	47.3	67.2	66.5	74.0	60.0	+0.5	+0.9	+0.8	+0.4	+1.9	+2.7
20	79.2	52.7	70.7	76.2	79.0	67.0	-2.8	+1.6	+0.2	-1.4	-1.2	-0.4	20	82.9	51.3	73.9	76.9	82.0	66.9	+0.9	+0.2	+3.4	-0.7	+1.8	-0.5
21	75.3	58.9	64.9	72.9	74.6	70.7	-2.4	-0.2	-0.7	-0.8	-0.5	+1.0	21	78.0	58.3	66.6	74.6	74.9	70.0	+0.3	-0.8	+1.0	+0.9	-0.2	+0.3
22	76.6	61.5	70.5	75.3	74.9	68.8	-2.0	+0.5	-0.1	0.0	-0.5	+0.7	22	79.6	61.5	71.5	76.5	76.1	67.9	+1.0	+0.5	+0.9	+1.2	+0.7	-0.2
23	77.0	57.1	73.9	75.5	73.4	57.5	-1.5	+2.4	-0.6	-1.9	-0.2	+0.6	23	79.3	56.4	75.9	76.5	74.2	57.3	+0.8	+1.7	+1.4	-0.9	+0.6	+0.4
24	71.0	56.2	...	...	...	...	-2.0	+0.1	...	...	...	...	24	73.0	55.6	...	...	...	...	0.0	-0.5	...	...	...	...
25	69.5	54.1	62.7	64.7	69.1	59.8	-2.6	+0.2	-0.9	-0.9	-0.3	+0.3	25	71.1	53.2	63.9	66.0	70.8	59.0	-1.0	-0.7	+0.3	+0.4	+1.4	-0.5
26	74.0	55.9	67.1	72.9	70.0	60.9	-0.4	-0.2	-0.5	+0.4	+0.3	+0.3	26	75.4	55.2	68.2	73.7	71.9	60.0	+1.0	-0.9	+0.6	+1.2	+2.2	-0.6
27	75.0	52.6	66.8	72.9	72.6	62.7	-2.8	+1.2	-0.9	+0.5	-1.0	+0.1	27	77.6	51.6	67.0	73.2	73.8	61.9	-0.2	+0.2	-0.7	+0.8	+0.2	-0.7
28	74.8	60.1	64.1	70.3	71.9	61.8	-3.5	0.0	-0.4	-0.1	0.0	+1.1	28	77.0	59.3	65.1	71.9	73.8	61.1	-1.3	-0.8	+0.6	+1.5	+1.9	+0.4
29	61.9	48.3	...	...	...	...	+0.9	+0.1	...	...	...	...	29	61.6	46.6	...	...	...	...	+0.6	-1.6	...	...	...	...
30	63.7	43.3	54.3	59.8	63.5	54.1	-2.3	+2.1	+0.6	-2.0	-1.1	+0.7	30	66.5	41.2	54.7	60.9	64.9	54.9	+0.5	0.0	+1.0	-0.9	+0.3	+1.5
Means	68.4	49.5	59.8	65.3	67.2	57.3	-1.5	+1.2	-0.1	-0.2	0.0	+0.9	Means	70.1	48.5	60.5	65.9	68.3	56.7	+0.2	+0.2	+0.6	+0.4	+1.1	+0.3

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

JULY.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>		Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	o	o	o	o	o	o	o	o	o	o	o	o	d	o	o	o	o	o	o	o	o	o	o	o	
1	63.0	46.1	...	...	...	...	-3.1	+1.0	...	...	...	...	1	63.3	45.5	...	...	...	...	-2.8	+0.4	...	...	...	...
2	67.8	47.9	62.1	67.5	67.3	55.8	-1.4	+2.7	+0.5	0.0	-0.1	+0.8	2	70.5	45.2	63.5	67.8	69.3	54.9	+1.3	0.0	+1.9	+0.3	+1.9	-0.1
3	70.0	51.0	61.5	68.9	69.6	59.0	-0.9	+0.9	-0.2	-0.6	+0.3	+0.5	3	72.6	50.2	62.8	71.8	70.4	58.0	+1.7	+0.1	+1.1	+2.3	+1.1	-0.5
4	75.5	51.3	65.2	72.0	72.9	61.2	-1.3	+2.8	+0.4	+0.2	-0.2	+3.7	4	78.5	49.2	65.6	72.8	74.6	60.1	+1.7	+0.7	+0.8	+1.0	+1.5	+2.6
5	75.6	52.8	69.0	74.4	74.9	60.8	-1.0	+2.9	+0.5	-0.2	+1.6	+2.2	5	77.6	51.2	69.9	73.9	74.9	59.7	+1.0	+1.3	+1.4	-0.7	+1.6	+1.1
6	77.4	54.3	66.3	74.5	73.8	64.8	-1.7	+1.2	-1.3	-1.3	-1.4	0.0	6	80.0	52.8	70.9	76.7	75.0	64.3	+0.9	-0.3	+3.3	+0.9	-0.2	-0.5
7	76.3	55.1	64.9	73.5	74.9	67.8	-2.7	+0.8	+0.3	-0.1	-1.3	+1.5	7	78.7	54.1	65.9	74.3	77.7	66.7	-0.3	-0.2	+1.3	+0.7	+1.5	+0.4
8	73.5	55.2	...	...	...	...	-3.1	0.0	...	...	...	...	8	74.2	54.8	...	...	...	...	-2.4	-0.4	...	...	...	...
9	73.0	56.1	67.7	71.3	68.9	63.8	-1.1	+2.0	+1.0	+0.4	-0.4	+0.5	9	73.5	54.7	66.6	72.3	69.8	63.5	-0.6	+0.6	-0.1	+1.4	+0.5	+0.2
10	70.5	57.1	64.2	70.3	67.2	57.6	-0.5	+1.0	+0.7	+0.6	+0.4	+1.0	10	69.6	55.7	63.7	69.2	67.4	56.6	-1.4	-0.4	+0.2	-0.5	+0.6	0.0
11	67.6	52.3	59.6	64.1	66.3	56.8	-1.4	+0.3	+0.9	+1.7	+0.6	+0.6	11	68.2	51.3	59.6	63.5	65.9	56.0	-0.8	-0.7	+0.9	+1.1	+0.2	-0.2
12	66.0	51.5	61.5	64.2	63.7	54.4	-1.6	+1.8	+0.9	0.0	+0.4	+2.1	12	69.0	50.4	60.2	64.2	64.1	53.6	+1.4	+0.7	-0.4	0.0	+0.8	+1.3
13	70.0	48.0	63.2	68.7	65.1	57.2	-3.9	+0.5	-0.4	-0.3	-0.5	+0.6	13	72.8	46.3	64.1	70.8	65.9	56.9	-1.1	-1.2	+0.5	+1.8	+0.3	+0.3
14	76.3	56.2	65.7	71.3	76.3	64.9	-1.1	0.0	+0.1	-0.5	-0.3	+0.6	14	77.6	55.9	66.6	72.3	77.3	64.5	+0.2	-0.3	+1.0	+0.5	+0.7	+0.2
15	68.8	54.5	...	...	...	...	-1.4	+0.3	...	...	...	...	15	70.4	53.6	...	...	...	...	+0.2	-0.6	...	...	...	...
16	73.1	50.4	63.9	69.0	70.9	63.2	-2.1	+0.1	-0.7	-0.6	-0.7	+0.4	16	75.4	49.0	64.9	70.2	71.7	62.9	+0.2	-1.3	+0.3	+0.6	+0.1	+0.1
17	79.0	60.1	69.9	76.1	78.8	62.0	-1.7	-0.4	-0.6	-2.2	-0.9	+0.1	17	81.3	59.8	71.5	78.9	80.3	61.0	+0.6	-0.7	+1.0	+0.6	+0.6	-0.4
18	83.4	56.8	66.3	78.0	83.4	69.4	-2.8	+0.6	-0.2	-0.7	-1.4	+0.1	18	86.4	55.7	69.0	79.1	84.9	68.8	+0.2	-0.5	+2.5	+0.4	+0.1	-0.5
19	69.4	56.1	59.1	60.1	62.3	57.9	+0.1	-1.2	-0.5	-0.7	-0.5	+0.3	19	68.9	56.4	59.7	60.9	63.9	56.9	-0.4	-0.9	+0.1	+0.1	+1.1	-0.7
20	67.6	51.1	56.9	60.8	64.8	60.9	-2.2	-0.1	-0.4	+0.6	-0.1	+0.5	20	69.5	50.3	57.4	61.6	64.9	59.9	-0.3	-0.9	+0.1	+1.4	0.0	-0.5
21	67.7	49.3	60.8	65.3	65.7	64.0	-2.5	+2.5	+0.2	-0.3	+0.2	+0.3	21	71.0	47.6	62.1	68.0	67.2	63.8	+0.8	+0.8	+1.5	+2.4	+1.7	+0.1
22	78.3	62.2	...	...	...	...	-2.7	-0.2	...	...	...	...	22	80.8	62.3	...	...	...	...	-0.2	-0.1	...	...	...	...
23	81.7	60.9	71.5	78.8	79.6	70.0	-3.0	+0.8	-0.8	-0.4	-1.1	0.0	23	84.0	59.4	74.7	81.5	80.8	69.8	-0.7	-0.7	+2.4	+2.3	+0.1	-0.2
24	72.2	60.3	66.6	69.1	72.0	64.1	-1.6	+0.2	+0.8	-0.2	-0.3	+0.1	24	73.0	60.5	65.6	70.2	72.5	62.9	-0.8	+0.4	-0.2	+0.9	+0.2	-1.1
25	72.8	53.1	66.2	72.1	68.7	59.9	-1.2	+2.7	-0.3	+1.3	-0.7	+1.0	25	74.0	51.5	65.9	70.7	69.9	59.1	0.0	+1.1	-0.6	-0.1	+0.5	+0.2
26	72.1	53.8	67.9	71.1	71.1	63.7	-1.4	+1.5	-0.8	+0.5	-0.4	+0.7	26	74.2	52.2	68.6	71.9	72.0	63.1	+0.7	-0.1	-0.1	+1.3	+0.5	+0.1
27	76.8	58.2	65.8	74.8	70.8	63.7	-2.2	+1.8	-1.2	+1.2	+0.8	+0.5	27	77.7	57.4	66.8	74.3	71.1	63.9	-1.3	+1.0	-0.2	+0.7	+1.1	+0.7
28	76.7	55.1	65.1	74.4	76.7	62.2	-1.9	-0.4	-1.4	+0.4	+0.9	+0.4	28	79.2	54.4	66.9	74.5	77.9	61.7	+0.6	-1.1	+0.4	+0.5	+2.1	-0.1
29	79.0	57.3	...	...	...	...	-4.0	+1.0	...	...	...	...	29	81.8	57.0	...	...	...	...	-1.2	+0.7	...	...	...	...
30	77.5	59.7	70.9	76.7	77.5	64.9	-0.8	+0.2	+0.3	-0.1	+1.2	+0.5	30	78.8	59.3	71.9	77.5	78.2	63.9	+0.5	-0.2	+1.3	+0.7	+1.9	-0.5
31	80.8	62.9	71.9	73.2	77.0	64.5	-3.4	+1.0	-1.1	-1.3	-0.4	+0.5	31	84.6	62.4	73.7	74.8	78.9	63.7	+0.4	+0.5	+0.7	+0.3	+1.5	-0.3
Means	73.5	54.7	65.1	70.8	71.5	62.1	-1.9	+0.9	-0.1	-0.1	-0.2	+0.7	Means	75.4	53.7	66.1	71.7	72.6	61.4	-0.1	-0.1	+0.8	+0.8	+0.8	0.0

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

AUGUST.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>		Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	78.3	54.1	66.3	75.8	77.0	62.9	-1.2	+3.7	-3.2	-0.2	-1.4	+0.8	1	80.2	52.0	69.9	77.4	78.0	62.2	+0.7	+1.6	+0.4	+1.4	-0.4	+0.1
2	83.6	58.1	73.9	77.7	81.9	71.9	-1.4	+2.0	-2.1	-0.4	-1.1	+0.4	2	85.8	57.6	76.0	79.4	83.0	71.5	+0.8	+1.5	0.0	+1.3	0.0	0.0
3	74.9	59.7	66.9	72.0	74.1	60.9	-1.0	-0.8	-1.1	-0.4	+0.1	+0.3	3	75.8	59.3	67.1	73.0	74.5	59.9	-0.1	-1.2	-0.9	+0.6	+0.5	-0.7
4	72.4	54.9	66.5	71.6	71.7	61.9	-2.2	+0.4	-0.1	-0.9	+1.0	+0.2	4	73.6	54.1	66.9	72.6	72.9	62.1	-1.0	-0.4	+0.3	+0.1	+2.2	+0.4
5	75.0	54.9	...	...	...	...	-3.6	+0.6	...	...	...	...	5	76.2	54.2	...	...	...	...	-2.4	-0.1	...	...	...	...
6	77.6	57.7	...	...	...	...	-1.9	+0.2	...	...	...	...	6	80.4	58.9	...	...	...	...	+0.9	+1.4	...	...	...	...
7	81.1	57.1	67.9	77.1	80.1	66.6	-3.4	+2.0	-1.7	-0.7	-0.2	+1.0	7	84.7	56.5	69.0	78.7	83.1	65.9	+0.2	+1.4	-0.6	+0.9	+2.8	+0.3
8	84.9	58.8	74.9	82.8	83.8	68.0	-1.8	+1.9	-0.7	+0.1	-0.4	+0.4	8	85.9	58.6	77.7	83.2	84.9	67.5	-0.8	+1.7	+2.1	+0.5	+0.7	-0.1
9	72.6	57.7	64.9	69.9	69.8	64.3	-2.4	+0.2	-1.6	-0.5	-0.4	-0.1	9	74.1	57.3	66.2	71.2	70.8	63.9	-0.9	-0.2	-0.3	+0.8	+0.6	-0.5
10	72.8	57.9	64.5	70.4	68.9	61.6	-3.1	+0.8	-0.7	+0.2	-0.1	-0.7	10	74.8	57.3	67.1	72.0	69.2	60.9	-1.1	+0.2	+1.9	+1.8	+0.2	-1.4
11	69.1	54.3	61.3	66.0	67.9	61.8	-2.3	-0.2	-0.5	-0.6	-0.3	+2.6	11	70.3	53.9	61.9	67.4	68.6	61.8	-1.1	-0.6	+0.1	+0.8	+0.4	+2.6
12	69.9	55.3	...	...	...	...	-2.1	+0.6	...	...	...	...	12	72.3	53.9	...	...	...	...	+0.3	-0.8	...	...	...	...
13	78.2	59.2	73.9	78.2	71.9	64.1	-2.9	+0.3	-0.5	-1.2	-0.7	+0.1	13	79.6	58.6	75.1	79.4	72.8	63.9	-1.5	-0.3	+0.7	0.0	+0.2	-0.1
14	72.6	57.6	62.4	67.2	69.9	60.9	+0.1	+0.6	-0.7	-0.7	-0.1	-0.1	14	73.0	56.6	63.6	68.9	70.6	60.3	+0.5	-0.4	+0.5	+1.0	+0.6	-0.7
15	69.7	55.1	62.1	64.5	66.1	57.9	-1.3	+0.3	-0.5	-0.5	-0.5	-0.1	15	70.2	54.0	63.0	64.8	66.9	58.5	-0.8	-0.8	+0.4	-0.2	+0.3	+0.5
16	67.5	52.2	62.0	63.9	66.3	57.6	-1.3	0.0	-0.8	-0.7	-0.4	+0.7	16	68.9	51.3	62.6	64.2	67.3	56.8	+0.1	-0.9	-0.2	-0.4	+0.6	-0.1
17	67.0	54.0	59.7	63.1	59.0	56.2	-1.9	0.0	-1.2	-0.5	+0.4	0.0	17	67.8	53.4	60.4	62.7	59.2	55.9	-1.1	-0.6	-0.5	-0.9	+0.6	-0.3
18	64.0	51.2	57.1	62.2	62.8	58.3	-1.1	0.0	-0.2	-0.5	+0.2	+0.6	18	64.6	50.5	57.7	63.2	62.9	57.8	-0.5	-0.7	+0.4	+0.5	+0.3	+0.1
19	66.1	51.8	...	...	...	...	-1.9	+0.3	...	...	...	...	19	68.2	51.2	...	...	...	...	+0.2	-0.3	...	...	...	...
20	73.5	50.1	63.7	66.0	69.9	65.6	-1.9	+0.4	-1.2	-0.6	-0.1	+0.1	20	74.5	49.1	65.4	66.9	70.3	65.1	-0.9	-0.6	+0.5	+0.3	+0.3	-0.4
21	79.5	61.5	68.7	75.9	77.4	66.8	-3.0	-0.5	-0.7	-1.7	0.0	+1.0	21	81.2	61.5	69.9	77.3	79.4	66.2	-1.3	-0.5	+0.5	-0.3	+2.0	+0.4
22	87.5	57.9	74.7	83.4	86.9	69.4	-0.9	+2.5	-0.3	-1.3	+0.3	+0.8	22	90.0	57.3	76.6	84.9	87.8	69.1	+1.6	+1.9	+1.6	+0.2	+1.2	+0.5
23	78.4	57.7	68.9	74.0	70.7	62.1	-2.0	+2.2	-0.2	+1.1	-0.3	+0.6	23	80.7	57.5	71.0	75.3	71.6	61.7	+0.3	+2.0	+1.9	+2.4	+0.6	+0.2
24	75.4	60.3	65.9	64.8	75.4	64.7	-1.6	0.0	-1.6	+0.2	-1.2	+0.5	24	76.9	60.4	67.9	64.9	76.0	64.1	-0.1	+0.1	+0.4	+0.3	-0.6	-0.1
25	68.3	57.7	63.4	66.0	67.2	59.8	-1.7	-0.3	-0.2	-1.2	-0.5	+1.0	25	69.1	57.6	63.6	66.9	67.9	58.7	-0.9	-0.4	0.0	-0.3	+0.2	-0.1
26	73.3	53.1	...	...	...	...	-2.7	0.0	...	...	...	...	26	75.3	52.2	...	...	...	...	-0.7	-0.9	...	...	...	...
27	77.2	59.1	68.8	75.6	76.3	59.6	-0.2	0.0	-1.0	-0.4	+0.8	0.0	27	76.6	58.5	69.6	74.9	74.9	58.5	-0.8	-0.6	-0.2	-1.1	-0.6	-1.1
28	71.0	51.9	62.1	68.8	70.0	56.0	-0.9	+3.0	-0.1	+0.3	-0.6	+1.4	28	72.5	50.1	63.0	68.3	71.0	54.8	+0.6	+1.2	+0.8	-0.2	+0.4	+0.2
29	73.0	47.3	63.7	72.0	73.0	57.9	-1.0	+3.2	-0.9	+0.5	+0.4	+0.6	29	74.8	46.2	63.9	72.1	73.9	56.9	+0.8	+2.1	-0.7	+0.6	+1.3	-0.4
30	84.7	52.1	58.1	79.9	84.7	64.5	-1.1	+1.7	+0.5	-1.4	-0.5	+1.3	30	85.9	51.6	58.5	80.3	84.9	64.9	+0.1	+1.2	+0.9	-1.0	-0.3	+1.7
31	92.8	59.5	81.7	89.9	91.9	71.3	-1.5	+3.4	-0.9	+0.1	+0.1	+2.9	31	94.6	58.8	83.3	90.2	92.9	72.2	+0.3	+2.7	+0.7	+0.4	+1.1	+3.8
Means	75.2	55.8	66.3	72.3	73.6	62.8	-1.8	+0.9	-0.9	-0.5	-0.2	+0.6	Means	76.7	55.2	67.6	73.1	74.4	62.3	-0.3	+0.3	+0.4	+0.4	+0.6	+0.2

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

SEPTEMBER.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>		Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	89.9	62.0	81.8	89.9	86.9	67.9	-2.0	+3.7	-0.6	-0.7	-1.2	+3.2	1	91.7	61.3	82.7	89.9	87.9	67.1	-0.2	+3.0	+0.3	-0.7	-0.2	+2.4
2	93.0	59.5	...	...	...	...	-0.5	+1.5	...	...	...	...	2	94.0	60.5	...	...	...	...	+0.5	+2.5	...	...	...	...
3	89.2	59.8	79.9	88.5	87.9	69.2	-1.8	+3.7	-0.9	-1.1	-0.7	+0.6	3	90.6	59.1	81.2	88.0	88.3	68.4	-0.4	+3.0	+0.4	-1.6	-0.3	-0.2
4	78.8	60.4	68.0	77.3	75.1	68.0	+0.5	+0.2	-0.3	+0.7	-0.4	+0.6	4	77.6	59.8	68.1	75.6	75.7	67.9	-0.7	-0.4	-0.2	-1.0	+0.2	+0.5
5	69.0	52.8	55.1	61.2	68.2	61.1	-2.0	+0.6	0.0	-1.0	-0.3	0.0	5	70.7	51.9	53.2	62.9	69.5	60.5	-0.3	-0.3	-1.9	+0.7	+1.0	-0.6
6	73.7	57.6	63.8	68.0	71.9	64.8	-2.3	-0.2	+0.2	-0.6	-2.1	+0.2	6	75.0	57.4	63.9	68.8	72.2	64.3	-1.0	-0.4	+0.3	+0.2	-1.8	-0.3
7	75.0	62.0	63.9	71.7	73.0	62.9	-1.0	-0.1	+0.1	+0.2	-0.5	+0.3	7	76.6	61.3	64.4	72.3	74.1	61.9	+0.6	-0.8	+0.6	+0.8	+0.6	-0.7
8	78.1	54.1	65.1	75.5	77.9	68.9	-2.2	0.0	-0.7	+0.1	+0.1	+0.1	8	80.4	53.2	66.7	75.7	78.5	69.2	+0.1	-0.9	+0.9	+0.3	+0.7	+0.4
9	69.6	58.4	...	...	...	...	-0.3	+0.1	...	...	...	...	9	70.0	58.0	...	...	...	...	+0.1	-0.3	...	...	...	...
10	65.1	48.2	57.3	62.1	63.8	54.9	-1.8	+2.0	+0.7	+0.5	+0.3	+1.2	10	65.6	46.7	56.0	61.3	63.4	53.9	-1.3	+0.5	-0.6	-0.3	-0.1	+0.2
11	69.3	42.1	56.0	67.0	69.1	53.1	-1.7	+3.0	-0.5	+0.6	+0.5	+2.5	11	70.8	40.6	55.8	66.7	70.3	52.9	-0.2	+1.5	-0.7	+0.3	+1.7	+2.3
12	70.2	47.4	61.1	65.0	67.5	58.1	-1.8	+3.1	-1.3	-1.6	-0.1	+0.6	12	71.7	47.1	62.0	65.2	67.8	58.1	-0.3	+2.8	-0.4	-1.4	+0.2	+0.6
13	68.7	56.0	62.3	65.9	66.9	57.6	-1.3	+0.7	-0.2	-0.6	-0.6	+0.2	13	70.8	55.8	62.9	66.8	67.9	57.4	+0.8	+0.5	+0.4	+0.3	+0.4	0.0
14	67.0	50.3	58.9	65.1	64.6	58.9	-1.1	-0.5	-1.2	+0.4	-0.1	+0.3	14	68.6	49.5	60.8	65.3	65.1	57.9	+0.5	-1.3	+0.7	+0.6	+0.4	-0.7
15	64.4	49.1	55.2	59.9	62.6	49.8	-1.3	-0.1	-1.0	+0.9	+1.0	+0.3	15	65.7	49.2	55.9	60.4	62.8	49.7	0.0	0.0	-0.3	+1.4	+1.2	+0.2
16	57.4	45.1	...	...	...	...	-1.4	0.0	...	...	...	...	16	57.8	44.8	...	...	...	...	-1.0	-0.3	...	...	...	...
17	64.0	50.6	52.4	60.1	61.6	57.6	-1.0	0.0	+1.1	+0.1	+0.2	+0.6	17	65.4	49.7	50.9	59.9	61.3	56.9	+0.4	-0.9	-0.4	-0.1	-0.1	-0.1
18	64.0	52.1	56.9	61.5	63.2	57.4	-1.1	-0.4	-0.7	-0.7	-0.2	+0.3	18	65.6	51.2	56.9	62.4	63.7	57.2	+0.5	-1.3	-0.7	+0.2	+0.3	+0.1
19	59.0	54.0	56.9	57.7	58.3	56.7	-0.8	+0.7	0.0	+0.2	-0.3	+1.0	19	59.2	52.7	57.0	57.4	58.1	56.5	-0.6	-0.6	+0.1	-0.1	-0.5	+0.8
20	62.0	54.1	57.9	61.6	60.8	54.7	-1.0	+0.1	-0.7	0.0	+0.2	+0.9	20	62.3	53.3	58.1	61.9	61.0	54.0	-0.7	-0.7	-0.5	+0.3	+0.4	+0.2
21	64.2	50.4	55.1	61.9	62.9	56.9	-1.1	+0.6	-0.7	+0.2	-0.4	+0.4	21	64.4	49.4	55.1	61.7	63.3	55.9	-0.9	-0.4	-0.7	0.0	0.0	-0.6
22	64.9	51.1	55.0	63.2	60.9	52.9	-0.8	+0.5	-0.6	-0.6	+0.2	+0.8	22	64.6	50.4	55.3	62.0	60.9	52.6	-1.1	-0.2	-0.3	-1.8	+0.2	+0.5
23	59.9	49.2	...	...	...	...	-0.5	+0.1	...	...	...	...	23	59.9	49.2	...	...	...	...	-0.5	+0.1	...	...	...	...
24	61.0	49.1	55.9	58.5	58.4	52.6	-1.2	+0.7	-0.4	-0.2	-0.7	+0.3	24	62.4	48.2	55.9	58.7	59.0	51.9	+0.2	-0.2	-0.4	0.0	-0.1	-0.4
25	59.6	46.1	53.6	59.6	58.1	48.6	-0.8	+2.8	-1.5	+0.2	-0.5	+1.1	25	60.7	44.1	54.9	59.0	58.5	47.1	+0.3	+0.8	-0.2	-0.4	-0.1	-0.4
26	61.6	41.1	52.8	58.5	60.3	51.7	-2.0	+3.0	-0.8	-0.4	-0.5	+1.4	26	63.8	41.1	53.7	59.9	60.9	51.9	+0.2	+3.0	+0.1	+1.0	+0.1	+1.6
27	64.5	40.4	51.7	63.9	63.9	49.0	-0.5	+3.3	+0.1	+0.4	+0.7	+3.2	27	65.5	40.0	52.3	64.0	64.2	48.8	+0.5	+2.9	+0.7	+0.5	+1.0	+3.0
28	63.9	40.8	46.3	60.0	63.9	50.8	-0.8	+2.7	-0.3	-1.6	+0.1	+3.3	28	64.7	41.0	46.9	60.7	64.4	51.8	0.0	+2.9	+0.3	-0.9	+0.6	+4.3
29	63.7	39.1	45.9	62.3	63.4	53.9	-1.4	+1.9	-0.4	+0.5	+0.8	+0.5	29	65.5	38.6	46.7	61.9	64.0	53.0	+0.4	+1.4	+0.4	+0.1	+1.4	-0.4
30	66.0	44.2	...	...	...	...	-1.1	+1.3	...	...	...	...	30	68.1	43.7	...	...	...	...	+1.0	+0.8	...	...	...	...
Means	68.6	50.9	58.8	65.8	66.8	57.5	-1.2	+1.2	-0.4	-0.2	-0.2	+1.0	Means	69.7	50.3	59.1	65.9	67.3	57.1	-0.1	+0.6	-0.1	-0.1	+0.3	+0.5

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

OCTOBER.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>		Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	o	o	o	o	o	o	o	o	o	o	o	o	d	o	o	o	o	o	o	o	o	o	o	o	
1	69.9	47.8	55.3	67.3	69.0	58.9	-1.9	+3.1	-0.5	-0.6	-0.1	+0.2	1	71.1	47.2	55.9	67.1	69.1	58.9	-0.7	+2.5	+0.1	-0.8	0.0	+0.2
2	62.6	58.4	60.8	59.9	62.6	60.8	-0.7	+0.3	-0.5	-0.3	-0.1	+0.2	2	63.2	57.3	60.7	60.0	63.1	60.4	-0.1	-0.8	-0.6	-0.2	+0.4	-0.2
3	62.0	55.5	57.7	61.1	61.8	56.5	-0.8	-0.2	0.0	+0.4	+0.1	+1.0	3	62.4	55.8	57.8	61.6	61.5	56.7	-0.4	+0.1	+0.1	+0.9	-0.2	+1.2
4	65.6	52.5	57.7	63.8	63.8	61.8	-1.1	+1.4	-0.8	-0.6	+0.1	+0.2	4	66.9	51.9	59.2	64.3	64.2	61.7	+0.2	+0.8	+0.7	-0.1	+0.5	+0.1
5	66.2	58.1	64.9	65.7	62.9	58.4	-1.2	0.0	-0.5	+1.3	-0.1	-0.2	5	67.4	58.0	67.0	66.5	63.5	58.0	0.0	-0.1	+1.6	+2.1	+0.5	-0.6
6	64.9	51.5	55.9	64.0	62.8	58.3	-1.6	+1.2	-1.7	+0.8	+0.1	+0.2	6	66.0	49.6	57.9	64.1	63.2	57.9	-0.5	-0.7	+0.3	+0.9	+0.5	-0.2
7	67.5	55.4	...	...	...	...	-1.4	+0.3	...	...	...	...	7	68.6	55.1	...	...	...	...	-0.3	0.0	...	...	...	...
8	65.1	53.9	56.0	63.5	61.5	53.9	-0.3	+0.8	-2.7	-0.3	+0.6	+0.1	8	66.9	53.1	58.7	63.8	61.7	53.1	+1.5	0.0	0.0	0.0	+0.8	-0.7
9	63.0	50.9	58.1	57.9	61.8	58.2	-2.0	+1.8	-1.0	0.0	-0.1	+0.6	9	64.5	50.2	59.3	58.2	62.0	57.6	-0.5	+1.1	+0.2	+0.3	+0.1	0.0
10	67.1	56.1	60.9	66.8	65.9	58.2	-2.0	+0.6	-0.7	-0.6	-0.1	+0.6	10	67.8	56.1	61.9	67.1	66.8	58.0	-1.3	+0.6	+0.3	-0.3	+0.8	+0.4
11	69.4	53.9	59.8	69.1	68.9	58.8	-1.5	+1.3	-0.9	+0.2	+0.3	+1.2	11	70.8	53.3	61.7	69.1	69.9	59.1	-0.1	+0.7	+1.0	+0.2	+1.3	+1.5
12	63.8	51.6	55.4	61.0	62.0	55.9	-0.6	0.0	-1.1	0.0	+0.2	+0.4	12	65.0	50.8	56.8	61.9	62.3	55.3	+0.6	-0.8	+0.3	+0.9	+0.5	-0.2
13	57.2	45.2	49.9	52.1	54.9	45.9	+1.6	0.0	+0.1	-0.5	+0.3	+0.3	13	58.5	44.8	49.9	52.8	54.3	46.1	+2.9	-0.4	+0.1	+0.2	-0.3	+0.5
14	52.6	38.9	...	...	...	...	-0.4	0.0	...	...	...	...	14	52.8	37.8	...	...	...	...	-0.2	-1.1	...	...	...	...
15	59.8	37.6	50.0	55.0	58.9	54.3	-1.0	+2.4	-0.6	-0.2	-0.4	+0.1	15	60.9	36.4	51.0	55.8	59.1	54.0	+0.1	+1.2	+0.4	+0.6	-0.2	-0.2
16	60.6	51.0	54.3	59.1	57.3	52.7	-0.6	-0.2	-0.3	+0.5	-0.2	0.0	16	61.6	50.2	54.9	59.9	57.9	52.1	+0.4	-1.0	+0.3	+1.3	+0.4	-0.6
17	60.8	49.6	58.4	54.3	57.9	53.8	-0.4	0.0	-0.3	+0.4	-0.3	+0.1	17	61.4	49.2	58.9	54.3	58.7	53.4	+0.2	-0.4	+0.2	+0.4	+0.5	-0.3
18	61.8	52.7	57.0	61.5	59.8	54.8	-1.1	+0.6	-0.8	+0.2	-0.4	+0.3	18	62.8	52.2	58.0	62.6	60.1	54.6	-0.1	+0.1	+0.2	+1.3	-0.1	+0.1
19	57.4	43.1	45.4	53.5	54.3	46.9	+0.4	-0.3	-0.5	+1.0	0.0	+0.5	19	57.3	43.0	45.4	52.9	54.2	46.6	+0.3	-0.4	-0.5	+0.4	-0.1	+0.2
20	59.2	39.4	45.9	55.8	57.9	55.1	-0.7	+2.2	-1.7	-0.3	+0.3	-0.2	20	60.1	39.1	48.0	57.0	58.3	54.9	+0.2	+1.9	+0.4	+0.9	+0.7	-0.4
21	66.1	54.7	...	...	...	...	-1.4	-0.6	...	...	...	...	21	68.1	54.6	...	...	...	...	+0.6	-0.7	...	...	...	...
22	68.1	55.8	61.8	66.0	66.0	58.4	-1.0	+0.7	-0.2	-0.6	-0.3	+0.8	22	69.9	55.8	62.0	67.0	66.9	57.9	+0.8	+0.7	0.0	+0.4	+0.6	+0.3
23	64.1	52.3	57.3	60.9	62.5	53.0	-0.9	+0.1	-0.7	-0.4	+0.3	+0.2	23	65.4	51.9	57.5	61.9	63.2	52.5	+0.4	-0.3	-0.5	+0.6	+1.0	-0.3
24	63.8	49.3	55.8	60.8	59.9	49.9	-1.0	+1.9	-1.1	+0.3	-0.2	+2.5	24	64.9	49.1	58.1	61.1	60.3	49.8	+0.1	+1.7	+1.2	+0.6	+0.2	+2.4
25	55.8	43.4	47.6	54.1	53.6	45.7	+0.8	0.0	0.0	+0.4	0.0	+1.9	25	54.8	42.7	47.8	54.6	53.0	44.1	-0.2	-0.7	+0.2	+0.9	-0.6	+0.3
26	56.1	34.4	40.6	53.7	54.6	46.9	-1.0	+2.3	-0.2	-0.8	0.0	+1.1	26	57.2	33.7	41.1	55.9	55.3	47.1	+0.1	+1.6	+0.3	+1.4	+0.7	+1.3
27	53.4	40.2	49.3	52.9	50.1	41.0	+0.1	+1.9	-0.2	+0.3	+0.2	+2.3	27	53.4	39.1	49.6	52.6	50.0	40.5	+0.1	+0.8	+0.1	0.0	+0.1	+1.8
28	54.9	39.2	...	...	...	...	+0.9	+2.0	...	...	...	...	28	54.1	38.1	...	...	...	...	+0.1	+0.9	...	...	...	...
29	52.6	39.1	41.1	51.0	50.2	44.5	-0.4	-0.4	-1.7	+0.4	-0.1	+0.4	29	53.1	38.1	42.7	50.4	50.3	44.1	+0.1	-1.4	-0.1	-0.2	0.0	0.0
30	49.3	42.4	47.0	49.0	47.8	44.9	-1.0	+1.3	+0.1	-0.7	-0.1	0.0	30	50.3	41.9	47.1	49.9	48.0	44.4	0.0	+0.8	+0.2	+0.2	+0.1	-0.5
31	51.5	41.1	44.2	47.9	50.5	49.3	-2.7	+0.5	-0.1	-0.4	-0.3	+0.7	31	54.2	40.1	43.9	48.6	51.0	49.1	0.0	-0.5	-0.4	+0.3	+0.2	+0.5
Means	61.0	48.2	53.6	58.8	59.2	53.2	-0.8	+0.8	-0.7	0.0	0.0	+0.6	Means	62.0	47.6	54.5	59.3	59.6	52.9	+0.1	+0.2	+0.2	+0.5	+0.3	+0.2

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

NOVEMBER.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>		Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	52.1	48.1	50.0	51.5	51.9	50.7	+0.3	0.0	0.0	+0.2	+0.4	+0.4	1	51.9	48.5	50.0	51.3	51.4	50.4	+0.1	+0.4	0.0	0.0	-0.1	+0.1
2	52.1	42.4	47.9	48.7	48.9	43.1	+1.7	+2.4	+0.3	+0.1	-0.8	+3.1	2	51.7	42.3	47.8	48.6	49.7	43.3	+1.3	+2.3	+0.2	0.0	0.0	+3.3
3	54.7	42.2	45.7	51.9	50.0	43.3	-1.3	+2.2	-0.6	-0.6	+0.5	+0.4	3	55.4	42.1	45.8	52.0	49.9	43.0	-0.6	+2.1	-0.5	-0.5	+0.4	+0.1
4	48.1	40.3	...	...	...	...	-0.8	+1.0	...	...	...	...	4	50.6	39.7	...	...	...	...	+1.7	+0.4	...	...	...	...
5	53.8	42.9	45.8	52.1	51.9	44.5	-0.9	-0.2	-0.8	0.0	-0.3	+3.3	5	54.9	42.1	46.0	52.2	53.7	43.9	+0.2	-1.0	-0.6	+0.1	+1.5	+2.7
6	51.0	34.6	39.7	48.0	50.9	46.9	-0.7	+1.1	+0.2	-0.8	0.0	+0.2	6	51.5	34.0	39.7	48.7	51.1	46.1	-0.2	+0.5	+0.2	-0.1	+0.2	-0.6
7	53.6	46.1	48.9	52.2	51.3	49.0	-2.4	-0.2	-0.2	-0.3	+0.5	0.0	7	54.6	45.6	48.9	52.7	51.3	48.9	-1.4	-0.7	-0.2	+0.2	+0.5	-0.1
8	51.6	48.5	51.6	51.2	50.5	50.4	+0.2	+0.4	+0.4	-0.1	-0.2	-0.2	8	51.0	48.7	50.5	50.2	49.9	49.9	-0.4	+0.6	-0.7	-1.1	-0.8	-0.7
9	53.0	45.8	49.7	52.8	50.0	46.7	-0.2	-0.1	-0.2	-0.3	+0.1	+0.3	9	53.3	44.7	49.1	52.9	49.9	46.3	+0.1	-1.2	-0.8	-0.2	0.0	-0.1
10	49.9	44.1	46.1	49.0	48.6	44.7	-0.3	+0.5	-0.3	-0.3	0.0	+0.9	10	50.6	43.3	46.0	48.9	48.5	43.8	+0.4	-0.3	-0.4	-0.4	-0.1	0.0
11	48.2	36.2	...	...	...	...	-0.9	+1.4	...	...	...	...	11	49.6	35.4	...	...	...	...	+0.5	+0.6	...	...	...	...
12	46.0	31.4	34.8	44.8	45.0	39.4	-0.5	+2.2	+0.5	0.0	-0.1	+1.3	12	46.9	30.6	34.9	44.4	45.3	37.7	+0.4	+1.4	+0.6	-0.4	+0.2	-0.4
13	43.7	34.2	39.0	43.3	43.2	42.7	0.0	+2.1	+0.7	0.0	+1.2	+1.2	13	43.8	33.7	39.1	43.5	43.3	42.8	+0.1	+1.6	+0.8	+0.2	+1.3	+1.3
14	46.3	40.7	42.8	46.3	46.2	44.5	-0.4	+0.6	+0.7	-0.1	+0.4	+0.9	14	47.0	41.5	43.0	46.7	46.3	44.7	+0.3	+1.4	+0.9	+0.3	+0.5	+1.1
15	51.8	39.9	47.0	50.7	48.9	47.9	-0.7	+1.1	0.0	+0.1	-0.2	-0.2	15	52.6	39.1	47.0	51.0	49.1	48.3	+0.1	+0.3	0.0	+0.4	0.0	+0.2
16	53.3	39.7	41.7	43.9	45.9	52.9	-0.2	-0.4	-0.3	-0.1	-0.3	0.0	16	53.2	39.1	41.7	43.9	45.9	52.9	-0.3	-1.0	-0.3	-0.1	-0.3	0.0
17	53.2	44.1	50.5	48.8	48.0	44.9	-0.3	-0.1	-0.1	+0.2	-0.5	+0.3	17	53.0	44.0	50.6	48.7	47.7	44.9	-0.5	-0.2	0.0	+0.1	-0.8	+0.3
18	46.0	37.6	...	...	...	...	-0.7	0.0	...	...	...	...	18	46.5	37.8	...	...	...	...	-0.2	+0.2	...	...	...	...
19	42.1	30.4	33.8	40.8	41.5	38.9	+0.1	+1.9	+1.2	-0.4	+0.2	+0.2	19	42.5	29.2	33.9	41.1	41.1	38.7	+0.5	+0.7	+1.3	-0.1	-0.2	0.0
20	44.4	35.5	37.5	43.1	42.6	39.9	0.0	-0.4	-1.1	-0.4	0.0	+1.5	20	44.5	35.1	37.7	43.0	42.4	40.0	+0.1	-0.8	-0.9	-0.5	-0.2	+1.6
21	56.7	39.1	52.5	54.8	56.1	54.2	-0.3	+0.8	0.0	-0.2	0.0	-0.1	21	56.8	39.1	52.4	54.9	56.2	53.9	-0.2	+0.8	-0.1	-0.1	+0.1	-0.4
22	60.4	51.2	57.2	58.9	59.5	52.0	+0.1	+0.6	-0.4	-0.3	-0.1	+0.3	22	60.5	50.9	57.4	59.2	59.5	51.8	+0.2	+0.3	-0.2	0.0	-0.1	+0.1
23	54.0	47.1	51.3	52.4	53.8	49.5	0.0	+1.2	+0.2	+0.1	+0.2	+0.7	23	54.5	47.2	50.9	52.7	53.9	49.1	+0.5	+1.3	-0.2	+0.4	+0.3	+0.3
24	51.0	44.9	47.8	50.2	50.9	48.3	0.0	+0.1	+0.4	+0.3	+0.3	+0.3	24	51.4	45.0	47.6	50.2	51.0	48.1	+0.4	+0.2	+0.2	+0.3	+0.4	+0.1
25	49.9	45.1	...	...	...	...	-0.1	0.0	...	...	...	...	25	50.1	45.2	...	...	...	...	+0.1	+0.1	...	...	...	...
26	48.7	39.7	40.5	41.8	45.3	48.7	+0.2	-0.3	+0.5	+0.5	+0.1	+0.2	26	48.7	39.5	40.1	41.7	45.1	48.7	+0.2	-0.5	+0.1	+0.4	-0.1	+0.2
27	56.0	45.5	52.9	55.9	52.4	46.8	0.0	+0.2	0.0	+0.3	-0.1	+0.3	27	56.0	45.3	52.9	55.9	52.4	46.6	0.0	0.0	0.0	+0.3	-0.1	+0.1
28	52.1	39.7	47.7	51.0	51.9	50.3	-0.3	+0.6	+0.1	+0.2	+0.1	-0.3	28	52.6	38.9	47.6	51.1	51.9	50.1	+0.2	-0.2	0.0	+0.3	+0.1	-0.5
29	54.6	49.7	53.0	54.3	53.9	54.6	-0.2	-0.2	-0.3	+0.1	+0.3	-0.2	29	54.4	49.7	53.0	54.3	53.7	54.4	-0.4	-0.2	-0.3	+0.1	+0.1	-0.4
30	55.1	43.0	52.1	51.7	48.2	43.0	+0.1	+0.9	+0.4	+0.5	+0.1	+0.4	30	55.1	42.1	52.0	51.4	48.0	43.0	+0.1	0.0	+0.3	+0.2	-0.1	+0.4
Means	51.1	41.7	46.4	49.6	49.5	46.8	-0.3	+0.6	0.0	-0.1	+0.1	+0.6	Means	51.5	41.3	46.4	49.7	49.5	46.6	+0.1	+0.3	0.0	0.0	+0.1	+0.3



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

DECEMBER.

Days of the Month.	Readings of Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.						Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 ft. above the ground.						Excess above readings of the Thermometers on the ordinary stand, 4 ft. above the ground.					
	Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>		Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	
1	45.0	38.2	42.9	44.4	43.9	39.7	+0.2	-0.3	+0.4	+0.1	+0.3	+1.4	1	45.3	37.6	42.8	44.2	43.8	39.1	+0.5	-0.9	+0.3	-0.1	+0.2	+0.8
2	51.6	33.4	...	...	...	...	0.0	+0.1	...	...	...	...	2	51.7	33.0	...	...	...	...	+0.1	-0.3	...	...	...	...
3	54.5	47.6	50.4	53.9	50.2	49.7	+0.2	-0.5	0.0	-0.1	+0.3	+0.3	3	55.0	48.0	50.3	53.9	49.9	49.6	+0.7	-0.1	-0.1	-0.1	0.0	+0.2
4	54.2	46.1	50.9	53.2	53.9	50.9	+0.2	-0.1	-0.4	-0.2	+0.3	+0.7	4	54.1	46.1	50.9	53.2	53.9	50.7	+0.1	-0.1	-0.4	-0.2	+0.3	+0.5
5	52.5	39.1	46.9	43.0	43.9	39.9	-0.2	-0.1	-0.2	-0.2	+0.5	+0.1	5	52.6	39.8	47.2	43.2	44.2	39.8	-0.1	+0.6	+0.1	0.0	+0.8	0.0
6	46.4	37.3	38.8	43.9	44.4	40.4	-0.4	+0.1	+0.2	-0.6	+0.2	+0.8	6	46.6	36.7	38.8	43.9	43.9	39.4	-0.2	-0.5	+0.2	-0.6	-0.3	-0.2
7	41.7	32.1	37.8	41.0	40.1	32.9	-1.0	+2.2	+0.3	-1.4	-0.4	+3.0	7	43.9	31.2	37.0	41.2	40.7	32.6	+1.2	+1.3	-0.5	-1.2	+0.2	+2.7
8	44.1	30.5	38.7	41.2	41.0	43.8	-0.1	+2.4	0.0	-0.3	+0.2	+0.2	8	44.4	29.4	38.7	40.9	40.8	43.5	+0.2	+1.3	0.0	-0.6	0.0	-0.1
9	44.0	34.1	...	...	...	...	0.0	0.0	...	...	...	...	9	44.2	34.0	...	...	...	...	+0.2	-0.1	...	...	...	...
10	36.0	30.3	31.6	34.9	35.4	30.7	+0.2	+1.0	+0.1	-0.4	+0.3	+1.1	10	35.9	29.5	31.3	35.0	35.7	30.3	+0.1	+0.2	-0.2	-0.3	+0.6	+0.7
11	44.5	26.6	33.8	38.5	40.1	44.5	+0.2	-0.3	-0.3	0.0	+0.4	+0.2	11	44.6	25.7	33.9	38.8	40.5	44.5	+0.3	-1.2	-0.2	+0.3	+0.8	+0.2
12	46.8	35.6	44.6	43.1	38.9	38.3	0.0	-0.5	-0.7	-0.5	-0.7	-0.1	12	46.8	35.3	44.6	43.2	38.9	37.3	0.0	-0.8	-0.7	-0.4	-0.7	-1.1
13	39.8	33.2	37.6	37.8	38.6	37.8	0.0	-0.3	+0.5	0.0	-0.7	+1.1	13	39.6	32.4	37.6	38.1	38.7	37.9	-0.2	-1.1	+0.5	+0.3	-0.6	+1.2
14	39.0	32.3	37.5	38.1	38.3	35.2	+0.3	-0.3	+0.1	+0.4	+0.6	+0.1	14	38.8	32.3	37.4	38.0	38.0	34.9	+0.1	-0.3	0.0	+0.3	+0.3	-0.2
15	36.6	31.1	32.7	36.2	36.2	33.9	0.0	+1.0	-0.6	-0.4	+0.1	+1.6	15	36.6	30.1	32.6	36.0	36.6	34.9	0.0	0.0	-0.7	-0.6	+0.5	+2.6
16	44.1	31.1	...	...	...	...	+0.2	-0.3	...	...	...	...	16	43.9	34.0	...	...	...	...	0.0	+2.6	...	...	...	...
17	47.3	44.2	45.9	46.9	47.0	45.9	-0.1	+1.1	0.0	-0.5	-0.3	-0.3	17	47.9	43.8	45.9	46.9	47.9	45.9	+0.5	+0.7	0.0	-0.5	+0.6	-0.3
18	48.8	43.8	45.3	47.4	48.0	44.3	-0.6	-0.1	-0.3	-0.4	+0.1	+0.3	18	49.2	44.0	45.4	47.5	47.9	44.2	-0.2	+0.1	-0.2	-0.3	0.0	+0.2
19	44.4	37.8	40.0	40.9	41.6	38.3	+0.1	-0.3	+0.2	-0.3	-0.1	0.0	19	44.6	37.3	39.9	41.0	41.9	38.1	+0.3	-0.8	+0.1	-0.2	+0.2	-0.2
20	39.5	33.3	34.9	35.7	37.3	39.4	0.0	0.0	+0.2	+0.1	0.0	+0.1	20	39.1	33.1	34.7	35.7	37.5	38.9	-0.4	-0.2	0.0	+0.1	+0.2	-0.4
21	39.5	31.1	36.3	34.4	33.7	31.6	-0.1	+0.4	0.0	-0.1	+0.2	+0.4	21	39.4	29.7	36.6	34.1	33.7	31.5	-0.2	-1.0	+0.3	-0.4	+0.2	+0.3
22	36.8	28.9	32.3	35.1	36.5	29.3	0.0	0.0	+0.4	-0.7	+0.2	-0.1	22	36.6	28.8	31.7	34.9	36.3	29.1	-0.2	-0.1	-0.2	-0.9	0.0	-0.3
23	29.3	27.0	...	...	...	...	-0.2	+0.7	...	...	...	...	23	29.2	26.5	...	...	...	...	-0.3	+0.2	...	...	...	...
24	40.8	26.2	32.6	35.6	37.8	40.4	-0.3	+1.4	-0.1	-0.1	-0.2	-0.4	24	40.6	24.0	32.6	35.8	37.7	40.4	-0.5	-0.8	-0.1	+0.1	-0.3	-0.4
25	42.9	30.4	...	...	...	...	0.0	-0.6	...	...	...	...	25	43.2	30.0	...	...	...	...	+0.3	-1.0	...	...	...	...
26	34.0	25.1	...	...	...	...	-0.3	0.0	...	...	...	...	26	33.6	25.2	...	...	...	...	-0.7	+0.1	...	...	...	...
27	36.8	21.9	33.2	33.2	33.0	25.0	+2.2	-0.4	+0.2	-0.2	+0.2	+0.4	27	34.6	21.3	33.5	33.3	32.9	24.9	0.0	-1.0	+0.5	-0.1	+0.1	+0.3
28	35.1	24.1	31.7	32.9	34.5	34.9	-0.3	-0.1	-0.6	-0.6	0.0	-0.1	28	35.5	23.7	31.8	33.1	34.3	34.7	+0.1	-0.5	-0.5	-0.4	-0.2	-0.3
29	35.5	27.1	33.4	34.2	32.6	29.1	+0.3	+0.2	+0.5	-0.3	-0.1	-0.1	29	35.1	27.0	32.9	33.7	32.7	28.9	-0.1	+0.1	0.0	-0.8	0.0	-0.3
30	35.3	20.1	...	...	...	...	-0.1	+0.3	...	...	...	...	30	35.6	19.6	...	...	...	...	+0.2	-0.2	...	...	...	...
31	42.9	33.2	35.2	38.1	39.6	41.6	-0.1	-1.1	+0.3	-0.8	-0.2	-0.2	31	42.9	33.3	35.1	38.9	39.9	41.9	-0.1	-1.0	+0.2	0.0	+0.1	+0.1
Means	42.2	32.7	38.5	40.2	40.3	38.2	0.0	+0.2	0.0	-0.3	+0.1	+0.4	Means	42.3	32.3	38.5	40.2	40.3	38.0	+0.1	-0.2	-0.1	-0.3	+0.1	+0.2



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

Table with columns for Days of the Month, Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, Excess above readings of the Thermometer on the ordinary stand, and sub-columns for 9h, Noon, 15h, 21h for each month (MAY, JUNE, JULY, AUGUST).



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 1906.

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

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

JANUARY.

Table with 20 columns: Days of the Month, Readings of Dry-Bulb Thermometers in a Stevenson's Screen, Excess above readings of Thermometers on the ordinary stand, Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, and Excess above readings of the Thermometer on the ordinary stand. Rows include days 1-31 and a Means row.

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

FEBRUARY.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	46.2	41.1	43.7	45.9	45.0	43.0	0.0	-1.2	+0.1	+0.1	+0.2	+0.2	42.8	44.9	42.8	39.1	+0.1	+0.1	0.0	0.0
2	48.6	40.1	43.1	47.0	47.9	42.4	-0.8	+0.8	+0.3	-0.2	+0.4	+0.1	40.9	41.8	41.9	38.8	+0.3	0.0	0.0	+0.1
3	42.5	36.5	40.3	40.6	40.9	37.2	0.0	+0.4	0.0	+0.1	0.0	+0.3	38.9	37.0	34.5	32.9	0.0	0.0	0.0	+0.2
4	39.3	33.7	...	...	...	...	-0.2	-0.6	...	...	...	...	...	...	...	...	...	...	...	...
5	40.5	32.4	33.3	38.4	39.0	34.4	-0.5	+0.3	-0.1	-0.2	+0.3	+0.1	32.6	36.0	35.7	31.9	-0.2	0.0	+0.3	+0.2
6	36.3	33.1	33.6	35.6	35.4	34.8	+0.3	+0.9	+0.2	+0.4	+0.1	+0.2	30.7	31.8	31.3	32.3	+0.2	+0.4	+0.1	-0.1
7	43.6	33.1	35.4	41.4	43.5	37.1	-0.6	0.0	0.0	-0.2	0.0	+0.3	34.3	38.1	39.0	36.0	0.0	0.0	0.0	+0.3
8	45.6	34.2	40.8	44.1	42.6	34.5	-0.4	+0.9	+0.1	-0.1	-0.5	+0.2	38.2	41.3	42.0	32.6	0.0	-0.2	-0.8	+0.1
9	37.3	30.8	33.0	36.3	35.5	32.6	+0.6	+0.4	+0.3	+0.7	-0.1	+0.8	30.1	31.8	31.2	29.0	+0.1	+0.4	-0.5	0.0
10	49.6	31.1	42.6	47.6	47.1	41.9	-0.1	+0.1	0.0	+0.1	0.0	+0.3	42.0	45.2	45.4	39.5	+0.1	-0.1	0.0	+0.1
11	43.3	33.8	...	...	...	...	-0.7	-0.5	...	...	...	...	...	...	...	...	...	...	...	...
12	41.0	30.9	32.2	36.2	40.6	31.4	+0.3	+0.5	+0.1	+0.3	+0.4	+0.7	30.3	33.7	35.8	30.0	+0.1	+0.2	-0.3	0.0
13	40.6	27.7	33.8	39.4	35.1	34.2	-0.1	+0.6	+0.2	0.0	-0.3	+0.1	32.0	34.4	34.0	33.2	+0.1	-0.2	-0.1	-0.1
14	46.1	30.5	35.6	43.9	45.5	36.2	-0.1	+0.4	+1.0	+1.2	+0.1	+0.4	33.3	39.1	40.2	34.9	+1.0	+0.6	-0.4	+0.3
15	42.6	33.2	40.0	40.7	41.3	33.2	-0.6	+0.8	-0.2	0.0	+0.1	+0.8	38.9	38.6	38.3	32.1	-0.2	-0.1	-0.2	+0.6
16	50.1	33.2	43.9	47.6	49.3	46.4	-0.6	+0.8	+0.1	0.0	-0.2	-0.2	43.0	45.0	43.0	45.3	+0.2	-0.1	-0.1	-0.2
17	48.0	39.2	41.8	41.9	42.0	39.7	0.0	+0.1	-0.2	-0.2	+0.1	+0.1	40.9	41.0	41.0	37.8	-0.3	-0.2	-0.2	+0.2
18	41.5	38.6	...	...	...	...	+0.2	+0.1	...	...	...	...	...	...	...	...	...	...	...	...
19	45.0	39.1	43.0	45.0	44.1	39.2	-1.2	+0.8	+0.2	-0.2	-0.2	-0.1	40.4	41.9	42.4	37.8	-0.3	-0.6	-0.3	-0.1
20	44.7	36.1	38.1	42.4	43.6	38.6	-0.7	+0.5	+0.2	-0.1	-0.1	0.0	34.9	37.0	37.9	35.0	+0.1	-0.3	0.0	+0.2
21	43.0	30.3	33.9	41.0	43.0	30.4	-0.5	+0.7	+0.4	-0.1	+0.3	+0.8	32.9	36.1	37.0	29.3	+0.7	-0.2	+0.2	+0.6
22	43.5	27.1	32.6	42.7	41.9	36.4	-1.1	+1.0	+0.8	+0.9	0.0	+0.1	31.0	37.6	37.2	34.0	+0.3	+0.9	-0.1	+0.2
23	38.3	33.7	34.4	37.0	37.4	35.0	+0.1	-0.1	0.0	-0.1	-0.1	+0.3	33.0	34.8	34.3	32.7	-0.1	+0.1	+0.1	+0.2
24	42.2	29.1	30.4	39.8	41.0	37.2	-0.4	+1.1	0.0	+1.1	+0.3	+0.1	29.8	36.3	36.0	36.0	0.0	+0.6	+0.1	+0.2
25	48.9	36.1	...	...	...	...	-0.8	+0.6	...	...	...	...	...	...	...	...	...	...	...	...
26	48.9	38.4	42.6	46.4	47.7	42.9	-1.2	+0.7	0.0	-0.2	-0.3	+0.3	40.1	42.8	43.4	41.9	-0.1	-0.3	-0.9	+0.2
27	46.4	37.8	43.2	45.0	43.9	37.8	-0.6	0.0	-0.2	+0.1	+0.2	0.0	41.4	40.6	39.1	36.3	-0.3	-0.1	0.0	0.0
28	42.6	33.9	35.9	40.0	42.2	42.0	-0.4	+0.4	+0.2	-0.1	0.0	0.0	33.3	34.8	36.1	40.0	-0.1	-0.3	0.0	+0.2
Means	43.8	34.1	37.8	41.9	42.3	37.4	-0.4	+0.4	+0.1	+0.1	0.0	+0.2	36.1	38.4	38.3	35.3	+0.1	0.0	-0.1	+0.1

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

MARCH.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
1	49.8	41.9	45.0	46.3	47.0	49.8	+0.2	+0.5	+0.3	-0.3	0.0	+0.2	42.4	44.3	44.0	48.0	+0.1	-0.3	0.0	+0.2
2	50.0	36.9	49.5	46.1	38.8	36.9	-0.1	+0.5	-0.1	-0.1	+0.2	+0.4	48.5	44.3	37.5	33.7	-0.2	-0.2	+0.2	+0.6
3	48.7	28.6	34.6	44.9	48.7	39.4	-0.2	+1.2	+0.7	+0.3	+1.0	+0.6	32.1	39.2	41.1	36.7	+0.4	+0.1	+0.5	+0.2
4	58.5	37.1	...	...	...	...	+0.3	+0.8	...	...	...	...	...	...	...	...	...	...	...	...
5	51.3	37.4	45.0	48.6	50.5	48.5	-1.0	+1.2	+0.4	-0.4	-0.1	+0.9	42.0	45.6	47.2	46.4	+0.2	-0.4	-0.4	+0.5
6	63.9	47.1	50.0	60.9	62.7	50.0	-0.3	+0.9	-0.5	+1.8	+0.1	+1.0	48.2	53.8	53.4	47.4	+0.3	+0.6	+0.3	+0.5
7	65.0	44.3	55.2	63.0	64.0	49.1	0.0	+1.8	+0.8	0.0	-0.1	+0.4	49.3	53.7	52.5	45.9	+0.5	-0.1	-0.7	+0.2
8	50.5	45.0	48.0	49.0	49.9	45.7	-0.4	+0.4	-0.1	-0.4	-0.1	+0.1	45.8	47.5	48.8	42.7	0.0	-0.2	-0.1	0.0
9	47.4	39.8	43.9	45.9	47.0	42.3	-0.7	+0.5	+0.1	-0.1	0.0	+0.1	38.8	40.0	39.9	37.7	+0.1	0.0	-0.1	0.0
10	47.2	35.2	40.9	46.8	46.1	40.0	-1.6	+0.7	-0.1	-0.2	-0.2	0.0	38.5	41.0	41.8	39.4	-0.2	-0.5	-0.3	-0.2
11	51.7	40.0	...	...	...	...	-1.0	+0.3	...	...	...	...	...	...	...	...	...	...	...	...
12	44.3	31.8	38.7	36.0	38.2	31.9	+0.3	+0.7	0.0	-0.1	0.0	+0.4	35.0	34.0	32.5	27.5	-0.1	+0.1	-0.2	+0.4
13	37.7	29.2	30.0	34.8	37.7	32.3	-0.4	+0.1	+0.2	-0.2	+0.1	+0.1	29.0	30.2	31.1	31.7	-0.1	-0.1	+0.2	+0.1
14	42.1	31.2	34.7	41.7	42.1	38.1	-0.9	+0.1	+0.5	-0.1	+0.3	+0.2	32.8	36.0	36.1	35.7	+0.3	-0.2	+0.5	-0.1
15	55.3	38.0	50.4	54.2	51.0	52.0	+0.2	+0.5	-0.2	0.0	0.0	-0.5	48.4	49.5	48.0	49.1	-0.3	0.0	-0.2	0.0
16	55.2	48.8	51.0	54.5	55.0	51.4	-0.1	+0.7	-0.4	-0.1	+0.1	-0.2	49.8	51.5	51.9	49.4	-0.2	-0.2	0.0	-0.2
17	63.6	44.5	51.1	60.2	63.0	50.1	-0.3	+0.4	-0.2	+0.3	-0.1	+0.5	46.3	49.3	53.0	44.7	-0.1	-0.2	-0.4	+0.3
18	51.4	43.1	...	...	...	...	+0.4	+0.5	...	...	...	...	...	...	...	...	...	...	...	...
19	43.8	36.6	39.7	42.5	42.0	38.0	-0.8	+0.3	+0.1	-0.2	+0.8	+0.2	36.3	37.7	39.0	36.2	-0.1	-0.2	+0.2	-0.1
20	45.3	36.1	38.7	44.0	38.2	40.1	-1.0	+0.3	+0.1	-0.6	-0.3	-0.2	36.0	38.6	37.1	39.0	+0.1	-0.3	0.0	0.0
21	42.5	33.3	39.1	42.2	40.0	34.0	-0.7	+0.2	-0.1	-0.4	+1.2	+0.7	36.1	39.0	36.0	32.0	0.0	-0.6	+0.5	+0.4
22	40.8	30.9	36.0	38.6	39.9	33.2	-1.0	+0.4	0.0	+0.8	-0.5	+0.3	32.4	33.3	35.0	30.4	+0.4	+0.6	0.0	+0.1
23	39.5	29.1	34.8	35.9	36.9	33.5	-0.5	+0.7	-0.1	+0.3	+0.1	+0.1	31.0	31.8	33.2	32.4	+0.2	+0.2	+0.1	-0.1
24	39.6	31.0	33.0	33.7	39.1	35.7	-0.2	+0.2	0.0	+0.1	-0.1	+0.1	31.9	33.0	36.7	34.1	+0.1	+0.1	0.0	0.0
25	41.1	32.9	...	...	...	...	-0.9	+0.7	...	...	...	...	...	...	...	...	...	...	...	...
26	41.9	30.3	34.2	38.7	36.3	34.5	-2.1	+0.1	-0.1	0.0	-0.7	+0.1	32.4	35.0	34.8	32.5	-0.1	+0.1	-0.1	0.0
27	43.5	32.9	35.3	39.2	42.0	37.2	-0.8	+0.1	-0.1	+0.2	-0.4	-0.2	30.8	33.6	37.0	33.2	0.0	-0.1	-0.2	-0.2
28	45.2	32.0	40.0	43.4	42.0	35.4	-1.2	+0.2	+0.4	+0.6	0.0	+0.7	35.0	37.2	36.0	33.9	+0.3	+0.3	+0.2	+0.6
29	45.1	35.4	40.3	43.6	42.0	36.2	-1.4	+0.7	+0.1	-0.1	-0.5	-0.1	35.7	37.0	37.0	33.0	+0.4	+0.3	+0.3	+0.3
30	46.9	30.0	35.3	40.8	46.0	44.0	-0.1	+0.9	-0.2	+0.1	+0.2	+0.2	33.0	36.4	39.1	39.6	+0.3	+0.2	-0.1	+0.1
31	51.7	38.8	44.2	48.9	50.3	44.7	-0.4	+0.5	-0.1	-0.1	-0.2	+1.0	41.0	44.1	44.3	40.0	-0.2	0.0	+0.2	+0.7
Means	48.4	36.4	41.4	45.3	45.8	40.8	-0.5	+0.6	+0.1	0.0	0.0	+0.3	38.5	40.6	40.9	38.2	+0.1	0.0	0.0	+0.2

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

APRIL.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	50.6	39.0	...	...	...	...	-0.6	+0.7	...	...	...	...	...	...	...	...	...	...	...	...
2	46.6	34.0	41.1	44.0	45.7	41.0	-1.5	+0.8	+0.3	-0.2	+0.1	+0.2	36.9	39.3	39.0	38.2	-0.2	-0.2	+0.2	+0.2
3	58.1	34.7	47.4	56.9	53.9	41.6	-1.2	+0.5	+0.8	+0.5	-0.1	0.0	42.2	47.2	45.4	39.9	+0.5	+0.5	+0.6	+0.3
4	55.2	34.5	50.0	55.1	55.0	42.4	-1.3	+1.0	+0.1	+0.8	+0.5	+0.6	42.1	42.7	42.5	38.0	+0.4	+0.6	+0.5	+1.3
5	60.2	37.8	53.1	60.0	59.0	45.2	-1.4	+1.5	-0.4	+0.7	-0.6	+0.3	45.0	48.6	49.3	41.2	-0.6	+1.0	-0.1	+0.5
6	58.8	37.2	50.5	57.0	58.3	42.3	-0.8	+0.6	+0.4	+0.3	+0.2	+0.3	43.8	47.0	47.2	38.8	+0.4	+0.6	-0.1	+0.5
7	59.6	32.1	48.3	57.9	59.6	45.6	-1.3	+1.8	+0.6	+0.7	+1.0	+0.6	43.2	48.2	49.1	42.0	+0.4	+0.6	+0.9	+1.1
8	58.6	41.0	...	...	...	...	-0.9	+1.3	...	...	...	...	...	...	...	...	...	...	...	...
9	59.4	40.3	47.1	57.0	59.1	43.6	-0.7	+0.2	-0.4	+0.3	+0.5	+0.1	43.1	47.6	48.1	40.0	+0.1	+0.3	+0.3	+0.2
10	62.4	36.1	49.7	60.8	62.1	49.0	-0.8	+0.5	+0.2	+0.1	-0.4	+0.4	44.8	51.3	51.0	45.7	-0.4	-0.1	-0.1	+0.4
11	68.3	39.2	51.2	65.0	67.4	50.4	-1.0	+0.2	+0.6	-0.3	+0.7	+0.6	46.3	54.4	51.9	46.4	+0.6	+0.3	+0.2	+0.1
12	72.6	41.0	61.4	72.6	70.5	54.7	-0.6	+0.9	+1.1	+0.1	+0.2	+0.8	53.2	56.2	54.0	48.2	+0.6	-1.4	-0.8	-0.2
13	70.6	48.4	...	...	...	...	-2.4	+1.1	...	...	...	...	...	...	...	...	...	...	...	...
14	56.5	41.0	44.1	50.1	51.1	41.0	+0.3	+0.2	+0.1	0.0	-0.3	0.0	41.1	41.9	41.1	36.2	-0.2	0.0	-0.6	+0.1
15	57.5	29.3	...	...	...	...	-1.3	+1.0	...	...	...	...	...	...	...	...	...	...	...	...
16	65.1	31.2	...	...	...	...	-0.9	+1.9	...	...	...	...	...	...	...	...	...	...	...	...
17	59.3	38.1	53.0	57.8	56.0	42.6	-1.0	+0.7	+0.6	0.0	-0.6	+0.1	47.0	49.3	50.0	40.7	+0.4	-0.2	-0.6	+0.2
18	46.6	40.0	41.8	44.0	46.0	41.1	-0.5	+0.2	+0.1	-0.1	-0.2	-0.2	39.4	38.5	38.2	36.0	-0.1	-0.1	-0.4	-0.3
19	48.4	36.8	42.1	47.4	46.6	39.9	-1.2	-0.3	0.0	-0.2	-0.2	+0.2	37.8	40.0	39.7	37.0	0.0	-0.4	-0.1	+0.3
20	55.1	29.2	44.2	49.6	54.1	48.8	-1.3	+1.1	-0.3	-0.1	-0.6	+0.5	38.1	44.1	47.7	46.5	-0.5	-0.3	-0.4	+0.1
21	61.5	42.4	53.3	59.6	57.0	50.0	-1.5	+0.4	-0.3	0.0	-0.1	+0.4	48.0	51.2	49.4	47.0	-0.2	-0.1	-0.7	+0.2
22	55.2	42.7	...	...	...	...	-1.5	+0.5	...	...	...	...	...	...	...	...	...	...	...	...
23	50.4	37.3	44.4	48.0	47.2	39.1	-1.6	+0.2	-0.1	-0.6	-0.4	+0.3	39.6	39.9	39.2	36.7	-0.1	-0.2	-0.5	+0.2
24	46.6	31.5	34.7	40.9	45.0	38.0	-1.4	+1.2	+0.1	+0.1	+0.7	+0.3	34.2	38.9	40.0	36.7	-0.1	-0.2	+0.7	+0.1
25	48.5	36.1	42.0	48.0	46.4	38.0	-1.1	+0.7	+0.4	-0.3	+0.7	0.0	37.0	39.6	39.0	35.0	-0.5	-0.2	+0.1	+0.1
26	50.1	29.7	41.2	49.5	49.0	38.9	-1.0	+0.5	-0.7	-0.2	+0.4	+0.1	37.0	39.9	39.1	35.4	-0.8	-0.6	+0.1	0.0
27	55.6	32.5	43.3	50.9	54.9	46.0	-0.5	+0.3	-0.3	-0.2	-0.3	+0.4	37.8	42.1	42.2	40.6	-0.5	-0.3	-0.6	+0.1
28	49.8	38.3	44.4	48.1	49.5	38.3	-1.6	+0.4	-0.3	+0.1	-0.4	+0.4	42.4	40.8	41.9	36.0	-0.2	+0.1	-0.2	+0.3
29	49.9	31.5	...	...	...	...	-1.6	+0.7	...	...	...	...	...	...	...	...	...	...	...	...
30	50.4	34.2	43.8	49.3	47.0	44.0	-1.3	+1.1	-0.2	+0.1	+0.3	+0.3	41.2	43.7	42.0	40.2	-0.4	-0.1	+0.3	0.0
Means	56.3	36.6	46.6	53.5	53.9	43.5	-1.1	+0.7	+0.1	+0.1	0.0	+0.3	41.8	44.9	44.7	40.1	-0.1	0.0	-0.1	+0.3



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

MAY.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	50.8	34.2	42.6	47.5	47.2	41.7	-0.6	+0.5	-0.7	+0.2	0.0	+0.8	40.0	41.2	41.3	39.0	-0.7	+0.4	+0.3	+0.6
2	49.8	35.7	47.1	46.0	46.0	49.8	-0.5	+1.1	-0.5	-0.7	-0.3	+0.1	42.6	43.0	44.0	49.2	-0.3	-1.0	-0.2	-0.2
3	59.8	47.6	53.2	59.0	56.0	49.4	-2.5	+0.5	-0.4	-1.6	-0.8	+0.1	47.9	50.5	50.8	47.6	-0.1	-1.5	-0.8	+0.1
4	60.8	47.6	53.7	56.7	58.2	50.7	-1.4	+0.7	-0.1	-0.9	+0.1	+0.7	49.1	49.3	51.1	47.3	0.0	-0.9	+0.2	+0.5
5	61.3	41.1	56.0	59.1	56.9	48.7	-1.9	+0.8	+0.6	-0.7	-0.9	+0.1	48.1	49.2	48.2	45.0	+0.5	-0.5	-1.1	+0.1
6	55.0	48.4	...	...	...	...	-1.6	+0.3	...	...	...	...	...	...	...	...	...	...	...	...
7	66.6	51.9	55.7	62.9	65.9	53.3	-4.4	+0.3	-0.7	-1.2	-0.9	+1.6	53.7	58.4	59.5	52.0	-0.2	-1.0	-1.1	+0.6
8	75.6	42.9	64.5	72.5	75.1	56.2	-0.6	+0.6	-0.8	+0.1	-0.3	-0.2	55.8	59.7	62.5	53.6	-0.7	-0.4	-0.2	-0.1
9	62.4	47.5	57.2	62.0	57.3	51.0	-1.1	+0.4	-0.5	-0.2	-0.1	0.0	53.6	56.5	55.4	49.6	-0.4	0.0	-0.1	-0.1
10	51.4	44.4	45.2	48.7	49.3	46.0	+0.1	+0.1	+0.3	+0.1	+0.3	+0.1	43.8	46.0	46.0	44.7	+0.3	+0.2	+0.3	0.0
11	58.0	42.6	53.1	53.9	55.4	49.4	-1.1	+0.6	-1.5	-0.9	-0.3	0.0	47.7	48.5	49.8	48.0	-1.3	-0.8	-0.1	-0.1
12	68.8	47.2	64.0	68.0	68.0	55.2	-2.2	+0.7	0.0	-1.2	0.0	+0.5	56.7	58.1	58.1	52.7	0.0	-1.5	-0.2	+0.1
13	73.6	48.4	...	...	...	...	-1.4	+1.2	...	...	...	...	...	...	...	...	...	...	...	...
14	66.5	46.6	58.2	64.1	61.0	46.7	-1.5	+0.4	-0.5	-1.5	-0.3	0.0	51.0	54.1	51.9	43.2	-0.2	-0.2	0.0	-0.3
15	59.0	43.0	45.1	52.9	58.9	51.8	-1.4	+0.1	-0.4	-0.9	-1.0	+0.1	41.0	45.2	47.7	45.4	-0.5	-0.6	+0.1	+0.1
16	52.2	43.1	50.0	49.0	51.1	44.0	-2.1	-0.1	-0.7	-1.6	-0.5	0.0	43.7	47.1	46.7	42.0	-0.4	-1.3	-0.2	+0.1
17	48.0	41.1	42.0	46.5	46.9	42.8	-1.0	0.0	+0.3	-0.3	+0.2	+0.8	39.0	41.5	41.3	40.9	+0.1	-0.2	+0.5	+0.3
18	56.5	33.0	51.5	54.6	56.5	45.4	-0.8	+1.4	+0.4	-0.6	+1.0	+0.9	44.6	47.0	47.9	43.9	+0.2	-0.3	+1.2	+1.0
19	62.7	40.6	50.7	57.9	61.2	54.8	-1.5	+0.8	-0.7	-0.7	0.0	+0.2	47.1	50.7	51.4	48.9	-0.5	-0.3	0.0	+0.2
20	54.8	43.1	...	...	...	...	+0.2	0.0	...	...	...	...	...	...	...	...	...	...	...	...
21	54.6	42.2	49.7	53.1	52.9	46.9	-1.0	-0.1	0.0	+0.1	0.0	0.0	45.2	46.0	46.1	43.9	-0.5	+0.2	0.0	+0.2
22	56.2	43.4	49.7	53.2	54.9	48.8	-0.8	+0.3	0.0	+0.1	-0.1	+0.1	45.0	45.0	46.9	45.1	-0.3	-0.3	+0.4	0.0
23	69.0	46.5	62.1	66.1	65.7	58.5	-2.0	+0.4	-0.4	-0.6	-0.3	-0.1	55.4	56.0	55.6	55.1	-1.0	-0.8	-0.5	+0.1
24	63.9	51.8	62.0	61.0	60.4	52.1	-2.3	+0.1	-0.4	-0.3	-1.2	0.0	55.4	54.7	53.5	49.6	-0.1	-0.2	-1.2	-0.1
25	61.7	44.9	54.8	59.3	57.9	50.0	-2.3	+0.8	-1.7	-1.3	-0.7	+0.5	49.0	49.3	49.0	45.4	-1.6	-1.0	-0.8	+0.2
26	58.6	46.5	50.3	51.9	57.8	55.0	-1.4	+0.6	-0.4	-0.7	-0.2	+0.3	48.9	51.1	56.0	54.0	-0.1	-0.7	-0.5	0.0
27	64.6	52.7	...	...	...	...	-2.0	+0.2	...	...	...	...	...	...	...	...	...	...	...	...
28	72.4	54.9	61.1	66.3	71.1	57.1	-2.4	+0.1	-0.5	-0.9	-0.7	+0.3	58.2	60.2	62.8	54.6	-0.3	-0.5	0.0	+0.3
29	70.7	56.1	61.4	67.3	70.1	59.1	-2.0	+0.8	0.0	-0.3	-1.4	+0.1	57.6	58.4	58.2	53.9	0.0	-0.1	-0.9	+0.3
30	67.2	49.3	58.4	63.0	65.2	57.0	-1.9	+0.4	-1.0	-1.5	-1.1	+0.4	52.2	54.9	57.4	55.0	-1.3	-1.0	-1.0	-0.3
31	61.9	52.1	58.2	60.4	61.6	53.6	-1.7	+0.3	-1.0	-0.4	-0.6	+0.1	55.0	56.1	54.0	47.2	-0.6	-0.2	-0.8	+0.4
Means	61.1	45.5	54.0	57.9	58.8	50.9	-1.5	+0.5	-0.4	-0.7	-0.4	+0.3	49.2	51.0	51.6	48.0	-0.4	-0.5	-0.2	+0.1

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

JUNE.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
1	61.1	45.0	51.0	57.2	55.1	49.5	-2.5	+0.8	-0.5	0.0	-0.5	0.0	47.6	48.6	48.0	46.6	-0.9	+0.5	-0.8	-0.2
2	60.4	46.1	51.0	55.0	59.3	55.0	-0.7	+0.5	-0.6	-0.4	-0.1	+0.5	48.4	50.1	52.8	51.7	-1.0	-0.8	0.0	+0.3
3	68.6	47.5	...	...	...	...	-2.1	+0.4	...	...	...	...	...	...	...	...	...	...	...	...
4	62.0	48.7	...	...	...	...	+1.0	+0.9	...	...	...	...	...	...	...	...	...	...	...	...
5	62.8	38.9	49.3	57.4	62.3	48.2	-1.0	+1.3	-0.3	-2.2	-0.3	+0.2	45.2	50.2	54.0	46.2	-0.3	-1.3	+0.4	+0.1
6	64.7	40.7	55.0	63.4	63.2	50.2	-1.3	+1.0	-1.5	-0.4	-0.4	+0.5	50.0	54.2	53.1	46.0	-1.7	+0.1	+0.1	+0.7
7	69.5	40.1	61.3	68.9	68.5	55.0	-2.2	+1.0	-0.2	0.0	-0.1	+0.4	54.4	55.2	53.0	50.8	+0.3	+0.5	+0.3	+0.5
8	72.5	44.0	60.4	69.2	71.9	56.8	-2.1	+1.1	-0.2	-0.6	+0.3	+0.1	48.7	53.4	56.7	49.0	+0.2	-0.3	+0.1	+0.8
9	70.6	47.0	61.3	69.0	68.3	54.0	-1.5	+0.9	-1.1	-0.7	-0.4	+0.3	54.1	58.4	59.3	52.0	-1.3	-0.5	-0.6	-0.1
10	67.2	47.1	...	...	...	...	-1.7	+0.8	...	...	...	...	...	...	...	...	...	...	...	...
11	69.4	46.2	50.9	57.1	67.2	53.8	-1.6	+0.9	-0.1	-0.5	-0.6	+0.9	48.1	52.8	58.0	52.2	-0.3	-0.1	+0.3	+0.4
12	70.6	47.1	57.0	59.4	67.7	58.6	-1.4	+0.1	-0.6	-0.7	-1.6	+0.9	53.4	55.0	59.5	56.2	-0.3	-0.3	-0.8	+0.5
13	60.8	48.2	51.7	59.1	59.0	52.1	-1.1	+0.1	+0.1	-0.4	-0.7	-0.1	50.0	55.1	55.4	49.5	-0.4	-0.2	-0.4	-0.2
14	54.6	47.8	49.1	51.7	53.8	50.9	-0.8	+0.3	-0.5	0.0	-0.2	+0.1	47.0	48.0	48.1	47.0	-0.3	0.0	-0.3	+0.1
15	57.3	48.0	51.5	52.8	56.4	49.4	-1.8	+0.3	-0.1	-0.1	-0.2	-0.1	48.9	49.4	50.1	48.0	-0.2	-0.1	-0.1	+0.2
16	62.5	46.5	51.5	59.8	60.7	52.0	-1.5	+0.4	-0.8	-1.2	-0.7	0.0	50.0	54.2	54.8	51.7	-0.7	-1.6	+0.6	0.0
17	66.8	49.9	...	...	...	...	-3.3	+0.8	...	...	...	...	...	...	...	...	...	...	...	...
18	72.4	44.1	63.8	70.0	67.6	56.9	-3.5	+1.0	-1.2	-0.8	-0.6	+1.2	56.0	58.6	58.4	54.7	-0.8	-0.4	-0.4	+0.7
19	72.6	47.4	65.9	66.6	72.0	58.4	-2.4	+1.0	-0.5	+0.5	-0.1	+1.1	58.2	60.3	61.0	56.0	0.0	0.0	+0.2	+0.3
20	78.4	52.0	69.7	76.0	77.6	67.5	-3.6	+0.9	-0.8	-1.6	-2.6	+0.1	58.6	62.6	61.9	60.4	-0.2	-0.3	-0.7	+0.6
21	74.9	59.4	65.0	72.4	74.4	70.0	-2.8	+0.3	-0.6	-1.3	-0.7	+0.3	62.3	64.7	66.1	66.0	0.0	-0.9	-0.3	+0.4
22	75.7	61.2	69.9	74.0	74.3	68.3	-2.9	+0.2	-0.7	-1.3	-1.1	+0.2	64.0	63.0	64.0	62.5	-0.3	-0.5	-0.7	+0.5
23	76.6	55.4	73.3	75.8	73.0	57.0	-1.9	+0.7	-1.2	-1.6	-0.6	+0.1	64.1	66.1	66.4	56.7	-0.9	-0.2	+0.2	0.0
24	70.9	56.2	...	...	...	...	-2.1	+0.1	...	...	...	...	...	...	...	...	...	...	...	...
25	69.0	54.6	62.9	64.3	68.1	59.7	-3.1	+0.7	-0.7	-1.3	-1.3	+0.2	58.3	60.2	61.3	57.3	+0.2	-0.3	-0.3	+0.1
26	72.0	56.2	66.2	71.2	68.0	61.1	-2.4	+0.1	-1.4	-1.3	-1.7	+0.5	60.4	63.0	61.6	58.0	-0.4	-0.3	-0.2	+0.4
27	74.0	52.3	67.0	71.6	72.6	62.9	-3.8	+0.9	-0.7	-0.8	-1.0	+0.3	60.0	62.0	63.1	60.0	+0.3	-0.5	-0.4	+0.5
28	74.5	60.4	63.8	69.0	70.5	60.9	-3.8	+0.3	-0.7	-1.4	-1.4	+0.2	61.2	62.2	63.4	59.2	-0.4	-0.7	-0.4	+0.3
29	61.1	48.1	...	...	...	...	+0.1	-0.1	...	...	...	...	...	...	...	...	...	...	...	...
30	63.5	42.2	53.1	59.2	62.9	54.7	-2.5	+1.0	-0.6	-2.6	-1.7	+1.3	46.2	50.9	53.2	50.4	-0.3	-1.7	-0.9	+1.1
Means	67.9	48.9	59.2	64.6	66.4	56.8	-2.0	+0.6	-0.6	-0.9	-0.8	+0.4	54.0	56.6	57.6	53.7	-0.4	-0.4	-0.2	+0.3

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

JULY.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
1	63.3	46.1	...	...	...	...	-2.8	+1.0	...	...	...	...	...	...	...	...	...	...	...	...
2	67.6	46.3	61.2	66.2	66.2	55.1	-1.6	+1.1	-0.4	-1.3	-1.2	+0.1	54.0	56.4	56.0	52.9	-0.7	-0.7	-0.7	+0.5
3	69.6	50.3	61.0	68.8	68.8	58.9	-1.3	+0.2	-0.7	-0.7	-0.5	+0.4	57.4	60.9	59.0	54.2	-0.4	+0.1	-0.6	+0.4
4	74.6	49.3	64.2	71.4	72.7	58.0	-2.2	+0.8	-0.6	-0.4	-0.4	+0.5	56.9	60.6	63.2	56.7	-0.2	+0.6	+0.5	+1.0
5	74.6	51.0	68.0	73.4	73.3	59.2	-2.0	+1.1	-0.5	-1.2	0.0	+0.6	58.6	61.0	59.8	57.0	-0.1	-0.6	+0.1	+0.5
6	75.8	53.4	66.9	74.0	73.6	65.0	-3.3	+0.3	-0.7	-1.8	-1.6	+0.2	60.4	63.2	61.0	58.2	0.0	-1.0	-0.8	+0.7
7	75.3	55.2	64.1	71.9	74.5	67.0	-3.7	+0.9	-0.5	-1.7	-1.7	+0.7	59.7	62.2	62.1	59.7	0.0	-1.4	-0.6	+0.2
8	72.8	56.1	...	...	...	...	-3.8	+0.9	...	...	...	...	...	...	...	...	...	...	...	...
9	72.6	55.2	66.2	70.1	68.9	63.4	-1.5	+1.1	-0.5	-0.8	-0.4	+0.1	62.0	62.7	64.0	61.1	-0.8	0.0	-0.1	+0.2
10	69.5	56.7	62.8	68.9	66.4	56.7	-1.5	+0.6	-0.7	-0.8	-0.4	+0.1	57.2	59.1	57.0	53.4	+0.1	-0.1	+0.3	+0.5
11	66.2	52.1	58.1	61.1	64.9	56.2	-2.8	+0.1	-0.6	-1.3	-0.8	0.0	53.2	53.9	53.8	50.3	-0.3	-0.8	+0.1	+0.4
12	65.7	50.4	60.0	64.0	63.0	53.0	-1.9	+0.7	-0.6	-0.2	-0.3	+0.7	52.1	54.0	54.3	51.0	-0.2	+0.3	+0.5	+0.9
13	69.6	48.2	62.6	67.6	64.5	56.7	-4.3	+0.7	-1.0	-1.4	-1.1	+0.1	56.2	55.7	56.1	54.8	-0.2	-0.3	-0.6	+0.3
14	75.7	56.4	65.7	70.4	75.7	64.0	-1.7	+0.2	+0.1	-1.4	-0.9	-0.3	56.9	59.6	63.2	57.0	-0.3	-0.3	+0.5	+0.3
15	67.9	54.5	...	...	...	...	-2.3	+0.3	...	...	...	...	...	...	...	...	...	...	...	...
16	73.5	50.8	63.6	68.6	71.0	63.1	-1.7	+0.5	-1.0	-1.0	-0.6	+0.3	56.3	60.9	63.5	60.0	0.0	+0.3	+0.3	+0.3
17	78.1	60.9	68.9	76.1	77.1	62.0	-2.6	+0.4	-1.6	-2.2	-2.6	+0.1	61.9	65.7	66.0	59.5	-0.1	-0.7	-0.7	+0.3
18	82.5	56.4	65.5	76.8	82.2	69.7	-3.7	+0.2	-1.0	-1.9	-2.6	+0.4	61.0	66.3	68.8	63.9	-0.7	0.0	-1.0	+0.8
19	70.0	57.0	59.4	60.4	62.0	58.0	+0.7	-0.3	-0.2	-0.4	-0.8	+0.4	57.8	55.4	55.2	51.9	+0.2	+0.1	-0.5	+0.6
20	67.6	51.8	56.9	60.0	64.1	60.6	-2.2	+0.6	-0.4	-0.2	-0.8	+0.2	52.9	53.1	53.1	51.0	+0.2	+0.2	-0.5	+0.7
21	66.6	47.3	60.0	65.0	65.2	63.9	-3.6	+0.5	-0.6	-0.6	-0.3	+0.2	53.6	59.0	60.8	61.9	-0.2	-0.7	+0.3	+0.4
22	78.6	62.9	...	...	...	...	-2.4	+0.5	...	...	...	...	...	...	...	...	...	...	...	...
23	80.9	61.1	71.9	78.1	79.2	70.2	-3.8	+1.0	-0.4	-1.1	-1.5	+0.2	67.0	68.7	69.0	66.0	-0.2	-0.1	-0.7	+0.6
24	71.8	60.1	64.7	67.2	71.0	64.2	-2.0	0.0	-1.1	-2.1	-1.3	+0.2	55.6	56.8	57.3	54.6	-0.9	-0.9	-0.3	+0.6
25	72.1	51.5	65.3	70.0	69.1	59.1	-1.9	+1.1	-1.2	-0.8	-0.3	+0.2	55.7	60.0	60.3	56.3	-0.3	+0.1	+0.1	+0.4
26	71.8	53.3	67.1	70.6	70.6	63.1	-1.7	+1.0	-1.6	0.0	-0.9	+0.1	58.9	61.0	62.0	60.4	-1.3	0.0	-0.4	+0.3
27	76.6	57.6	66.1	72.7	70.1	63.1	-2.4	+1.2	-0.9	-0.9	+0.1	-0.1	64.9	67.0	64.4	62.7	-0.4	-0.4	+0.4	+0.1
28	75.6	56.1	65.6	72.4	74.8	62.0	-3.0	+0.6	-0.9	-1.6	-1.0	+0.2	59.6	60.0	62.8	58.2	+0.3	-0.6	-0.5	+0.4
29	78.9	57.3	...	...	...	...	-4.1	+1.0	...	...	...	...	...	...	...	...	...	...	...	...
30	77.2	60.2	70.2	76.3	76.1	64.7	-1.1	+0.7	-0.4	-0.5	-0.2	+0.3	66.0	68.1	67.0	63.8	-0.2	+0.1	+0.7	+0.5
31	80.3	62.7	72.0	72.9	76.9	64.5	-3.9	+0.8	-1.0	-1.6	-0.5	+0.5	64.0	63.4	65.4	59.1	-0.3	+0.3	+0.9	+0.6
Means	73.0	54.5	64.5	69.8	70.8	61.6	-2.5	+0.6	-0.7	-1.1	-0.9	+0.2	58.5	60.6	61.0	57.5	-0.3	-0.2	-0.1	+0.5

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

AUGUST.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.				
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	76.8	51.7	68.0	73.2	75.9	62.4	-2.7	+1.3	-1.5	-2.8	-2.5	+0.3	60.4	62.1	62.0	57.2	+0.7	-1.3	-0.6	+1.0	
2	83.3	57.1	74.7	77.3	81.6	71.6	-1.7	+1.0	-1.3	-0.8	-1.4	+0.1	67.0	66.2	68.2	65.1	+0.1	+0.7	0.0	-0.2	
3	73.6	60.5	66.8	71.7	72.3	60.6	-2.3	+0.4	-1.2	-0.7	-1.7	0.0	61.0	62.3	61.1	57.8	-0.1	+0.9	+0.1	+1.1	
4	72.6	55.1	65.8	71.3	70.1	62.1	-2.0	+0.6	-0.8	-1.2	-0.6	+0.4	59.0	61.0	58.6	56.0	+0.1	+0.2	+0.7	+0.7	
5	75.6	55.1	...	...	...	...	-3.0	+0.8	...	...	...	...	...	...	...	...	...	...	...	...	
6	77.4	58.3	...	...	...	...	-2.1	+0.8	...	...	...	...	...	...	...	...	...	...	...	...	
7	80.7	56.2	68.4	77.3	79.7	66.0	-3.8	+1.1	-1.2	-0.5	-0.6	+0.4	63.0	66.8	67.3	62.0	-1.3	+0.2	+0.6	+0.4	
8	83.9	57.7	75.0	81.6	82.5	68.0	-2.8	+0.8	-0.6	-1.1	-1.7	+0.4	64.8	67.2	67.8	63.4	+0.1	-0.2	-0.4	+0.1	
9	71.8	58.2	65.4	69.6	69.7	64.2	-3.2	+0.7	-1.1	-0.8	-0.5	-0.2	58.3	60.0	59.4	60.1	-1.1	+0.2	+0.1	+0.4	
10	72.0	57.5	63.1	69.0	67.9	61.3	-3.9	+0.4	-2.1	-1.2	-1.1	-1.0	58.6	60.2	62.0	57.4	0.0	-0.1	-0.4	+0.4	
11	68.4	54.9	61.6	66.0	67.9	59.7	-3.0	+0.4	-0.2	-0.6	-0.3	+0.5	57.1	58.1	57.8	56.8	+0.4	+0.4	-0.1	+0.4	
12	69.4	55.2	...	...	...	...	-2.6	+0.5	...	...	...	...	...	...	...	...	...	...	...	...	
13	78.3	59.6	73.3	77.9	71.9	64.0	-2.8	+0.7	-1.1	-1.5	-0.7	0.0	66.0	68.2	66.8	64.0	-0.5	+0.2	+0.2	+0.2	
14	70.6	57.8	62.3	66.7	69.2	61.3	-1.9	+0.8	-0.8	-1.2	-0.8	+0.3	60.0	61.7	61.0	57.4	-0.1	-0.1	-0.6	+0.3	
15	68.6	55.4	62.0	63.4	65.7	58.0	-2.4	+0.6	-0.6	-1.6	-0.9	0.0	57.0	59.0	57.0	56.0	-0.3	-0.5	-0.4	+0.2	
16	66.4	52.6	62.1	63.9	65.1	57.2	-2.4	+0.4	-0.7	-0.7	-1.6	+0.3	55.8	55.5	57.7	52.4	-0.3	-0.4	-1.0	+0.2	
17	66.1	54.3	60.0	62.4	57.8	56.2	-2.8	+0.3	-0.9	-1.2	-0.8	0.0	55.8	57.0	54.1	52.1	-0.5	-0.7	-0.6	0.9	
18	63.6	51.5	56.9	62.3	62.3	58.1	-1.5	+0.3	-0.4	-0.4	-0.3	+0.4	52.9	54.5	54.8	53.0	-0.3	0.0	0.0	+0.2	
19	65.9	51.9	...	...	...	...	-2.1	+0.4	...	...	...	...	...	...	...	...	...	...	...	...	
20	73.0	50.5	64.0	66.0	69.6	65.4	-2.4	+0.8	-0.9	-0.6	-0.4	-0.1	58.1	61.5	64.8	63.7	-0.4	-0.4	+0.1	+0.1	
21	79.8	62.2	68.5	76.2	77.4	66.5	-2.7	+0.2	-0.9	-1.4	0.0	+0.7	64.0	66.6	65.4	63.7	-0.7	-0.6	-0.4	+0.6	
22	86.0	56.7	74.8	83.1	85.3	69.3	-2.4	+1.3	-0.2	-1.6	-1.3	+0.7	67.0	69.8	69.2	63.7	+0.2	0.0	-0.6	+0.5	
23	77.7	57.0	68.7	72.5	70.4	61.6	-2.7	+1.5	-0.4	-0.4	-0.6	+0.1	62.8	64.0	64.6	60.0	+0.1	-0.1	-0.1	+0.1	
24	76.3	60.7	66.8	64.0	75.3	64.2	-0.7	+0.4	-0.7	-0.6	-1.3	0.0	62.2	63.5	62.7	60.3	-0.4	-0.2	+0.1	+0.1	
25	68.3	58.4	63.4	66.4	67.5	59.2	-1.7	+0.4	-0.2	-0.8	-0.2	+0.4	58.0	58.2	57.4	55.3	+0.2	-0.2	+0.3	+0.4	
26	74.0	53.6	...	...	...	...	-2.0	+0.5	...	...	...	...	...	...	...	...	...	...	...	...	
27	75.7	59.2	69.0	74.6	75.2	59.2	-1.7	+0.1	-0.8	-1.4	-0.3	-0.4	63.0	62.1	62.2	57.0	-0.4	-0.3	+0.5	+0.3	
28	70.7	50.1	62.0	67.4	68.9	55.5	-1.2	+1.2	-0.2	-1.1	-1.7	+0.9	55.6	57.2	58.2	52.1	-0.3	-0.4	+0.3	+0.7	
29	73.0	45.2	63.8	71.3	72.9	57.0	-1.0	+1.1	-0.8	-0.2	+0.3	-0.3	56.1	59.7	61.0	55.1	-0.6	0.0	+0.9	+0.2	
30	84.5	51.6	58.0	80.7	84.0	63.8	-1.3	+1.2	+0.4	-0.6	-1.2	+0.6	57.7	64.0	66.0	58.0	+0.1	-0.4	+0.4	+0.5	
31	92.4	57.1	82.6	89.2	91.6	68.9	-1.9	+1.0	0.0	-0.6	-0.2	+0.5	65.9	68.0	69.8	62.5	+1.5	-0.2	+0.9	+1.4	
Means	74.7	55.6	66.4	71.7	73.0	62.4	-2.3	+0.7	-0.7	-1.0	-0.9	+0.2	60.3	62.1	62.2	58.5	-0.1	-0.1	0.0	+0.4	

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

SEPTEMBER.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	90.6	59.5	82.0	90.1	88.0	65.1	-1.3	+1.2	-0.4	-0.5	-0.1	+0.4	69.0	67.9	68.0	62.9	+0.9	+0.6	+1.2	+0.8
2	92.5	59.5	...	...	...	...	-1.0	+1.5	...	...	...	...	...	...	...	...	...	...	...	...
3	89.0	57.3	80.4	87.9	87.4	69.1	-2.0	+1.2	-0.4	-1.7	-1.2	+0.5	64.8	66.0	69.0	63.2	+0.6	-0.2	+0.6	+0.4
4	76.8	60.6	67.4	75.8	75.0	67.3	-1.5	+0.4	-0.9	-0.8	-0.5	-0.1	62.9	66.2	66.2	63.0	-0.1	-0.2	-0.2	-0.4
5	69.7	53.0	54.8	61.1	68.0	61.3	-1.3	+0.8	-0.3	-1.1	-0.5	+0.2	52.3	54.2	59.0	56.2	-0.4	-0.8	+0.1	+0.4
6	74.0	57.2	63.6	68.0	73.1	64.8	-2.0	-0.6	0.0	-0.6	-0.9	+0.2	60.5	64.0	65.6	62.2	+0.2	-0.2	+0.3	+0.3
7	73.8	62.5	63.6	70.6	72.4	62.8	-2.2	+0.4	-0.2	-0.9	-1.1	+0.2	61.2	64.6	65.4	61.0	-0.2	-0.6	-0.3	+0.2
8	78.1	54.5	65.0	74.6	77.2	69.1	-2.2	+0.4	-0.8	-0.8	-0.6	+0.3	59.9	63.0	62.7	60.1	-0.3	+0.3	0.0	+0.6
9	69.4	58.5	...	...	...	...	-0.5	+0.2	...	...	...	...	...	...	...	...	...	...	...	...
10	65.5	47.1	56.4	61.9	63.4	54.0	-1.4	+0.9	-0.2	+0.3	-0.1	+0.3	50.9	52.2	52.2	50.0	+0.2	+0.6	+0.1	+0.5
11	68.6	40.1	55.1	65.7	68.3	51.0	-2.4	+1.0	-1.4	-0.7	-0.3	+0.4	50.7	54.3	55.6	49.1	-1.0	-0.5	+0.7	+0.2
12	70.4	46.1	61.2	65.6	66.9	57.6	-1.6	+1.8	-1.2	-1.0	-0.7	+0.1	56.9	57.8	57.0	56.1	-0.8	-0.3	-0.4	+0.1
13	67.6	56.1	61.9	66.0	66.7	57.1	-2.4	+0.8	-0.6	-0.5	-0.8	-0.3	57.2	58.2	58.9	56.7	-0.5	-0.2	-0.3	0.0
14	66.4	51.1	60.0	64.4	64.2	59.0	-1.7	+0.3	-0.1	-0.3	-0.5	+0.4	55.0	56.7	59.0	56.7	-0.2	-0.2	0.0	+0.1
15	63.7	49.5	56.0	59.1	61.7	49.5	-2.0	+0.3	-0.2	+0.1	+0.1	0.0	51.0	50.1	52.3	48.2	-0.2	+0.2	-0.4	0.0
16	57.5	45.8	...	...	...	...	-1.3	+0.7	...	...	...	...	...	...	...	...	...	...	...	...
17	64.5	49.8	52.0	60.0	61.3	57.0	-0.5	-0.8	+0.7	0.0	-0.1	0.0	51.1	55.0	55.2	55.2	+0.1	0.0	+0.2	+0.1
18	64.3	52.9	57.8	61.8	63.4	57.1	-0.8	+0.4	+0.2	-0.4	0.0	0.0	54.0	55.0	55.2	53.0	-0.2	-0.6	+0.3	+0.3
19	59.0	53.9	57.0	57.1	58.0	56.0	-0.8	+0.6	+0.1	-0.4	-0.6	+0.3	54.0	55.7	56.4	53.9	-0.2	0.0	-0.3	+0.4
20	62.0	54.0	58.2	61.1	60.4	54.0	-1.0	+0.9	-0.4	-0.5	-0.2	+0.2	55.9	56.0	56.1	51.1	0.0	-0.3	+0.3	+0.1
21	64.5	50.3	55.4	61.2	63.0	56.3	-0.8	+0.5	-0.4	-0.5	-0.3	-0.2	53.6	56.8	57.0	55.0	-0.2	-0.2	-0.1	+0.2
22	64.5	51.1	55.0	63.0	60.3	52.0	-1.2	+0.5	-0.6	-0.8	-0.4	-0.1	53.0	57.0	54.0	49.0	-0.6	+0.1	-0.1	+0.2
23	59.0	49.3	...	...	...	...	-1.4	+0.2	...	...	...	...	...	...	...	...	...	...	...	...
24	60.8	49.1	56.0	58.4	59.0	52.1	-1.4	+0.7	-0.3	-0.3	-0.1	-0.2	53.0	52.4	51.1	48.0	-0.2	-0.3	-0.2	+0.2
25	59.7	45.1	55.2	59.1	58.7	47.0	-0.7	+1.8	+0.1	-0.3	+0.1	-0.5	49.2	50.9	49.9	45.0	-0.1	-0.3	+0.2	+0.1
26	62.6	39.2	53.6	58.7	61.0	50.1	-1.0	+1.1	0.0	-0.2	+0.2	-0.2	49.7	51.9	52.2	49.0	-0.1	+0.2	-0.4	+0.2
27	64.6	38.2	50.7	63.2	63.9	47.2	-0.4	+1.1	-0.9	-0.3	+0.7	+1.4	49.2	54.0	54.1	47.0	-0.4	-0.6	0.0	+1.3
28	64.2	38.5	46.1	61.4	64.0	48.0	-0.5	+0.4	-0.5	-0.2	+0.2	+0.5	46.0	55.0	55.0	47.2	-0.6	+0.5	-0.1	+0.5
29	64.4	37.6	45.8	61.9	63.2	53.3	-0.7	+0.4	-0.5	+0.1	+0.6	-0.1	45.4	56.0	56.0	51.7	-0.4	-0.5	+0.2	0.0
30	65.1	43.2	...	...	...	...	-2.0	+0.3	...	...	...	...	...	...	...	...	...	...	...	...
Means	68.4	50.4	58.8	65.5	66.7	56.7	-1.3	+0.6	-0.4	-0.5	-0.3	+0.1	54.7	57.2	57.7	54.0	-0.2	-0.1	+0.1	+0.3

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

OCTOBER.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	70.3	46.1	56.0	67.5	68.5	59.0	-1.5	+1.4	+0.2	-0.4	-0.6	+0.3	55.0	59.1	58.9	57.5	+0.1	-0.8	-0.8	-0.1
2	62.6	58.2	61.0	60.2	62.3	60.5	-0.7	+0.1	-0.3	0.0	-0.4	-0.1	59.9	58.9	60.0	60.0	-0.1	+0.1	-0.5	+0.2
3	62.1	55.6	57.7	60.4	61.6	55.6	-0.7	+0.1	0.0	-0.3	-0.1	+0.1	54.1	55.1	54.1	54.1	-0.2	-0.2	+0.1	0.0
4	65.3	52.3	58.5	64.0	63.5	61.7	-1.4	+1.2	0.0	-0.4	-0.2	+0.1	56.0	59.0	59.0	60.0	-0.4	-0.4	-0.1	+0.1
5	65.9	58.4	65.2	64.9	62.6	58.4	-1.5	+0.3	-0.2	+0.5	-0.4	-0.2	60.1	60.1	58.0	55.9	-0.1	+0.2	-0.7	+0.2
6	65.2	51.1	57.8	64.0	62.5	58.3	-1.3	+0.8	+0.2	+0.8	-0.2	+0.2	53.9	57.0	57.5	57.1	+0.2	+0.5	0.0	+0.3
7	67.4	55.9	...	...	...	...	-1.5	+0.8	...	...	...	...	...	...	...	...	...	...	...	...
8	64.6	53.2	59.7	63.6	61.0	54.0	-0.8	+0.1	+1.0	-0.2	+0.1	+0.2	55.0	55.9	55.1	53.0	+0.4	-0.4	+0.3	+0.3
9	63.3	50.1	58.7	57.8	61.8	58.2	-1.7	+1.0	-0.4	-0.1	-0.1	+0.6	56.4	57.0	58.2	56.9	-0.3	-0.1	-0.1	+0.7
10	67.6	56.5	61.4	67.2	65.9	57.8	-1.5	+1.0	-0.2	-0.2	-0.1	+0.2	59.1	62.8	62.1	57.0	-0.4	+0.2	-0.4	-0.5
11	69.9	53.2	61.0	69.7	68.8	58.0	-1.0	+0.6	+0.3	+0.8	+0.2	+0.4	58.3	63.2	62.4	57.0	-0.2	+0.3	-0.1	+0.6
12	63.5	52.1	56.7	60.5	62.0	55.5	-0.9	+0.5	+0.2	-0.5	+0.2	0.0	52.3	54.4	55.1	53.8	-0.2	-0.5	+0.2	+0.3
13	55.5	45.4	49.6	52.0	54.5	45.8	-0.1	+0.2	-0.2	-0.6	-0.1	+0.2	47.8	48.0	47.8	42.7	-0.2	-0.1	+1.1	+0.2
14	52.2	39.1	...	...	...	...	-0.8	+0.2	...	...	...	...	...	...	...	...	...	...	...	...
15	59.9	37.0	50.5	54.8	59.0	54.5	-0.9	+1.8	-0.1	-0.4	-0.3	+0.3	48.8	53.9	55.8	51.4	0.0	+0.1	0.0	-0.2
16	60.0	51.6	54.4	59.0	57.0	52.8	-1.2	+0.4	-0.2	+0.4	-0.5	+0.1	51.9	51.6	52.0	50.9	-0.3	+0.4	-0.5	+0.2
17	60.6	50.3	58.7	54.0	57.9	54.0	-0.6	+0.7	0.0	+0.1	-0.3	+0.3	55.0	52.3	55.0	52.9	0.0	0.0	-0.5	+0.3
18	61.7	53.0	57.9	60.9	59.7	54.8	-1.2	+0.9	+0.1	-0.4	-0.5	+0.3	54.2	54.9	54.4	53.0	-0.2	+0.5	-0.4	+0.2
19	57.5	43.6	45.8	52.9	54.0	46.6	+0.5	+0.2	-0.1	+0.4	-0.3	+0.2	43.6	47.3	47.0	44.7	0.0	+0.3	-0.1	+0.2
20	59.6	38.5	48.3	56.0	58.0	55.1	-0.3	+1.3	+0.7	-0.1	+0.4	-0.2	46.7	50.0	51.9	54.2	+0.3	0.0	+0.2	0.0
21	66.5	55.1	...	...	...	...	-1.0	-0.2	...	...	...	...	...	...	...	...	...	...	...	...
22	68.6	55.9	61.9	66.0	66.0	58.0	-0.5	+0.8	-0.1	-0.6	-0.3	+0.4	58.8	60.7	60.9	57.0	-0.3	-0.6	-0.3	+0.3
23	63.7	53.1	58.0	60.7	62.1	53.1	-1.3	+0.9	0.0	-0.6	-0.1	+0.3	55.0	56.1	57.0	52.0	0.0	-0.5	+0.2	+0.3
24	64.5	48.4	57.2	60.1	60.1	49.1	-0.3	+1.0	+0.3	-0.4	0.0	+1.7	55.0	55.1	55.0	48.1	+0.2	-0.2	+0.1	+1.0
25	54.6	43.6	47.3	53.6	53.6	43.6	-0.4	+0.7	-0.3	-0.1	0.0	-0.2	44.8	47.5	47.7	42.5	0.0	+0.1	+0.2	0.0
26	55.6	32.6	40.2	54.4	54.1	46.0	-1.5	+0.5	-0.6	-0.1	-0.5	+0.2	40.1	49.3	48.3	44.9	-0.6	+0.5	-0.4	+0.2
27	52.5	39.3	49.1	52.1	50.0	39.4	-0.8	+1.0	-0.4	-0.5	+0.1	+0.7	46.0	47.0	45.1	38.8	-0.3	-0.1	+0.1	+0.8
28	53.8	38.3	...	...	...	...	-0.2	+1.1	...	...	...	...	...	...	...	...	...	...	...	...
29	52.7	40.1	43.4	51.2	50.1	44.1	-0.3	+0.6	+0.6	+0.6	-0.2	0.0	40.0	45.0	45.0	42.3	+0.3	+0.3	+0.3	+0.2
30	49.6	42.1	47.0	49.1	47.9	45.0	-0.7	+1.0	+0.1	-0.6	0.0	+0.1	46.0	47.5	45.7	44.3	0.0	-0.5	-0.1	-0.2
31	54.6	41.3	44.1	47.7	51.0	48.8	+0.4	+0.7	-0.2	-0.6	+0.2	+0.2	43.9	47.0	47.5	48.0	-0.2	-0.5	-0.1	+0.2
Means	61.0	48.1	54.3	58.7	59.1	52.9	-0.8	+0.7	0.0	-0.1	-0.1	+0.2	51.8	53.9	53.9	51.5	-0.1	-0.1	-0.1	+0.2

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

NOVEMBER.

Days of the Month.	Readings of Dry-Bulb Thermometers in a Stevenson's Screen, 4 ft. above the ground.						Excess above readings of Thermometers on the ordinary stand, 4 ft. above the ground.						Readings of the Wet-Bulb Thermometer in a Stevenson's Screen, 4 ft. above the ground.				Excess above readings of the Thermometer on the ordinary stand, 4 ft. above the ground.			
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
d	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
1	51.8	48.4	50.0	51.1	51.5	50.5	0.0	+0.3	0.0	-0.2	0.0	+0.2	48.4	49.0	49.0	49.0	0.0	+0.2	-0.1	+0.2
2	51.5	40.8	47.7	48.5	49.9	40.8	-0.4	+0.8	+0.1	-0.1	+0.2	+0.8	46.7	47.8	44.6	40.4	0.0	-0.1	0.0	+0.6
3	55.8	40.7	46.0	52.8	49.4	43.1	-0.2	+0.7	-0.3	+0.3	-0.1	+0.2	45.0	48.0	46.1	42.8	-0.3	-0.5	-0.2	+0.1
4	48.6	40.2	...	...	...	...	-0.3	+0.9	...	...	...	...	...	...	...	...	...	...	...	...
5	54.6	42.0	47.0	52.8	53.0	42.0	-0.1	+1.1	+0.4	+0.7	+0.8	+0.8	44.3	46.8	47.6	41.4	0.0	+0.1	+0.5	+0.5
6	51.4	36.8	39.8	48.3	50.8	46.9	-0.3	+3.3	+0.3	-0.5	-0.1	+0.2	39.4	47.3	48.3	46.7	0.0	-0.4	-0.1	+0.1
7	54.1	46.8	48.9	52.4	51.0	49.0	-1.9	+0.5	-0.2	-0.1	+0.2	0.0	47.8	49.6	49.1	48.3	-0.1	-0.1	-0.3	-0.3
8	51.4	49.0	51.1	51.3	50.5	50.4	0.0	+0.9	-0.1	0.0	-0.2	-0.2	50.4	50.8	50.0	50.0	-0.2	0.0	-0.3	-0.3
9	53.0	46.1	49.8	52.9	50.0	46.4	-0.2	+0.2	-0.1	-0.2	+0.1	0.0	48.8	50.7	47.9	45.0	+0.1	-0.2	0.0	+0.3
10	50.0	44.1	46.3	49.3	48.8	44.1	-0.2	+0.5	-0.1	0.0	+0.2	+0.3	43.4	44.4	44.2	41.8	0.0	0.0	-0.1	+0.2
11	49.4	35.7	...	...	...	...	+0.3	+0.9	...	...	...	...	...	...	...	...	...	...	...	...
12	46.6	28.9	34.5	44.8	45.3	37.7	+0.1	-0.3	+0.2	0.0	+0.2	-0.4	34.2	40.5	42.0	36.5	+0.5	-0.1	+0.4	+0.2
13	43.6	32.7	38.2	43.0	42.2	41.8	-0.1	+0.6	-0.1	-0.3	+0.2	+0.3	37.6	40.8	41.1	41.0	-0.1	+0.1	-0.2	+0.1
14	46.9	40.4	42.1	46.2	45.8	43.7	+0.2	+0.3	0.0	-0.2	0.0	+0.1	40.8	42.7	42.5	40.9	+0.1	0.0	0.0	+0.2
15	52.6	39.5	47.1	50.7	49.0	48.0	+0.1	+0.7	+0.1	+0.1	-0.1	-0.1	45.8	45.5	47.0	44.7	-0.1	-0.1	+0.1	+0.1
16	53.6	40.4	42.0	43.9	46.0	53.2	+0.1	+0.3	0.0	-0.1	-0.2	+0.3	40.0	42.1	45.5	51.5	+0.2	-0.2	+0.1	+0.2
17	53.6	45.0	50.6	48.6	48.4	45.0	+0.1	+0.8	0.0	0.0	-0.1	+0.4	46.2	48.1	46.0	42.5	+0.2	+0.1	+0.3	+0.6
18	45.8	38.1	...	...	...	...	-0.9	+0.5	...	...	...	...	...	...	...	...	...	...	...	...
19	41.8	29.5	32.7	41.1	41.2	39.0	-0.2	+1.0	+0.1	-0.1	-0.1	+0.3	31.5	38.1	39.6	36.9	+0.2	-0.3	-0.1	+0.2
20	44.0	36.2	38.9	43.5	42.9	38.9	-0.4	+0.3	+0.3	0.0	+0.3	+0.5	36.1	38.0	37.9	36.3	+0.1	0.0	+0.3	+0.3
21	56.9	38.9	52.5	55.1	56.1	54.2	-0.1	+0.6	0.0	+0.1	0.0	-0.1	51.8	53.4	54.0	53.8	-0.1	-0.2	0.0	-0.1
22	60.7	51.3	57.5	59.2	60.0	52.0	+0.4	+0.7	-0.1	0.0	+0.4	+0.3	55.2	56.1	55.4	51.0	-0.2	0.0	0.0	+0.3
23	53.9	46.9	51.3	52.2	53.7	49.0	-0.1	+1.0	+0.2	-0.1	+0.1	+0.2	50.8	51.8	52.4	48.8	-0.1	-0.1	-0.3	+0.1
24	50.8	45.1	47.2	50.0	50.8	48.1	-0.2	+0.3	-0.2	+0.1	+0.2	+0.1	47.1	49.6	50.2	47.3	-0.3	-0.2	-0.2	-0.3
25	50.0	45.2	...	...	...	...	0.0	+0.1	...	...	...	...	...	...	...	...	...	...	...	...
26	48.7	40.0	40.0	41.2	45.3	48.7	+0.2	0.0	0.0	-0.1	+0.1	+0.2	40.0	41.1	45.1	47.2	0.0	-0.2	0.0	+0.1
27	55.8	46.2	53.0	55.4	52.2	46.7	-0.2	+0.9	+0.1	-0.2	-0.3	+0.2	52.2	51.0	46.3	43.0	+0.1	-0.1	-0.2	+0.4
28	52.6	40.0	47.8	50.9	52.0	50.9	+0.2	+0.9	+0.2	+0.1	+0.2	+0.3	46.7	49.8	49.5	48.6	+0.1	+0.1	+0.3	+0.2
29	54.5	50.7	53.1	54.0	53.9	54.5	-0.3	+0.8	-0.2	-0.2	+0.3	-0.3	50.6	51.7	52.0	52.8	+0.1	+0.2	+0.3	+0.1
30	55.2	43.0	52.0	51.2	48.2	43.0	+0.2	+0.9	+0.3	0.0	+0.1	+0.4	51.3	47.0	43.9	39.5	0.0	+0.1	+0.5	+0.7
Means	51.3	41.6	46.4	49.6	49.5	46.4	-0.1	+0.7	0.0	0.0	+0.1	+0.2	45.1	47.0	46.8	44.9	0.0	-0.1	0.0	+0.2

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



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

1906.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	.	.	.	.	.	.	.	.	.	.	.	.
1	52·53	51·69	50·93	50·13	49·52	49·26	49·40	50·16	51·26	52·32	53·16	53·47
2	52·51	51·67	50·87	50·10	49·52	49·25	49·43	50·19	51·30	52·37	53·17	53·50
3	52·47	51·65	50·84	50·09	49·51	49·27	49·46	50·22	51·35	52·40	53·20	53·53
4	52·47	51·63	50·82	50·06	49·50	49·26	49·46	50·25	51·36	52·45	53·18	53·53
5	52·45	51·59	50·84	50·05	49·48	49·26	49·48	50·27	51·38	52·49	53·22	53·46
6	52·41	51·55	50·82	50·02	49·47	49·25	49·47	50·32	51·43	52·51	53·24	53·47
7	52·40	51·56	50·81	50·00	49·42	49·26	49·52	50·35	51·47	52·55	53·25	53·45
8	52·37	51·52	50·76	49·98	49·42	49·27	49·52	50·39	51·50	52·56	53·27	53·46
9	52·37	51·47	50·72	49·98	49·37	49·26	49·58	50·40	51·54	52·57	53·28	53·46
10	52·32	51·47	50·70	49·95	49·38	49·25	49·60	50·44	51·56	52·64	53·30	53·44
11	52·28	51·43	50·68	49·93	49·36	49·27	49·62	50·46	51·59	52·66	53·31	53·44
12	52·28	51·35	50·61	49·89	49·35	49·27	49·64	50·51	51·63	52·68	53·31	53·45
13	52·25	51·35	50·56	49·89	49·39	49·28	49·66	50·55	51·66	52·72	53·33	53·43
14	52·22	51·33	50·55	49·85	49·38	49·27	49·68	50·57	51·70	52·72	53·35	53·42
15	52·18	51·27	50·53	49·84	49·35	49·28	49·70	50·61	51·75	52·77	53·38	53·41
16	52·17	51·27	50·52	49·83	49·34	49·29	49·72	50·63	51·76	52·81	53·37	53·40
17	52·13	51·25	50·53	49·80	49·33	49·25	49·76	50·67	51·83	52·84	53·40	53·42
18	52·10	51·23	50·48	49·76	49·33	49·27	49·76	50·71	51·85	52·87	53·40	53·42
19	52·06	51·22	50·45	49·74	49·32	49·30	49·76	50·74	51·90	52·87	53·36	53·37
20	52·02	51·18	50·43	49·73	49·27	49·29	49·78	50·79	51·96	52·89	53·38	53·37
21	52·00	51·14	50·39	49·73	49·31	49·28	49·82	50·84	51·99	52·96	53·41	53·35
22	51·97	51·12	50·36	49·71	49·27	49·32	49·87	50·89	52·03	53·00	53·46	53·32
23	51·94	51·07	50·33	49·66	49·27	49·32	49·91	50·92	52·02	53·02	53·46	53·32
24	51·92	51·05	50·30	49·62	49·27	49·37	49·93	50·94	52·06	53·00	53·46	53·32
25	51·92	51·05	50·25	49·60	49·25	49·36	49·95	50·97	52·11	53·02	53·46	53·32
26	51·90	51·00	50·25	49·58	49·25	49·39	49·98	51·01	52·14	53·03	53·46	53·30
27	51·87	50·97	50·23	49·58	49·28	49·40	50·01	51·04	52·18	53·05	53·50	53·28
28	51·81	50·94	50·20	49·56	49·28	49·41	50·03	51·06	52·20	53·09	53·50	53·27
29	51·77		50·16	49·56	49·28	49·40	50·07	51·09	52·25	53·10	53·52	53·27
30	51·76		50·13	49·55	49·27	49·42	50·10	51·15	52·30	53·12	53·51	53·22
31	51·70		50·12		49·26		50·13	51·22		53·14		53·22
Means	52·15	51·32	50·52	49·83	49·35	49·30	49·74	50·66	51·77	52·78	53·35	53·39

The mean of the twelve monthly values is 51°·18.

(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.

1906.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	.	.	.	.	.	.	.	.	.	.	.	.
1	49·96	48·32	46·97	46·49	46·82	48·36	51·06	54·23	56·72	57·51	56·54	54·35
2	49·86	48·28	46·88	46·46	46·86	48·40	51·16	54·33	56·77	57·44	56·51	54·30
3	49·81	48·22	46·85	46·46	46·90	48·51	51·32	54·39	56·82	57·42	56·46	54·23
4	49·80	48·23	46·83	46·43	46·94	48·56	51·42	54·48	56·78	57·43	56·41	54·15
5	49·73	48·17	46·86	46·41	46·97	48·65	51·52	54·52	56·73	57·42	56·32	54·02
6	49·62	48·12	46·82	46·38	47·00	48·72	51·63	54·69	56·82	57·38	56·29	54·00
7	49·65	48·06	46·80	46·38	47·01	48·84	51·77	54·78	56·89	57·36	56·24	53·87
8	49·60	48·07	46·75	46·36	47·03	48·85	51·81	54·90	56·95	57·31	56·19	53·82
9	49·51	48·00	46·70	46·30	47·03	48·94	51·99	54·92	56·93	57·24	56·12	53·80
10	49·47	48·00	46·67	46·32	47·04	49·06	52·08	55·03	56·97	57·28	56·03	53·70

(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.

1906.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	.	.	.	.	.	.	.	.	.	.	.	.
11	49·39	47·95	46·64	46·29	47·06	49·14	52·15	55·09	57·02	57·21	55·94	53·68
12	49·36	47·87	46·53	46·26	47·10	49·22	52·25	55·20	57·10	57·19	55·84	53·62
13	49·30	47·84	46·54	46·30	47·22	49·31	52·38	55·33	57·13	57·11	55·80	53·55
14	49·23	47·81	46·54	46·29	47·24	49·34	52·48	55·36	57·21	57·04	55·74	53·48
15	49·13	47·76	46·54	46·30	47·28	49·49	52·56	55·47	57·20	57·09	55·70	53·39
16	49·12	47·67	46·54	46·32	47·30	49·59	52·65	55·53	57·23	57·08	55·60	53·30
17	49·02	47·63	46·54	46·32	47·36	49·62	52·81	55·62	57·30	57·05	55·56	53·22
18	48·98	47·60	46·56	46·32	47·42	49·81	52·91	55·71	57·30	57·06	55·43	53·13
19	48·87	47·55	46·53	46·36	47·50	49·86	52·92	55·79	57·35	56·98	55·31	53·04
20	48·81	47·49	46·53	46·39	47·49	50·03	53·02	55·92	57·42	56·94	55·23	52·93
21	48·81	47·41	46·52	46·43	47·58	50·06	53·12	56·05	57·45	56·99	55·22	52·82
22	48·81	47·37	46·51	46·42	47·63	50·16	53·30	56·15	57·50	57·02	55·19	52·72
23	48·74	47·33	46·49	46·42	47·72	50·30	53·41	56·18	57·43	56·91	55·06	52·64
24	48·71	47·24	46·50	46·53	47·81	50·42	53·46	56·20	57·47	56·90	54·97	52·57
25	48·71	47·23	46·49	46·52	47·81	50·49	53·57	56·22	57·49	56·82	54·83	52·44
26	48·68	47·14	46·50	46·53	47·91	50·61	53·64	56·30	57·49	56·78	54·77	52·34
27	48·62	47·04	46·48	46·66	48·04	50·70	53·74	56·38	57·53	56·73	54·74	52·24
28	48·53	47·02	46·48	46·67	48·11	50·80	53·86	56·41	57·47	56·70	54·63	52·14
29	48·51		46·42	46·74	48·20	50·92	53·95	56·47	57·49	56·64	54·59	52·04
30	48·42		46·43	46·79	48·24	50·97	54·05	56·52	57·48	56·60	54·48	51·96
31	48·32		46·41		48·29		54·10	56·68		56·57		51·83
Means	49·13	47·73	46·61	46·43	47·42	49·59	52·65	55·51	57·18	57·07	55·59	53·20

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

(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.

1906.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	.	.	.	.	.	.	.	.	.	.	.	.
1	47·44	46·10	44·51	44·85	47·42	51·30	56·52	59·99	61·46	59·62	56·81	52·80
2	47·42	46·13	44·52	44·92	47·44	51·53	56·62	60·12	61·44	59·44	56·62	52·78
3	47·40	46·14	44·51	44·93	47·48	51·80	56·72	60·18	61·49	59·28	56·44	52·71
4	47·26	46·20	44·52	44·96	47·48	51·91	56·74	60·31	61·44	59·20	56·23	52·65
5	47·10	46·16	44·68	45·01	47·52	52·05	56·82	60·43	61·41	59·16	56·02	52·51
6	47·04	46·13	44·71	45·03	47·60	52·17	56·89	60·59	61·58	59·08	55·83	52·46
7	47·07	46·10	44·75	45·10	47·64	52·36	56·96	60·70	61·69	59·09	55·52	52·33
8	47·10	45·98	44·80	45·18	47·81	52·43	57·07	60·83	61·77	59·02	55·33	52·26
9	47·04	45·85	44·88	45·23	47·98	52·62	57·24	60·83	61·80	59·02	55·21	52·19
10	47·08	45·76	45·01	45·31	48·12	52·71	57·42	60·95	61·79	59·09	54·84	52·01
11	47·08	45·64	45·13	45·48	48·41	52·96	57·54	61·00	61·83	59·03	54·87	51·84
12	47·09	45·48	45·12	45·61	48·53	53·18	57·70	61·14	61·82	59·02	54·80	51·68
13	46·98	45·42	45·13	45·70	48·81	53·39	57·88	61·20	61·78	58·91	54·75	51·40
14	46·84	45·20	45·22	45·94	48·97	53·54	58·03	61·27	61·70	58·83	54·63	51·15
15	46·82	45·10	45·31	46·15	49·10	53·74	58·10	61·31	61·56	58·88	54·51	50·91

(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.

1906.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
16	46.80	45.04	45.26	46.39	49.30	53.94	58.14	61.36	61.49	58.80	54.30	50.70
17	46.71	44.96	45.24	46.58	49.50	54.04	58.34	61.36	61.40	58.67	54.10	50.41
18	46.62	44.88	45.30	46.70	49.69	54.14	58.42	61.37	61.33	58.53	53.80	50.08
19	46.66	44.78	45.37	46.84	49.83	54.18	58.43	61.32	61.19	58.34	53.61	49.95
20	46.62	44.77	45.45	46.98	49.88	54.31	58.52	61.35	61.06	58.22	53.51	49.72
21	46.63	44.79	45.53	47.09	50.00	54.42	58.73	61.35	60.90	58.20	53.41	49.67
22	46.62	44.81	45.59	47.02	50.04	54.52	58.95	61.30	60.80	58.05	53.24	49.54
23	46.60	44.82	45.51	47.10	50.08	54.71	59.03	61.21	60.63	57.92	53.04	49.49
24	46.53	44.81	45.55	47.21	50.13	54.87	59.05	61.12	60.52	57.88	52.95	49.48
25	46.43	44.76	45.51	47.20	50.21	55.11	59.10	61.11	60.44	57.72	52.86	49.27
26	46.31	44.62	45.40	47.38	50.36	55.40	59.26	61.20	60.31	57.70	52.88	49.08
27	46.15	44.52	45.24	47.38	50.48	55.61	59.40	61.30	60.22	57.62	52.92	48.90
28	46.02	44.52	45.11	47.32	50.61	55.81	59.52	61.27	60.02	57.53	52.89	48.76
29	46.00		45.04	47.43	50.79	56.08	59.66	61.32	59.91	57.40	52.88	48.49
30	46.02		45.00	47.43	50.93	56.40	59.77	61.37	59.78	57.24	52.84	48.23
31	46.00		44.92		51.10		59.84	61.51		57.01		48.06
Means	46.76	45.34	45.09	46.18	49.14	53.71	58.14	61.02	61.15	58.50	54.39	50.69

The mean of the twelve monthly values is 52°51.

(IV.)—Readings of a Thermometer whose bulb is sunk to the depth of 3.2 feet (3 French feet) below the surface of the soil, at Noon on every Day of the Year.

1906.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	43.70	43.04	41.02	41.60	45.55	53.58	59.11	63.30	63.09	57.89	53.66	50.30
2	42.93	43.04	41.27	41.91	45.52	53.58	58.89	63.48	63.41	57.74	53.54	50.01
3	42.76	43.05	41.50	42.20	45.60	53.60	58.80	63.57	63.75	57.91	53.50	49.53
4	42.68	43.02	41.60	42.32	45.92	53.49	58.92	63.77	63.94	58.28	53.15	49.48
5	43.08	42.70	41.72	42.52	46.51	53.79	59.20	63.72	63.99	58.33	52.75	49.46
6	43.66	42.35	41.89	42.74	46.93	53.92	59.48	63.74	64.05	58.53	52.40	49.54
7	44.07	42.02	42.32	43.10	47.47	54.07	59.75	63.80	63.88	58.70	51.91	49.16
8	44.11	41.79	42.80	43.33	48.00	54.26	60.13	64.02	63.78	58.64	51.78	48.56
9	43.91	41.59	43.20	43.50	48.42	54.65	60.58	64.10	63.78	58.73	51.63	48.00
10	43.92	41.37	43.28	44.00	48.96	55.08	60.80	64.32	63.62	58.70	51.93	47.57
11	43.74	41.16	43.21	44.20	49.12	55.46	60.89	64.29	63.31	58.65	51.83	46.92
12	43.50	41.10	43.12	44.57	49.12	55.74	60.86	64.21	62.78	58.65	51.51	46.39
13	43.42	41.00	43.04	45.18	49.60	55.94	60.80	64.20	62.43	58.52	51.03	46.11
14	43.71	40.67	42.58	45.82	50.04	56.04	60.72	64.01	62.21	58.22	50.59	45.82
15	43.61	40.48	42.12	46.22	50.44	55.94	60.79	63.96	62.10	57.66	50.41	45.38
16	43.67	40.43	42.27	46.24	50.64	55.76	60.87	63.79	61.80	57.09	50.23	45.05
17	43.57	40.52	42.76	46.18	50.61	55.62	61.12	63.39	61.35	56.85	50.18	44.67
18	43.57	41.12	43.38	46.22	50.39	55.60	61.40	63.10	60.89	56.78	50.05	44.73
19	43.60	41.31	43.68	46.21	50.11	55.72	61.50	62.72	60.60	56.69	49.73	45.12
20	43.37	41.50	43.60	46.07	50.04	56.18	61.76	62.56	60.45	56.53	49.41	45.26

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

1906.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
21	43·00	41·51	43·34	45·92	50·18	56·50	61·60	62·50	60·30	56·31	49·04	45·23
22	42·61	41·31	43·09	46·00	49·80	57·16	61·61	62·70	60·20	56·23	48·83	45·05
23	42·71	40·83	42·66	46·21	50·00	57·92	61·83	62·90	60·01	56·48	49·36	44·56
24	42·34	40·80	42·22	46·27	50·28	58·31	62·10	63·05	59·81	56·62	49·68	44·22
25	41·98	40·69	41·76	45·96	50·83	58·64	62·44	63·20	59·72	56·58	49·89	43·72
26	41·89	40·53	41·69	45·72	51·16	58·87	62·53	63·20	59·42	56·26	50·08	43·38
27	42·12	40·61	41·38	45·59	51·43	59·03	62·58	63·30	59·00	55·74	50·14	43·04
28	42·41	41·01	41·27	45·48	51·72	59·24	62·70	63·11	58·52	55·40	50·17	42·74
29	42·82		41·12	45·71	52·19	59·88	62·72	63·08	58·23	54·93	50·14	42·43
30	43·23		41·23	45·64	52·78	59·54	62·92	62·86	57·96	54·50	50·20	42·12
31	43·28		41·33		53·24		63·00	62·93		53·91		41·87
Means	43·19	41·45	42·30	44·75	49·44	56·10	61·05	63·45	61·61	57·16	50·96	45·98

The mean of the twelve monthly values is 51°45.

(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.

1906.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	35·6	43·0	42·2	42·9	43·9	54·9	54·0	67·9	69·2	48·0	42·0	36·0
2	39·0	43·0	44·2	41·9	45·1	53·0	57·0	68·7	69·3	53·4	42·0	35·0
3	41·0	42·0	39·1	43·0	48·8	57·0	58·0	65·0	69·7	53·3	41·9	40·0
4	45·0	39·0	46·0	43·0	50·0	57·1	62·0	67·8	67·0	53·4	40·0	40·0
5	46·0	37·9	41·8	44·7	50·2	54·1	63·0	63·3	57·0	55·9	40·0	39·3
6	45·7	37·0	45·5	45·2	51·0	57·0	63·0	65·4	60·0	52·8	38·3	35·0
7	43·0	37·4	46·4	44·4	54·0	57·3	64·2	67·9	62·3	53·1	41·0	33·0
8	43·9	38·9	46·1	46·0	55·0	58·2	63·3	69·0	60·8	53·2	42·8	32·0
9	43·0	35·9	43·1	47·2	55·1	60·2	64·8	66·4	60·0	53·2	42·0	32·0
10	41·2	38·9	42·0	47·2	50·0	59·0	63·1	66·1	55·0	53·2	39·0	28·0
11	38·9	39·4	45·0	47·0	51·0	55·0	59·2	61·7	53·6	54·2	36·1	28·9
12	42·9	37·3	41·0	51·6	56·6	57·9	58·2	62·3	54·0	53·5	33·8	32·2
13	45·0	36·7	38·2	52·0	57·0	57·0	58·9	67·5	56·6	53·8	34·9	30·4
14	45·1	36·1	38·3	48·7	56·0	54·0	61·0	62·4	55·0	42·6	36·2	29·8
15	44·0	39·0	43·2	46·2	51·9	54·0	61·1	60·9	53·4	44·0	38·3	28·8
16	43·7	41·0	46·1	47·0	52·0	54·0	59·2	57·4	54·3	46·2	37·5	35·0
17	42·2	43·0	47·0	47·2	48·9	54·8	65·2	57·4	49·0	47·1	39·8	34·1
18	44·1	40·3	45·6	45·2	49·0	58·3	66·1	55·0	53·2	47·5	37·0	35·1
19	41·0	41·3	42·2	44·4	50·4	58·2	59·7	54·7	53·2	44·0	32·0	34·0
20	37·8	39·6	41·3	44·0	51·0	63·7	57·2	59·3	53·2	41·4	33·2	30·0
21	41·0	37·3	40·0	48·8	50·4	64·0	58·0	64·8	53·3	47·0	39·2	31·0
22	39·6	36·3	38·8	48·8	51·0	65·0	66·5	67·3	53·3	53·2	44·1	28·0
23	36·1	37·3	37·0	46·0	55·0	66·1	68·4	66·0	54·2	54·2	42·0	27·0
24	36·0	36·1	36·9	43·2	57·6	61·0	66·2	65·0	53·6	53·6	40·0	26·9
25	40·4	40·3	38·8	43·0	55·0	61·3	63·2	60·8	47·6	44·2	40·0	27·2

(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.

1906.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	.	.	.	.	.	.	.	.	.	.	.	.
26	41.9	40.0	37.2	43.1	53.2	63.8	63.1	59.0	53.7	41.0	37.3	26.6
27	43.4	42.1	37.3	44.3	55.5	63.2	64.0	64.2	54.6	42.8	41.6	26.0
28	46.0	39.8	39.7	45.2	57.2	64.0	62.2	61.0	45.0	42.4	39.6	24.2
29	45.0		40.3	43.6	59.2	53.9	65.4	57.0	45.0	38.8	41.9	26.6
30	42.7		38.2	44.0	58.0	53.7	68.0	59.0	47.0	40.6	41.4	25.0
31	40.0		42.9		57.4		67.9	68.2		40.0		29.0
Means	41.9	39.1	41.7	45.6	52.8	58.4	62.3	63.2	55.8	48.4	39.2	31.2

The mean of the twelve monthly values is 48°30.

(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.

1906.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	.	.	.	.	.	.	.	.	.	.	.	.
1	33.0	46.6	47.1	48.8	47.6	58.0	63.2	75.1	84.6	62.8	50.7	42.9
2	41.4	45.0	48.1	44.0	48.9	54.0	67.8	78.5	84.5	61.3	49.7	45.1
3	44.7	41.7	42.2	44.1	58.2	65.0	68.2	72.8	84.1	59.9	50.0	52.0
4	48.8	38.1	49.7	52.0	57.0	60.0	71.9	72.0	74.6	63.0	47.7	52.3
5	48.9	37.3	48.8	58.3	59.2	57.5	74.0	69.6	60.2	66.3	48.3	44.8
6	45.0	34.3	55.1	54.8	55.1	64.6	74.2	73.9	67.7	62.0	45.3	41.4
7	41.4	38.9	58.6	55.1	61.3	68.2	74.8	75.8	70.4	63.0	51.6	40.2
8	44.1	43.2	49.7	56.2	70.2	68.6	69.2	80.3	71.8	60.2	51.7	41.3
9	47.2	34.8	44.9	53.6	62.6	70.0	72.2	70.8	66.7	59.2	51.8	37.7
10	41.2	46.1	45.0	48.1	49.8	66.0	70.9	72.3	64.2	64.9	47.2	33.3
11	38.3	41.8	49.5	61.0	54.6	58.4	64.9	66.3	63.2	65.6	43.1	36.9
12	46.1	36.8	38.2	69.6	65.2	62.1	64.4	67.9	65.1	60.2	39.7	42.8
13	45.8	38.2	35.0	65.2	69.1	59.8	69.0	76.5	67.1	58.7	42.0	39.4
14	46.4	39.0	39.6	50.1	66.2	52.8	70.9	67.2	65.0	48.0	44.3	38.1
15	45.0	40.0	53.0	53.2	52.7	55.2	68.8	66.2	59.7	54.9	49.1	34.2
16	45.2	46.1	52.2	60.0	51.2	60.4	68.1	65.6	56.6	57.9	45.1	41.0
17	43.1	42.8	55.6	55.3	47.2	63.6	75.4	63.5	58.5	57.3	50.0	46.3
18	48.2	40.2	47.7	44.1	55.1	68.8	75.0	63.5	61.0	59.1	44.9	45.6
19	41.3	43.9	42.2	46.9	56.1	60.1	62.8	62.3	58.4	52.8	38.3	42.6
20	33.7	41.1	43.3	49.9	49.7	74.0	61.4	67.0	61.2	51.1	40.7	36.6
21	44.0	37.1	39.8	59.2	52.3	73.2	66.1	74.0	60.1	62.1	53.3	35.2
22	38.7	38.8	38.4	51.2	53.2	74.6	74.7	79.6	61.0	65.0	58.6	33.6
23	31.4	37.0	36.1	50.0	65.0	75.6	77.1	74.3	58.6	60.1	52.8	27.6
24	35.1	35.9	35.4	42.8	64.0	63.2	70.4	67.9	57.7	60.8	50.3	34.2
25	45.9	47.3	40.6	46.1	60.0	65.1	72.0	64.7	58.2	51.4	50.2	34.0
26	47.9	46.0	38.1	48.2	54.1	73.8	72.4	65.7	56.9	50.0	43.4	32.9
27	47.4	44.8	38.2	52.2	60.4	73.1	72.0	72.6	60.0	51.7	53.2	33.1
28	49.1	40.0	43.2	48.4	66.2	70.4	73.1	67.4	55.2	52.0	50.1	33.1
29	48.9		44.0	48.3	68.1	51.3	73.7	69.6	57.5	47.4	53.1	34.8
30	43.5		40.0	49.8	65.6	59.9	75.6	71.8	60.3	48.9	51.6	31.7
31	38.7		47.9		61.2		71.3	84.8		47.6		38.7
Means	43.2	40.8	44.7	52.2	58.3	64.2	70.5	71.0	64.3	57.6	48.3	38.8

The mean of the twelve monthly values is 54°49.

ABSTRACT of the CHANGES of the DIRECTION of the WIND, as derived from the Records of OSLER'S ANEMOMETER in the Year 1906.

(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<sup>h</sup> to 24<sup>h</sup>.

Main data table with columns for Greenwich Civil Time, Change of Direction, Amount of Motion, and wind directions (From/To). It is divided into sections for January and February, with a 'Sums' row at the bottom.

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

Table with columns: Greenwich Civil Time (From, To), Change of Direction (From, To), Amount of Motion (Direct, Retrograde). Rows are organized by month: Feb.—cont., March, Mar.—cont., and April. Each row lists wind direction changes and associated motion values.

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

Table with columns for Greenwich Civil Time (From/To), Change of Direction (From/To), Amount of Motion (Direct/Retrograde), and sub-sections for Apr.—cont., May.—cont., and May. It lists wind direction changes and associated motion values.



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

Table with columns for Greenwich Civil Time, Change of Direction, Amount of Motion, and sub-columns for From/To directions and Direct/Retrograde motion. It is divided into sections for May, June, and July, with a final 'Sums' row at the bottom of each section.

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

Table with columns for Greenwich Civil Time, Change of Direction, Amount of Motion, and date. It is divided into three sections: July—cont., August, and Aug.—cont., each showing wind direction changes and motion amounts.



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

Table with columns: Greenwich Civil Time (From, To), Change of Direction (From, To), Amount of Motion (Direct, Retrograde), and direction names (e.g., S.S.W., N.N.W., S.W.). Includes sub-sections for Oct.—cont., November, and Nov.—cont., ending with a Sums row.

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

Table with columns: 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. Rows include dates from December 1st to 14th, with wind direction changes and motion amounts.

Excess of Motion in each Month.

Summary table showing Excess of Motion in each Month for 1906. Columns: Month, Direct, Retrograde. Rows: January to December.

The whole excess of direct motion for the year was 5895°.

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	1906.												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	18.5	14.1	15.0	9.1	9.5	7.7	7.6	9.6	8.2	9.5	12.4	12.5	11.1
2	17.6	14.3	15.2	9.1	9.6	7.7	7.8	8.6	8.4	9.8	12.6	12.1	11.1
3	17.3	14.0	14.6	8.2	9.1	7.4	7.2	9.3	7.7	10.1	12.3	11.8	10.8
4	17.8	14.8	14.6	9.2	9.5	7.5	7.6	8.7	7.9	10.3	12.9	12.5	11.1
5	16.7	14.1	14.5	9.8	9.1	7.9	7.6	8.8	8.1	10.2	11.8	12.5	10.9
6	16.6	14.9	14.2	9.3	9.5	8.0	7.7	9.0	8.2	10.5	12.5	13.3	11.1
7	16.8	14.8	15.0	9.5	10.3	8.4	7.7	8.6	8.6	10.3	11.7	12.8	11.2
8	15.5	14.6	15.4	9.8	10.6	9.2	8.4	9.8	8.8	10.7	11.7	13.5	11.5
9	15.8	14.8	16.8	10.4	11.7	10.1	9.6	11.3	9.0	10.7	11.5	14.4	12.2
10	16.5	15.3	17.7	11.6	12.2	10.8	10.5	12.2	9.9	12.1	11.7	14.8	12.9
11	17.7	16.0	17.2	13.1	12.2	11.0	10.7	12.1	10.7	11.9	12.0	14.5	13.3
Noon.	18.5	17.7	18.0	14.5	12.7	11.4	10.9	12.8	10.8	12.1	13.1	15.6	14.0
13 <sup>h</sup>	18.5	18.6	18.8	14.3	13.0	12.2	11.7	13.1	11.6	13.6	15.3	15.8	14.7
14	17.6	18.3	18.7	15.2	13.3	12.4	12.4	13.7	11.9	12.9	13.7	15.0	14.6
15	17.4	17.6	18.5	15.7	13.4	12.7	12.7	14.0	12.1	12.6	14.2	15.0	14.7
16	16.7	17.2	18.6	15.4	13.7	12.6	12.8	14.2	11.7	11.9	14.1	14.1	14.4
17	16.1	16.9	18.4	14.9	14.0	12.2	12.8	14.4	11.2	11.7	14.1	13.3	14.2
18	16.6	16.0	17.2	14.4	13.6	11.7	12.7	13.3	10.3	10.3	13.7	13.9	13.6
19	17.4	14.3	17.2	12.6	12.3	10.6	11.0	11.7	9.9	9.9	13.8	13.7	12.9
20	16.7	15.1	16.6	11.5	11.4	9.7	10.6	10.9	10.2	9.5	13.4	13.6	12.4
21	18.1	14.4	15.9	10.6	10.7	8.7	9.5	10.6	9.2	9.1	12.9	13.3	11.9
22	17.4	13.9	15.0	9.9	10.0	8.4	9.1	10.1	8.6	9.2	12.5	13.1	11.4
23	17.8	14.0	15.2	9.6	9.9	8.1	8.7	9.7	8.4	9.8	13.2	13.2	11.5
Midnight.	17.7	14.8	14.2	9.5	9.9	7.4	8.2	9.7	7.9	9.2	12.9	13.2	11.2
Means.....	17.2	15.4	16.4	11.6	11.3	9.7	9.8	11.1	9.6	10.7	12.9	13.6	12.4
Greatest Hourly Measures.....	50	38	43	38	27	29	28	39	29	26	38	37	...
Least Hourly Measures.....	1	2	1	0	0	0	0	0	0	0	0	0	...

## 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.)

1906.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	...	+ 743	+ 674	+1081	+1120	+ 572	+ 468	+ 278	+ 428	+ 295	+ 379	+ 954
2	...	+ 917	+ 790	+ 918	+ 489	+ 812	+ 386	+ 172	+ 324	+ 104	+ 385	+ 553
3	...	+ 976	+1047	+ 831	+ 620	+ 577	+ 384	...	+ 353	+ 413	+ 554	+ 335
4	...	+ 855	+ 739	+ 767	+ 558	+ 357	+ 455.	...	+ 482	+ 235	- 104	+ 405
5	+ 241	+1190	+ 578	+ 699	+ 723	+ 614	+ 468	+ 309	+ 454	+ 224	+ 476	...
6	+ 389	+1275	+ 549	+ 813	+ 392	+ 730	+ 401	+ 100	+ 356	+ 307	+ 258	+ 420
7	+ 503	+1392	+ 638	+ 795	+ 319	+ 685	+ 497	+ 250	+ 343	+ 182	+ 304	+1127
8	+ 780	+ 944	+ 390	+ 628	+ 620	+ 680	+ 379	+ 310	+ 557	+ 235	+ 49	+ 802
9	+ 544	+1592	+1064	+ 935	+ 620	+ 681	+ 405	+ 529	+ 466	+ 169	+ 233	+ 568
10	+ 845	+ 669	+ 253	+ 797	+ 625	+ 473	+ 602	+ 566	+ 820	+ 155	+ 654	+1438
11	+ 965	+ 715	+ 330	+ 816	+ 403	+ 748	+ 760	+ 616	+ 580	+ 223	+ 824	+1095
12	+ 481	+1470	+1190	+ 671	+ 455	+ 693	+ 817	+ 283	+ 481	+ 305	+ 829	+ 716
13	+ 490	+1289	+1340	+ 562	+ 310	+ 789	+ 520	+ 134	+ 353	+ 587	+ 697	+ 775
14	+ 577	+1435	+1125	+ 957	+ 522	+ 956	+ 520	+ 417	+ 455	+ 737	+ 808	+ 934
15	+ 387	+1061	+ 472	+ 810	+ 788	+ 982	+ 260	+ 348	+ 390	+ 625	+ 449	...
16	+ 279	+ 829	+ 287	+ 733	+ 401	+ 566	+ 384	+ 335	+ 387	+ 512	+ 362	...
17	+ 609	+ 94	+ 526	+1002	+ 228	+ 357	+ 334	+ 616	+ 574	+ 428	+ 372	+ 547
18	+ 400	+ 401	+ 746	+ 469	+ 195	+ 434	+ 377	+ 979	...	+ 363	+ 681	+ 430
19	+1309	+ 122	+ 991	+1240	+ 132	+ 612	+ 494	+ 524	...	+ 495	+ 916	...
20	+1222	+1293	+ 945	+ 935	+ 85	+ 515	+ 713	+ 324	...	+ 525	+1042	+ 720
21	+ 224	+1402	+1205	+ 788	...	+ 497	+ 564	+ 273	+ 499	...	+ 281	+ 755
22	+1178	+ 842	+1330	+ 664	+ 191	+ 470	+ 179	+ 364	+ 606	...	+ 178	+ 878
23	+1299	+ 965	+1477	+1261	...	+ 305	+ 220	+ 338	...	+ 275	+ 228	+ 931
24	+1428	+1169	+1380	+1137	...	+ 293	+ 622	+ 301	+ 571	+ 370	+ 262	+ 879
25	...	+ 842	+ 994	+ 821	...	+ 288	+ 412	+ 562	+ 614	+ 634	+ 263	+1091
26	...	+1055	+1380	+1172	+ 119	+ 287	+ 296	+ 349	+ 726	+ 671	+ 434	+ 780
27	...	+ 855	+1214	+1234	...	+ 367	+ 257	+ 396	+ 557	+ 727	+ 374	+1011
28	+ 464	+1135	+1399	+ 980	...	+ 342	+ 230	+ 390	+ 620	+ 305	+ 402	+ 987
29	+ 533		+1470	+1001	...	+ 426	+ 221	+ 440	+ 489	+ 625	+ 139	+ 837
30	+1075		+1918	+ 919	+ 512	+ 802	+ 162	+ 351	+ 310	+ 88	+ 407	+ 594
31	+1163		+1334		+ 661		+ 208	+ 327		+ 578		+ 598
Means	+ 724	+ 983	+ 960	+ 881	+ 462	+ 564	+ 419	+ 386	+ 492	+ 393	+ 438	+ 784

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.	1906.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight.	+ 567	+ 1021	+ 986	+ 949	+ 515	+ 656	+ 481	+ 436	+ 543	+ 300	+ 386	+ 646	+ 624	
1 <sup>h</sup>	+ 435	+ 865	+ 919	+ 851	+ 485	+ 635	+ 451	+ 416	+ 497	+ 308	+ 380	+ 608	+ 571	
2	+ 374	+ 779	+ 860	+ 794	+ 441	+ 611	+ 423	+ 373	+ 460	+ 268	+ 378	+ 603	+ 530	
3	+ 409	+ 731	+ 784	+ 773	+ 413	+ 596	+ 385	+ 324	+ 410	+ 248	+ 355	+ 654	+ 507	
4	+ 442	+ 633	+ 788	+ 766	+ 401	+ 544	+ 358	+ 328	+ 428	+ 263	+ 338	+ 569	+ 488	
5	+ 443	+ 661	+ 785	+ 796	+ 404	+ 479	+ 333	+ 335	+ 393	+ 292	+ 301	+ 559	+ 482	
6	+ 504	+ 741	+ 754	+ 837	+ 428	+ 517	+ 311	+ 319	+ 359	+ 329	+ 293	+ 602	+ 499	
7	+ 543	+ 768	+ 769	+ 871	+ 448	+ 483	+ 312	+ 316	+ 382	+ 352	+ 352	+ 672	+ 522	
8	+ 632	+ 821	+ 816	+ 869	+ 460	+ 439	+ 334	+ 331	+ 420	+ 382	+ 397	+ 718	+ 552	
9	+ 777	+ 999	+ 956	+ 896	+ 497	+ 510	+ 405	+ 404	+ 518	+ 425	+ 441	+ 807	+ 636	
10	+ 920	+ 1101	+ 1148	+ 1015	+ 538	+ 659	+ 487	+ 454	+ 610	+ 438	+ 487	+ 880	+ 728	
11	+ 974	+ 1142	+ 1193	+ 1013	+ 478	+ 673	+ 533	+ 449	+ 613	+ 436	+ 502	+ 867	+ 739	
Noon.	+ 926	+ 1111	+ 1116	+ 893	+ 364	+ 542	+ 437	+ 375	+ 527	+ 393	+ 418	+ 862	+ 664	
13 <sup>h</sup>	+ 896	+ 1063	+ 1085	+ 731	+ 363	+ 533	+ 400	+ 350	+ 451	+ 403	+ 357	+ 856	+ 624	
14	+ 936	+ 951	+ 960	+ 786	+ 401	+ 527	+ 368	+ 360	+ 377	+ 432	+ 359	+ 898	+ 613	
15	+ 951	+ 1032	+ 1015	+ 781	+ 496	+ 539	+ 375	+ 358	+ 404	+ 460	+ 426	+ 881	+ 643	
16	+ 942	+ 1096	+ 891	+ 788	+ 411	+ 508	+ 395	+ 390	+ 460	+ 468	+ 482	+ 937	+ 647	
17	+ 942	+ 1125	+ 896	+ 807	+ 459	+ 473	+ 417	+ 363	+ 502	+ 467	+ 499	+ 985	+ 661	
18	+ 883	+ 1151	+ 988	+ 848	+ 505	+ 518	+ 428	+ 387	+ 516	+ 477	+ 543	+ 954	+ 683	
19	+ 758	+ 1202	+ 1022	+ 933	+ 510	+ 536	+ 439	+ 398	+ 547	+ 450	+ 571	+ 946	+ 693	
20	+ 774	+ 1211	+ 1064	+ 1058	+ 525	+ 544	+ 469	+ 390	+ 584	+ 488	+ 577	+ 869	+ 713	
21	+ 784	+ 1118	+ 1095	+ 1073	+ 541	+ 631	+ 499	+ 464	+ 624	+ 450	+ 586	+ 837	+ 725	
22	+ 792	+ 1134	+ 1111	+ 1046	+ 518	+ 686	+ 513	+ 483	+ 618	+ 462	+ 574	+ 800	+ 728	
23	+ 782	+ 1135	+ 1050	+ 974	+ 485	+ 688	+ 508	+ 451	+ 569	+ 437	+ 508	+ 798	+ 699	
24	+ 613	+ 1021	+ 1001	+ 947	+ 472	+ 652	+ 475	+ 433	+ 508	+ 307	+ 399	+ 708	+ 628	
Means	0 <sup>h</sup> .-23 <sup>h</sup> .	+ 724	+ 983	+ 960	+ 881	+ 462	+ 564	+ 419	+ 386	+ 492	+ 393	+ 438	+ 784	+ 624
	1 <sup>h</sup> .-24 <sup>h</sup> .	+ 726	+ 983	+ 961	+ 881	+ 460	+ 563	+ 419	+ 385	+ 491	+ 393	+ 438	+ 786	+ 624
Number of Days employed.	24	28	31	30	24	30	31	29	26	29	30	27	...	



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<sup>m</sup>.020. The scale employed is arbitrary: the sign + indicates positive potential.)

Hour, Greenwich Civil Time.	1906.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight.	+ 263	+ 1011	+ 1082	+ 1051	+ 458	+ 698	+ 345	+ 350	+ 440	+ 266	+ 373	+ 568	+ 575	
1 <sup>h</sup>	+ 125	+ 756	+ 1024	+ 696	+ 444	+ 657	+ 335	+ 313	+ 373	+ 234	+ 343	+ 566	+ 489	
2	+ 19	+ 624	+ 899	+ 576	+ 434	+ 613	+ 312	+ 295	+ 399	+ 135	+ 348	+ 587	+ 437	
3	+ 165	+ 592	+ 868	+ 621	+ 442	+ 627	+ 288	+ 213	+ 380	+ 81	+ 331	+ 704	+ 443	
4	+ 201	+ 396	+ 842	+ 720	+ 378	+ 590	+ 212	+ 162	+ 340	+ 138	+ 318	+ 577	+ 406	
5	+ 185	+ 449	+ 819	+ 814	+ 350	+ 368	+ 140	+ 188	+ 276	+ 212	+ 231	+ 570	+ 383	
6	+ 260	+ 524	+ 790	+ 764	+ 416	+ 580	+ 120	+ 188	+ 204	+ 253	+ 211	+ 618	+ 411	
7	+ 292	+ 473	+ 815	+ 824	+ 458	+ 432	+ 103	+ 207	+ 294	+ 255	+ 330	+ 697	+ 432	
8	+ 405	+ 493	+ 841	+ 820	+ 454	+ 295	+ 92	+ 267	+ 393	+ 269	+ 406	+ 717	+ 454	
9	+ 505	+ 638	+ 966	+ 654	+ 440	+ 485	+ 103	+ 360	+ 546	+ 310	+ 446	+ 786	+ 520	
10	+ 590	+ 615	+ 1141	+ 971	+ 402	+ 570	+ 177	+ 390	+ 710	+ 316	+ 456	+ 855	+ 599	
11	+ 611	+ 694	+ 1195	+ 1169	+ 238	+ 480	+ 353	+ 362	+ 770	+ 385	+ 426	+ 789	+ 623	
Noon.	+ 495	+ 803	+ 1148	+ 1186	- 120	+ 505	+ 317	+ 323	+ 673	+ 286	+ 289	+ 812	+ 560	
13 <sup>h</sup>	+ 503	+ 734	+ 1134	+ 650	+ 106	+ 730	+ 350	+ 447	+ 484	+ 341	+ 190	+ 813	+ 540	
14	+ 664	+ 565	+ 851	+ 1130	+ 342	+ 665	+ 378	+ 468	+ 261	+ 445	+ 196	+ 875	+ 570	
15	+ 635	+ 723	+ 842	+ 1266	+ 480	+ 727	+ 350	+ 457	+ 357	+ 497	+ 316	+ 845	+ 625	
16	+ 601	+ 742	+ 622	+ 1360	+ 116	+ 665	+ 367	+ 572	+ 459	+ 450	+ 411	+ 903	+ 606	
17	+ 695	+ 719	+ 608	+ 1326	+ 362	+ 358	+ 405	+ 452	+ 501	+ 362	+ 389	+ 971	+ 596	
18	+ 602	+ 794	+ 799	+ 1069	+ 432	+ 492	+ 395	+ 413	+ 434	+ 368	+ 467	+ 937	+ 600	
19	+ 286	+ 952	+ 808	+ 1117	+ 364	+ 490	+ 320	+ 367	+ 393	+ 316	+ 521	+ 941	+ 573	
20	+ 370	+ 957	+ 922	+ 1326	+ 332	+ 418	+ 370	+ 227	+ 469	+ 461	+ 533	+ 821	+ 601	
21	+ 433	+ 770	+ 950	+ 1290	+ 338	+ 710	+ 363	+ 482	+ 539	+ 425	+ 558	+ 755	+ 634	
22	+ 464	+ 941	+ 1017	+ 1183	+ 276	+ 720	+ 302	+ 552	+ 520	+ 476	+ 573	+ 686	+ 642	
23	+ 553	+ 884	+ 993	+ 1067	+ 284	+ 727	+ 305	+ 485	+ 486	+ 504	+ 456	+ 735	+ 623	
24	+ 383	+ 793	+ 905	+ 1033	+ 388	+ 615	+ 277	+ 493	+ 393	+ 270	+ 436	+ 643	+ 552	
Means {	0 <sup>h</sup> .-23 <sup>h</sup> .	+ 413	+ 702	+ 916	+ 985	+ 343	+ 567	+ 283	+ 356	+ 446	+ 324	+ 380	+ 755	+ 539
	1 <sup>h</sup> .-24 <sup>h</sup> .	+ 418	+ 693	+ 908	+ 985	+ 340	+ 563	+ 281	+ 362	+ 444	+ 325	+ 383	+ 758	+ 538
Number of Days employed.	11	12	13	7	5	4	4	6	7	11	14	15	...	

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.	1906.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight.	+ 970	+ 934	+1099	+ 957	+ 537	+ 660	+ 508	+ 476	+ 577	+ 406	+ 461	+ 772	+ 696	
1 <sup>h</sup>	+ 804	+ 990	+1008	+ 940	+ 512	+ 641	+ 480	+ 458	+ 541	+ 364	+ 437	+ 703	+ 656	
2	+ 786	+1047	+ 950	+ 890	+ 465	+ 625	+ 453	+ 401	+ 477	+ 350	+ 414	+ 684	+ 629	
3	+ 710	+ 979	+ 805	+ 834	+ 441	+ 615	+ 415	+ 354	+ 412	+ 342	+ 382	+ 668	+ 580	
4	+ 770	+ 963	+ 919	+ 792	+ 453	+ 557	+ 400	+ 368	+ 438	+ 366	+ 385	+ 613	+ 583	
5	+ 771	+ 974	+ 942	+ 791	+ 451	+ 523	+ 382	+ 364	+ 458	+ 326	+ 372	+ 636	+ 585	
6	+ 800	+1027	+ 924	+ 851	+ 449	+ 535	+ 360	+ 337	+ 420	+ 440	+ 390	+ 648	+ 594	
7	+ 836	+1053	+ 872	+ 866	+ 462	+ 532	+ 360	+ 327	+ 421	+ 468	+ 397	+ 737	+ 611	
8	+ 899	+1106	+ 852	+ 860	+ 487	+ 488	+ 380	+ 322	+ 436	+ 499	+ 417	+ 840	+ 632	
9	+1083	+1344	+ 978	+ 943	+ 525	+ 550	+ 465	+ 394	+ 502	+ 530	+ 453	+ 957	+ 727	
10	+1264	+1563	+1199	+1001	+ 585	+ 678	+ 557	+ 453	+ 566	+ 560	+ 512	+1050	+ 832	
11	+1329	+1579	+1268	+ 942	+ 557	+ 695	+ 583	+ 462	+ 547	+ 566	+ 551	+1102	+ 848	
Noon.	+1318	+1517	+1178	+ 766	+ 503	+ 528	+ 470	+ 407	+ 457	+ 520	+ 522	+1062	+ 771	
13 <sup>h</sup>	+1252	+1369	+1120	+ 737	+ 447	+ 480	+ 416	+ 370	+ 424	+ 490	+ 475	+1039	+ 718	
14	+1218	+1261	+1057	+ 683	+ 429	+ 462	+ 371	+ 339	+ 410	+ 461	+ 456	+1047	+ 683	
15	+1281	+1333	+1176	+ 636	+ 523	+ 466	+ 388	+ 325	+ 417	+ 458	+ 477	+1049	+ 711	
16	+1298	+1442	+1167	+ 622	+ 495	+ 459	+ 415	+ 350	+ 479	+ 514	+ 507	+1107	+ 738	
17	+1202	+1511	+1135	+ 682	+ 478	+ 443	+ 437	+ 372	+ 521	+ 579	+ 552	+1149	+ 755	
18	+1159	+1481	+1173	+ 776	+ 487	+ 490	+ 452	+ 391	+ 550	+ 596	+ 552	+1139	+ 771	
19	+1172	+1536	+1230	+ 879	+ 511	+ 509	+ 477	+ 395	+ 607	+ 582	+ 557	+1122	+ 798	
20	+1101	+1564	+1217	+ 980	+ 547	+ 543	+ 503	+ 418	+ 637	+ 554	+ 561	+1100	+ 810	
21	+1083	+1569	+1242	+1015	+ 576	+ 604	+ 535	+ 443	+ 664	+ 524	+ 554	+1130	+ 828	
22	+1079	+1595	+1271	+1000	+ 563	+ 670	+ 552	+ 448	+ 663	+ 520	+ 541	+1130	+ 836	
23	+1036	+1437	+1217	+ 906	+ 503	+ 671	+ 543	+ 428	+ 611	+ 460	+ 511	+1043	+ 781	
24	+ 933	+1260	+1106	+ 884	+ 448	+ 649	+ 508	+ 407	+ 558	+ 427	+ 464	+ 933	+ 715	
Means {	0 <sup>h</sup> .-23 <sup>h</sup> .	+1051	+1299	+1083	+ 848	+ 499	+ 559	+ 454	+ 392	+ 510	+ 478	+ 476	+ 939	+ 716
	1 <sup>h</sup> .-24 <sup>h</sup> .	+1049	+1312	+1084	+ 845	+ 496	+ 559	+ 454	+ 389	+ 509	+ 479	+ 477	+ 945	+ 716
Number of Days employed.	9	8	10	21	15	20	24	20	18	9	12	9	...	

AMOUNT OF RAIN COLLECTED in each MONTH of the YEAR 1906.										
MONTH, 1906.	Number of Rainy Days.	Monthly Amount of Rain collected in each Gauge.								
		Self- registering Gauge of Osler's Anemometer.	Second Gauge at Osler's Anemometer.	On the roof of the Octagon Room.	On the roof of the Magnetic Observatory.	On the roof of the Photographic Thermometer Shed.	Gauges partly sunk in the ground.			
		No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	In Magnetic Pavilion Enclosure. No. 6.	In Observatory Grounds. No. 7.	No. 8.	
		in.	in.	in.	in.	in.	in.	in.	in.	
January.....	18	1.782	1.859	2.761	3.031	3.560	3.713	3.584	3.749	
February.....	18	0.708	0.733	1.198	1.446	1.726	1.804	1.732	1.819	
March.....	18	0.313	0.337	0.652	0.812	0.963	1.093	0.948	...	
April.....	9	0.314	0.297	0.502	0.558	0.647	0.672	0.650	...	
May.....	12	0.686	0.733	1.184	1.388	1.474	1.565	1.505	...	
June.....	7	1.602	1.817	2.090	2.581	2.681	2.801	2.649	...	
July.....	7	0.213	0.208	0.315	0.376	0.415	0.414	0.404	...	
August.....	8	0.954	0.944	1.120	1.272	1.301	1.388	1.363	...	
September.....	11	1.237	1.255	1.610	1.846	1.931	1.971	1.931	...	
October.....	17	2.212	2.088	2.670	2.871	3.039	3.040	3.050	...	
November.....	17	2.219	2.388	3.075	3.649	3.996	4.114	3.959	...	
December.....	19	0.826	0.864	1.482	1.542	1.963	2.162	2.032	...	
Sums.....	161	13.066	13.523	18.659	21.372	23.696	24.737	23.807	...	
Height of receiving Surface	above the ground	...	ft. in. 50.8	ft. in. 50.8	ft. in. 38.4	ft. in. 21.6	ft. in. 10.0	ft. in. 0.5	ft. in. 0.5	ft. in. 0.5
		above mean sea level	...	ft. in. 205.6	ft. in. 205.6	ft. in. 193.2	ft. in. 176.4	ft. in. 164.10	ft. in. 155.3	ft. in. 155.3

A new gauge similar to No. 6 was brought into use on March 1 at <sup>o</sup>h Civil Time to replace the old gauges Nos. 7 and 8. New gauges also similar to No. 6 were substituted on November 1 at <sup>o</sup>h Civil Time for the old gauges Nos. 3, 4 and 5.

ROYAL OBSERVATORY, GREENWICH.

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OBSERVATIONS

OF

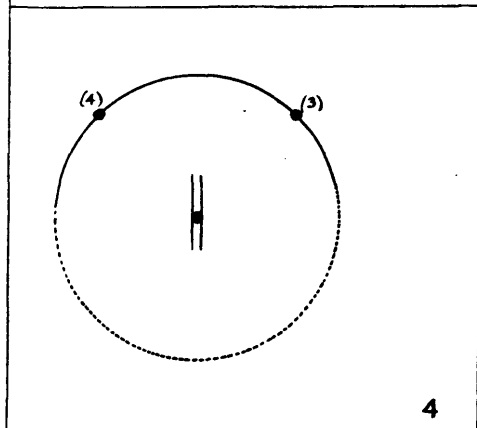
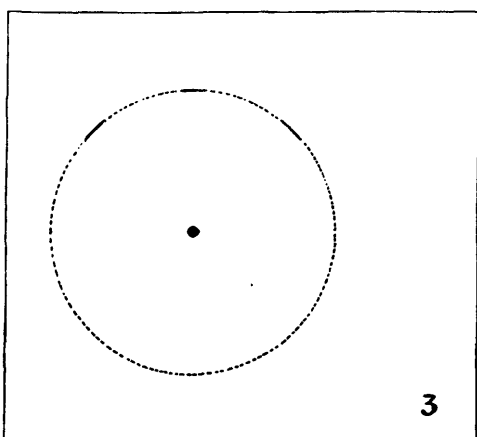
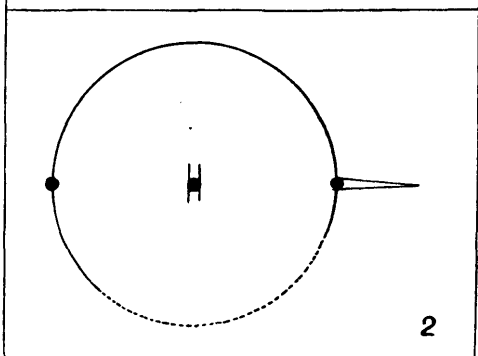
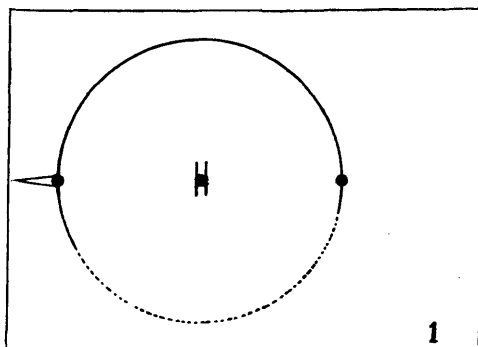
P A R H E L I A.

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1906.

OBSERVATIONS OF PARHELIA MADE AT THE ROYAL OBSERVATORY, GREENWICH,  
IN THE YEAR 1906.

## THE PARHELIA OF 1906 MAY 3.



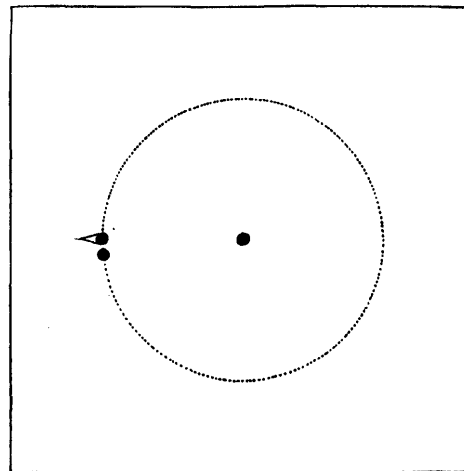
- | h  | m   |  |
|----|-----|--|
| 18 | 0.  | A partial solar halo is seen with mock suns on the halo right and left of the sun, the latter throws out a tapering spur about $5^\circ$ in length. A sun-pillar is also visible $3^\circ$ above the sun and $2^\circ$ below. The halo and especially the left mock sun are prismatically coloured, red being nearest the sun. |
| 18 | 3.  | The left spur disappears.  |
| 18 | 4.  | A spur appears to the right and extends for a distance of $12^\circ$ from the mock sun.  |
| 18 | 5.  | The right mock sun disappears but the spur extends from a point horizontal with the sun and $5^\circ$ outside the halo, for a distance of fully $10^\circ$ .   |
| 18 | 8.  | The left spur has again become visible and the blue of the mock sun has disappeared.   |
| 18 | 9.  | The right mock sun becomes visible again as a diffused patch and the left spur has contracted, leaving the mock sun as an elongated patch $2^\circ$ in length and almost $1^\circ$ in breadth.   |
| 18 | 11. | The sun-pillar is traceable to a height of $12^\circ$ .  |
| 18 | 12. | Both mock suns are covered by clouds.  |
| 18 | 13. | Halo brilliantly coloured.   |
| 18 | 16. | Sun is covered with clouds and the sun-pillar disappears; the halo fading.   |
| 18 | 18. | The halo is visible only in three distinct patches of equal size and intensity. They are about $5^\circ$ in length and their position is shown on the accompanying diagram 3.  |
| 18 | 20. | The above patches still remain but are fading.   |
| 18 | 23. | The patches disappear.   |
| 18 | 27. | The halo reappears and the sun-pillar is seen to extend $5^\circ$ above and $2^\circ$ below the sun.   |
| 18 | 28. | The halo is brightening and extending. The sun-pillar extends $6^\circ$ above and $4^\circ$ below the sun.   |
| 18 | 31. | A bright mock sun appears as shown by (3) on diagram 4.  |
| 18 | 34. | A fainter mock sun appears at a corresponding position to the left of the vertical as also shown on diagram 4.   |
| 18 | 38. | The sun-pillar is now only visible above the sun, owing to clouds.   |
| 18 | 40. | The mock sun (4) is covered by cloud and (3) is becoming diffused. Halo and sun-pillar are fading.   |
| 18 | 45. | The clouds have now covered the western sky, preventing any further observation.   |

HENRY G. S. BARRETT.

## THE PARHELION OF 1906 MAY 7.

- h m  
 17 45. A bright parhelion is observed  $22^\circ$  to the left of the sun.  
 18 5. Another mock sun appears about  $2^\circ$  below the first, which now shows a tapering spur, some  $2^\circ$  or  $3^\circ$  in length away from the sun. The phenomena remain visible more or less brightly till  $18^h 30^m$ .

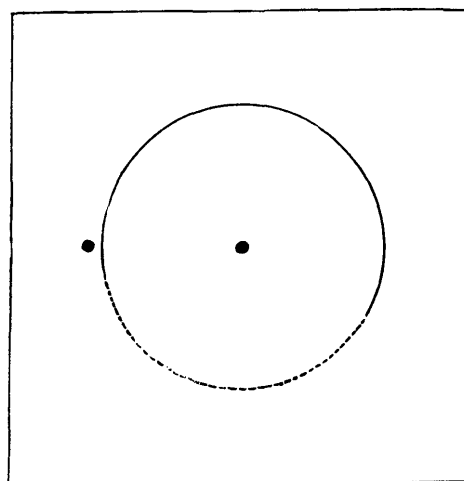
DAVID J. R. EDNEY.



## THE PARHELION OF 1906 OCTOBER 10.

- h m  
 11 55. A bright prismatically coloured solar halo was seen with a mock sun to the left of the sun and about  $1\frac{1}{2}^\circ$  outside the halo. The halo and mock sun brightened considerably by  $12^h$ , but the mock sun faded after  $12^h 7^m$ , though the halo remained visible.

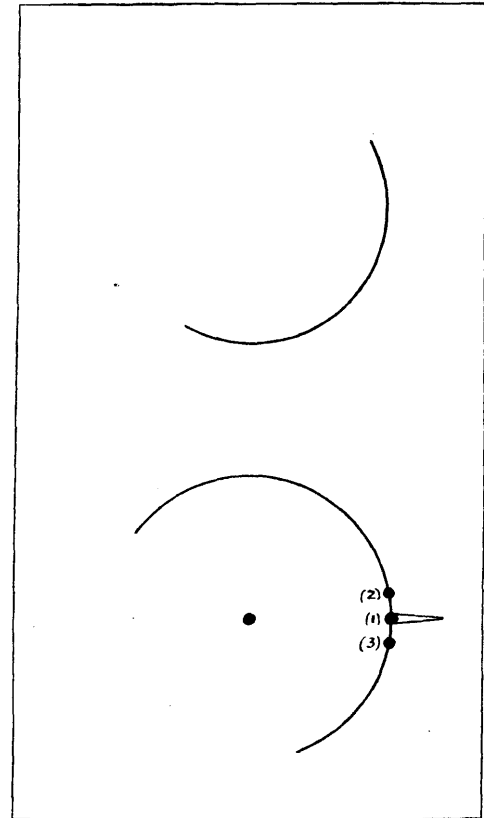
HENRY G. S. BARRETT.



## THE PARHELIA OF 1906 OCTOBER 18.

The ordinary  $22^\circ$  halo was seen at intervals during the day since  $8^h 30^m$ .

- h m
- 15 15. The halo is seen with a bright mock sun (1) on it. A tapering spur is thrown out for a length of  $3\frac{1}{2}^\circ$ .
- 15 17. Another mock sun (2) has formed at a place  $4^\circ$  above the first mock sun. About a minute later another formed at a similar distance below it. There has also formed a portion of a halo, of which the centre is apparently the zenith. It is of the approximate radius of  $20^\circ$ . The mock sun and circle are prismatically coloured with the red nearest the sun.
- 15 20. The spur has increased to a length of  $7^\circ$ . The mock suns (2) and (3) have disappeared.
- 15 21. The halo and zenithal halo have now disappeared, but the mock sun and spur are very brilliant, the former being brightly coloured with red on the edge nearest the sun.
- 15 22. The halo is now forming below the mock sun, and is also coloured.
- 15 23. The halo and mock sun are now becoming faint.
- 15 24. The zenithal halo is now forming, and is brightly coloured, red being nearest the sun.
- 15 25. Nimbus coming up from the south-west and covering the mock sun and lower portion of the halo.
- 15 27. The zenithal halo disappears.
- 15 30. The zenithal halo reappears, but is broken.
- 15 32. Clouds have now covered the zenithal halo.



HENRY G. S. BARRETT.

ROYAL OBSERVATORY, GREENWICH.

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OBSERVATIONS

OF

LUMINOUS METEORS.

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1906.



Month and Day, 1906.	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 Refer- ence.	
April	20	h m s 20. 47. 46	S.	2	Bluish-white	1.5	Faint	15	1
	"	20. 58. 49	H.B.	3	...	0.5	None	10	2
	"	21. 7. 18	P.	2	White	0.8	None	5	3
	"	21. 20. 29	P.&H.B.	3	White	0.6	None	7	4
	"	21. 34. 25	S.	2	Bluish-white	1.0	Slight	15	5
	"	21. 48. 30	H.P.	3	...	0.5	None	10	6
	"	21. 50. 25	P.&H.B.	3	Bluish-white	0.6	Slight	8	7
	"	21. 58. 27	S., P.&H.B.	4	...	0.5	None	7	8
	"	22. 6. 40	H.B.	4	...	0.4	Slight	5	9
	"	22. 7. 42	P.	3	...	0.5	None	5	10
	"	22. 8. 40	S., P.&H.B.	2	Bluish-white	0.6	Slight	12	11
April	21	20. 50. 7	S.	2	...	1.0	None	10	12
	"	21. 1. 54	H.B.	4	...	0.5	None	4	13
	"	21. 10. 30	P.	3	Bluish-white	0.7	Faint	6	14
	"	21. 22. 59	S., P.&H.B.	2	Bluish-white	1.0	Slight	15	15
	"	21. 30. 16	H.B.	3	...	0.7	None	8	16
	"	21. 32. 39	H.B.	2	White	0.4	Slight	2	17
	"	21. 35. 46	S., P.&H.B.	2	White	0.5	Slight	10	18
April	22	20. 43. 48	S.&P.	2	Bluish-white	1.2	Slight	15	19
	"	21. 0. 34	P.&H.B.	3	White	0.7	None	8	20
	"	21. 14. 37	S.	3	...	0.5	None	5	21
	"	21. 30. 15	H.B.	4	...	0.4	None	5	22
	"	21. 35. 8	P.&H.B.	2	White	0.8	Slight	10	23
	"	21. 37. 48	H.B.	3	...	0.5	None	6	24
	"	21. 38. 23	S.	2	Bluish-white	1.0	None	15	25
	"	21. 57. 55	S.&P.	3	...	0.7	Slight	10	26
	"	22. 12. 55	S., P.&H.B.	3	White	0.5	None	10	27
	"	22. 22. 41	P.&H.B.	4	...	0.4	None	5	28
	"	22. 34. 11	H.B.	3	...	0.5	None	5	29
	"	22. 39. 37	S.&P.	2	...	0.4	None	5	30
	"	22. 43. 15	S., P.&H.B.	3	White	1.0	Slight	10	31
	"	22. 50. 11	H.B.	3	Bluish-white	0.5	None	5	32
	"	22. 53. 47	S.	2	White	1.4	Slight	15	33
	"	22. 58. 45	P.&H.B.	3	Bluish-white	0.5	None	7	34
	"	23. 2. 23	S.&P.	2	White	0.8	Slight	7	35
	"	23. 3. 38	S.&P.	3	...	0.8	None	12	36
	"	23. 4. 43	H.B.	2	Bluish-white	0.5	Slight	6	37
	"	23. 8. 36	H.B.	3	Bluish-white	0.5	None	5	38
	"	23. 10. 26	H.B.	2	...	0.4	...	...	39
	"	23. 12. 39	S.&P.	2	Bluish-white	0.8	Slight	12	40
	"	23. 19. 20	S.&P.	3	White	0.7	None	10	41
	"	23. 23. 9	S.	2	Bluish-white	1.5	Slight	20	42
	"	23. 25. 21	S.&H.B.	2	White	0.8	Slight	10	43
	"	23. 30. 26	P.&H.B.	3	...	0.5	Slight	8	44
	"	23. 38. 10	S., P.&H.B.	2	White	1.5	Bright	25	45
	"	23. 43. 52	H.B.	4	...	0.4	None	4	46
"	23. 51. 55	H.B.	2	White	0.5	Slight	4	47	
"	23. 54. 1	H.B.	3	...	0.4	None	5	48	
"	23. 58. 22	S.	1	Bluish-white	0.7	Bright	10	49	
April	23	0. 5. 56	S., P.&H.B.	3	White	0.5	Slight	8	50
	"	0. 9. 20	P.&H.B.	4	...	0.5	None	5	51
	"	0. 16. 38	S.&P.	3	White	0.8	None	10	52

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

No. for Reference.	Path of Meteor in the Sky.
1	From a point near $\gamma$ Draconis towards $\gamma$ Ursæ Majoris.
2	From a point near $\pi$ Herculis towards $\nu$ Coronæ Borealis.
3	From a point near $\kappa$ Lyræ in the direction of $\epsilon$ Herculis.
4	From a point near $\gamma$ Draconis passed over $\nu$ Draconis.
5	From a point near $\gamma$ Boötis towards $\gamma$ Comæ Berenices.
6	From 27 Comæ Berenices towards $\sigma$ Virginis.
7	From a point $\frac{1}{3}$ distance from $\tau^1$ Serpentis to 45 Boötis towards P. XIV. 69.
8	From $\beta$ Herculis towards $\beta$ Serpentis.
9	From $\nu$ Herculis towards B <sup>1</sup> Herculis.
10	From $\iota$ Boötis towards $\eta$ Ursæ Majoris.
11	From the direction of $\mu$ Boötis passed midway between $\gamma$ and $\beta$ Boötis.
12	From $\zeta$ Ursæ Majoris towards $\chi$ Ursæ Majoris.
13	From 68 Herculis towards 51 Herculis.
14	From a point near $\theta$ Herculis towards $\eta$ Herculis.
15	From 68 Herculis passed over $\gamma$ Herculis.
16	From $\beta$ Leonis passed over $\iota$ Leonis.
17	From the direction of $\eta$ Draconis towards $\theta$ Draconis.
18	From $\pi$ Herculis towards $\tau$ Coronæ.
19	From $\theta$ Herculis towards $\beta$ Draconis.
20	From $\alpha$ Coronæ towards $\delta$ Serpentis.
21	From 101 Herculis towards 72 Ophiuchi.
22	From the direction of $\phi$ Herculis passed midway between $\sigma$ and 52 Herculis.
23	From $\gamma$ Boötis to H <sup>2</sup> Canum Venaticum.
24	From the direction of $\gamma$ Coronæ passed over $\iota$ Coronæ.
25	From a point 3° north of Arcturus towards $\epsilon$ Virginis.
26	From $\mu$ Herculis to a point 3° north of $\alpha$ Herculis.
27	From $\alpha$ Coronæ towards Arcturus.
28	From $\tau$ Herculis to 47 Boötis.
29	Passed over $\mu$ Lyræ moving parallel to a line joining B <sup>1</sup> and $\kappa$ Lyræ.
30	From $\gamma$ Lyræ passed over $\eta$ Cygni.
31	From $\alpha$ Herculis passed over $\sigma$ Ophiuchi.
32	From $\beta$ Cygni towards 17 Vulpeculæ.
33	From $\beta$ Draconis towards Polaris.
34	From $\kappa$ Cygni towards $\theta$ Cephei.
35	From Arcturus towards $\alpha$ Coronæ.
36	From $\zeta$ Ursæ Majoris towards $\gamma$ Ursæ Majoris.
37	Passed over $\tau$ Virginis moving parallel to a line joining $\nu$ and $\iota$ Virginis.
38	From 20 Boötis passed over $\zeta$ Boötis.
39	Stationary at a point equidistant from $\alpha$ , $\beta$ and $\theta$ Coronæ.
40	From $\beta$ Draconis to $\eta$ Draconis.
41	From $\iota^2$ Cygni to a point a little east of $\eta$ Cephei.
42	From $\xi$ Draconis towards $\eta$ Ursæ Majoris.
43	From a point midway between $\psi^2$ and $\omega$ Draconis towards 33 Draconis.
44	From $\delta$ Herculis towards $\omega$ Herculis.
45	From $\tau$ Herculis towards $\zeta$ Ursæ Majoris.
46	From $\pi$ Herculis passed over $\eta$ Herculis.
47	From 112 Herculis passed over $\beta$ Aquilæ.
48	From $\theta$ Coronæ towards $\rho$ Boötis.
49	From a point 4° west of $\beta$ Cygni towards $\mu$ Aquilæ.
50	From $\kappa$ Lyræ passed over $\mu$ Lyræ.
51	From $\iota$ Coronæ towards $\beta$ Coronæ.
52	From $\beta$ Herculis towards 29 Herculis.

Month and Day, 1906.	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 Refer- ence.
	h m s				s		°	
April	23	H.B.	3	...	0.5	None	7	1
"	"	S.	3	...	0.4	Slight	5	2
"	"	P.&H.B.	3	Bluish-white	0.8	Slight	10	3
"	"	S., P.&H.B.	2	Bluish-white	0.8	Slight	15	4
"	"	S.&P.	3	White	0.5	Slight	8	5
"	"	S.&H.B.	3	White	1.0	None	12	6
"	"	H.B.	4	...	0.4	None	5	7
"	"	S.&H.B.	3	...	0.8	Slight	10	8
"	"	P.	4	...	0.5	None	10	9
"	"	P.&H.B.	3	Bluish-white	0.6	Slight	10	10
"	"	S.	3	White	0.5	Slight	8	11
"	"	P.&H.B.	4	...	0.4	None	5	12
"	"	S.	4	...	0.4	None	5	13
"	"	S., P.&H.B.	2	Bluish-white	1.2	Slight	15	14
"	"	S.&P.	3	White	0.6	Slight	8	15
"	"	H.B.	4	...	0.5	None	5	16
"	"	P.	2	White	1.2	Slight	10	17
"	"	S.&P.	3	...	0.5	None	8	18
"	"	H.B.	2	White	0.4	Slight	6	19
"	"	S.&H.B.	3	Bluish-white	0.5	None	10	20
"	"	H.B.	4	...	0.4	None	5	21
"	"	S.&P.	2	White	1.0	None	10	22
"	"	P.	2	Bluish-white	0.8	Slight	12	23
"	"	S.&P.	3	...	0.5	None	10	24
"	"	S.	1	Reddish	0.8	Bright	10	25
"	"	H.B.	2	White	0.5	Slight	8	26
"	"	H.B.	3	Bluish-white	0.5	Slight	8	27
"	"	S.&H.B.	2	Bluish-white	0.5	Slight	5	28
"	"	P.	2	Bluish-white	0.8	Slight	10	29
"	"	S., P.&H.B.	3	...	0.6	None	7	30
"	"	H.B.	3	White	0.4	None	5	31
"	"	S.&H.B.	3	Bluish-white	0.6	Slight	8	32
"	"	S.&H.B.	3	...	0.4	Slight	5	33
"	"	H.B.	3	White	0.5	Slight	5	34
"	"	S.&H.B.	3	Bluish-white	0.5	Slight	10	35
"	"	S.	2	Bluish-white	0.5	Slight	8	36
"	"	P.	2	Bluish-white	0.5	Slight	5	37
"	"	P.	2	Bluish-white	0.8	Slight	10	38
"	"	H.B.	2	White	0.5	Slight	10	39
"	"	S.&P.	2	White	0.6	Slight	12	40
"	"	H.B.	3	...	0.5	Slight	8	41
"	"	S.&H.B.	2	Bluish-white	0.8	None	5	42
"	"	P.&H.B.	2	White	1.2	None	15	43
"	"	P.	2	Bluish-white	0.6	None	8	44
"	"	H.B.	2	Bluish-white	0.4	None	5	45
"	"	S.	2	White	0.8	None	10	46
August	9	P.&H.B.	2	Bluish-white	0.6	Faint	10	47
"	"	P.	1	White	1.0	Faint	15	48
"	"	P.&H.B.	1	Bluish-white	0.5	Faint	4	49
"	"	P.&H.B.	2	White	0.8	None	10	50
August	11	H.B.	3	...	0.4	Slight	5	51
"	"	H.B.	2	White	0.5	Slight	6	52
"	"	H.B.	2	Bluish-white	0.5	Slight	12	53
"	"	P.	2	Bluish-white	0.5	Faint	10	54
"	"	P.	> 1	White	1.5	Bright	25	55
"	"	H.B.	3	...	0.4	None	5	56
"	"	H.B.	3	...	0.5	None	6	57
"	"	P.&H.B.	2	Bluish-white	1.0	Faint : 3 secs.	12	58
"	"	H.B.	1	Bluish-white	1.5	Bright : 2 secs.	12	59

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

No. for Reference.	Path of Meteor in the Sky.
1	From $\gamma$ Cygni to $\nu$ Cygni.
2	From $\delta$ Herculis towards $\zeta$ Herculis.
3	From B Aquilæ towards $\alpha$ Aquilæ.
4	From 101 Herculis towards $\eta$ Serpentis.
5	From $\alpha$ Ophiuchi towards $\sigma$ Ophiuchi.
6	From $\eta$ Draconis passed over H Ursæ Minoris.
7	From $\iota$ Cygni towards $\zeta$ Cygni.
8	From $\zeta$ Draconis towards $\theta$ Ursæ Minoris.
9	From $\iota$ Draconis towards $\alpha$ Draconis.
10	From $\sigma$ Herculis passed midway between $\tau$ and $\phi$ Herculis.
11	From $\gamma$ Lyræ passed over $\phi$ Cygni.
12	From $\kappa$ Cygni towards $\theta$ Cephei.
13	From the direction of $\alpha$ Lyræ passed over 13 Lyræ.
14	From $\epsilon$ Draconis towards $\psi^1$ Draconis.
15	From $\phi$ Herculis towards 47 Boötis.
16	From $\epsilon$ Boötis towards 12 Boötis.
17	From $\alpha$ Coronæ towards Arcturus.
18	From $\theta$ Herculis towards 59 Herculis.
19	From $\alpha$ Herculis passed midway between P. XVII. 50 and $\kappa$ Ophiuchi.
20	From A <sup>1</sup> Draconis towards P. XIII. 110.
21	From 107 Herculis towards 109 Herculis.
22	From $\delta$ Cygni passed over $\circ$ Cygni.
23	From B Serpentis passed over 4 Aquilæ.
24	From $\gamma$ Ophiuchi towards $\mu$ Ophiuchi.
25	From a point midway between $\kappa$ and $\mu$ Lyræ towards $\epsilon$ Herculis.
26	From $\xi$ Draconis towards 27 Draconis.
27	From 2 Pegasi towards $\nu$ Cygni.
28	From a point $\frac{1}{3}$ distance from $\beta$ Lyræ to B <sup>2</sup> Herculis towards $\beta$ Cygni.
29	From $\gamma$ Ophiuchi towards $\mu$ Ophiuchi.
30	From $\xi$ Coronæ towards $\theta$ Coronæ.
31	From the direction of 23 Cygni passed midway between $\iota^2$ and $\kappa$ Cygni.
32	From the direction of $\theta$ Cygni passed over and 2° beyond $\beta$ Cephei.
33	Passed over $\zeta$ Aquilæ moving towards $\rho$ Aquilæ.
34	From the direction of 29 Vulpeculæ towards a point midway between $\delta$ Equulei and $\epsilon$ Pegasi.
35	From the direction of $\kappa$ Lyræ towards $\lambda$ Herculis.
36	From the direction of $\kappa$ Lyræ towards $\lambda$ Herculis (same path as preceding meteor).
37	From $\kappa$ Delphini towards $\alpha$ Equulei.
38	From $\nu$ Aquilæ towards 57 Aquilæ.
39	From the direction of $\iota$ Pegasi passed midway between $\eta$ and $\beta$ Pegasi.
40	From $\gamma$ Draconis towards $\xi$ Draconis.
41	From $\lambda$ Herculis towards $\zeta$ Herculis.
42	From $\delta$ Cygni towards $\omega^3$ Cygni.
43	From 15 Vulpeculæ towards 28 Vulpeculæ.
44	From $\alpha$ Cephei towards 30 Cephei.
45	From $\eta$ Herculis towards $\phi$ Boötis.
46	From $\alpha$ Ophiuchi passed over $\sigma$ Ophiuchi.
47	From the direction of $\gamma$ Cassiopeiæ passed over $\beta$ Cassiopeiæ.
48	From $\nu$ Andromedæ passed over $\omega$ Andromedæ.
49	From $\iota$ Persei to a point just below $\kappa$ Persei.
50	From 58 Andromedæ to a point a little beyond $\alpha$ Trianguli.
51	Passed directly over $\mu$ Aquilæ and disappeared midway between $\sigma$ and $\delta$ Aquilæ.
52	Directed from B <sup>2</sup> Draconis towards B <sup>1</sup> Lyræ.
53	From 39 Cygni to a point 1° beyond $\delta$ Sagittæ.
54	From $\delta$ Cassiopeiæ moved parallel to $\gamma$ and $\beta$ Cassiopeiæ.
55	From a point midway between $\xi$ and $\epsilon$ Cephei towards $\epsilon$ Cygni.
56	Commencing exactly at $\lambda$ Cygni towards 39 Cygni.
57	Passed over $\lambda$ Andromedæ moving towards 32 Andromedæ.
58	Commencing opposite to 22 Andromedæ passed immediately below $\iota$ Pegasi moving exactly towards $\eta$ Pegasi.
59.	Passed closely below $\theta$ Aquilæ to a point 2° west of 57 Aquilæ.

Month and Day, 1906.		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 Refer- ence.
		h m s				s		°	
August	11	21. 45. 26	P.&H.B.	3	...	0.5	None	5	1
"	"	21. 46. 56	P.	2	...	0.7	Faint	12	2
"	"	21. 48. 48	H.B.	2	Bluish-white	0.8	Bright: 2 secs.	10	3
"	"	22. 5. 26	H.B.	3	...	0.4	None	5	4
"	"	22. 9. 13	H.B.	2	White	0.5	Slight	5	5
"	"	22. 9. 25	H.B.	2	White	2.5	Faint: 2 secs.	15	6
"	"	22. 13. 31	P.	2	White	0.8	Faint	10	7
"	"	22. 14. 12	P.&H.B.	3	...	0.5	None	5	8
"	"	22. 18. 53	H.B.	1	Bluish-white	1.5	Bright: 2 secs.	18	9
"	"	22. 21. 26	P.&H.B.	2	White	1.0	Faint	8	10
"	"	22. 22. 44	H.B.	2	White	0.8	None	5	11
"	"	22. 26. 13	H.B.	3	...	0.5	None	5	12
"	"	22. 28. 33	P.&H.B.	3	...	0.4	None	7	13
"	"	22. 33. 11	P.	2	Bluish-white	1.0	Bright	10	14
"	"	22. 38. 24	P.&H.B.	3	...	0.6	Faint	5	15
"	"	22. 39. 57	H.B.	3	...	0.5	Faint	5	16
"	"	22. 42. 10	P.	2	White	0.5	Bright: 2 secs.	10	17
"	"	22. 44. 29	P.	3	...	0.5	None	8	18
"	"	22. 48. 7	P.&H.B.	3	...	0.5	None	5	19
"	"	22. 53. 13	P.	2	Bluish-white	1.0	Faint	8	20
"	"	22. 55. 4	P.	2	White	0.5	Slight	8	21
"	"	22. 58. 19	H.B.	3	...	0.5	None	5	22
"	"	23. 5. 3	P.&H.B.	2	Bluish-white	1.0	Bright	12	23
"	"	23. 7. 52	P.&H.B.	1	White	1.2	Bright: 1 sec.	15	24
"	"	23. 11. 17	H.B.	3	...	0.5	None	8	25
"	"	23. 16. 29	P.	3	...	0.4	None	5	26
"	"	23. 18. 29	H.B.	1	White	1.0	Bright: 3 secs.	15	27
"	"	23. 20. 2	P.	1	White	1.0	Bright	20	28
"	"	23. 20. 34	H.B.	3	...	0.5	None	10	29
"	"	23. 23. 40	H.B.	1	White	0.5	Slight	8	30
"	"	23. 24. 40	F.	1	White	2.0	Bright	15	31
"	"	23. 27. 34	H.B.	2	Bluish-white	0.4	None	10	32
"	"	23. 36. 33	H.B.	3	...	0.5	None	7	33
"	"	23. 40. 11	H.B.	2	Bluish-white	0.4	Slight	5	34
"	"	23. 43. 43	H.B.	2	White	0.5	Slight	12	35
"	"	23. 43. 44	H.B.	2	White	0.5	Slight	10	36
"	"	23. 46. 33	H.B.	2	Bluish-white	0.4	Slight	10	37
"	"	23. 48. 51	H.B.	2	White	0.5	Slight	12	38
"	"	23. 50. 8	F.	2	Bluish-white	1.0	Bright	10	39
"	"	23. 50. 22	F.	1	White	1.0	Bright	12	40
"	"	23. 52. 13	H.B.	3	White	0.4	None	7	41
"	"	23. 52. 26	P.	2	White	0.7	Faint	12	42
"	"	23. 54. 23	H.B.	1	Bluish-white	0.8 +	Bright	12 +	43
"	"	23. 55. 31	F.	1	White	2.0	Bright	15	44
"	"	23. 56. 53	H.B.	2	White	0.6	Bright: 2 secs.	8	45
August	12	0. 1. 14	H.B.	3	White	0.5	None	10	46
"	"	0. 2. 43	F.	1	White	1.5	Bright	15	47
"	"	0. 3. 15	P.&F.	2	White	0.5	Slight	10	48
"	"	0. 10. 52	F.	3	...	2.5	None	15	49
"	"	0. 12. 27	F.	2	...	0.7 +	None	15 +	50
"	"	0. 13. 4	H.B.	2	Bluish-white	0.4	Slight	5	51
"	"	0. 14. 13	H.B.	3	White	0.5	Slight	7	52
"	"	0. 19. 36	P.&H.B.	2	Bluish-white	3.5	Slight	20	53
"	"	0. 22. 22	H.B.	3	...	0.5	None	...	54
"	"	0. 27. 36	H.B.	3	...	0.6	None	5	55
"	"	0. 33. 40	H.B.	2	White	0.4	1 sec.	2	56
"	"	0. 36. 48	H.B.	2	White	0.5	Slight	8	57
"	"	2. 2. 52	H.B.	2	Bluish-white	0.5	Slight	8	58
"	"	2. 6. 50	H.B.	2	White	0.4	Slight	5	59
"	"	21. 22. 34	P.&H.B.	3	White	0.5	Slight	7	60
"	"	21. 27. 40	P.	2	White	0.8	Bright	10	61

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

No. for Reference.	Path of Meteor in the Sky.
1	From a point at the centre of the square of Pegasus towards $\gamma$ Pegasi.
2	From a point midway between $\iota$ and $\lambda$ Pegasi towards $\alpha$ Aquarii.
3	Passed across $\sigma$ Andromedæ from a point $5^\circ$ before it towards a point midway between $\tau$ and $\delta$ Pegasi.
4	From a point midway between $\gamma$ and $\psi$ Pegasi towards a point midway between $\sigma$ and $\pi$ Andromedæ.
5	From a point midway between $\beta$ and $\alpha$ Persei towards $\alpha$ Persei.
6	From a point $3^\circ$ north of a point midway between $\alpha$ and $\gamma$ Persei passed over P. IV. 7.
7	From $\beta$ Cassiopeiæ towards $\delta$ Cephei.
8	From $\alpha$ Andromedæ passed over and a little beyond a point midway between $\pi$ and $\sigma$ Andromedæ.
9	From $\delta$ Lacertæ disappeared at a point $3^\circ$ short of $\zeta$ Cygni.
10	From $\nu$ Pegasi disappeared within $2^\circ$ of $\gamma$ Pegasi.
11	Commencing exactly midway between $\zeta$ and $\epsilon$ Piscium moved towards $\phi^2$ Ceti.
12	From the direction of $\gamma$ Arietis and commencing directly opposite $\eta$ Piscium to a point just beyond $\sigma$ Piscium.
13	From $\gamma$ Camelopardi towards $\alpha$ Camelopardi.
14	From $\epsilon$ Aurigæ towards $\theta$ Aurigæ.
15	From the direction of $\chi$ Piscium passed to a point a little beyond midway between $\epsilon$ and $\delta$ Piscium.
16	From $\sigma$ Andromedæ towards $\gamma$ Pegasi.
17	From $\gamma$ Andromedæ towards $\beta$ Andromedæ.
18	From $\beta$ Cassiopeiæ towards $\lambda$ Andromedæ.
19	From a point between $\chi$ and $\psi$ Piscium towards $\delta$ Piscium.
20	From $\alpha$ Andromedæ towards $\alpha$ Pegasi.
21	From $\alpha$ Cephei to $\kappa$ Cygni.
22	From the direction of $\nu$ Andromedæ passed over and a little beyond $\alpha$ Andromedæ.
23	From $\sigma$ Piscium passed over a point midway between $\eta$ and $\zeta$ Andromedæ.
24	From a point midway between $\gamma$ and $\delta$ Cygni to a point $2^\circ$ south of $\gamma$ Lyræ.
25	From a point midway between $\iota$ and $\kappa$ Andromedæ towards $\gamma$ Pegasi.
26	From $\alpha$ Cygni passed over $\gamma$ Cygni.
27	Passed over a point midway between $\gamma$ and $\pi$ Cephei to $\gamma$ Draconis.
28	From $\gamma$ Pegasi towards $\alpha$ Pegasi, moving parallel to a line joining $\beta$ and $\lambda$ Pegasi.
29	From $\beta^2$ Draconis towards a point midway between $\iota$ and $\sigma$ Herculis.
30	Directed from a point $\frac{1}{2}$ distance from $\theta$ Aurigæ to $\delta$ Aurigæ passed over a point $2^\circ$ south of $\beta$ Aurigæ.
31	From $\theta$ Pegasi towards $\theta$ Aquilæ.
32	Passed over a point immediately below $\alpha$ Camelopardi moving towards P. V. 335.
33	Passed close to P. VIII. 105 moving towards a point midway between $\iota$ and $i$ Ursæ Majoris.
34	Passed just below P. III. 121 directed from P. III. 51.
35	Passed over points midway between $\eta$ and $\beta$ Pegasi and between $\mu$ and $\alpha$ Pegasi commencing $5^\circ$ before reaching the former.
36	Directed from midway between $\alpha$ and $\theta$ Pegasi towards a point $2^\circ$ above $\alpha$ Pegasi.
37	Directed from P. IV. 269 to a point a little beyond midway between P. VI. 292 and P. VII. 187.
38	From a point midway between $\beta$ and $\epsilon$ Delphini to a point $2^\circ$ beyond a point midway between $\beta$ and $\eta$ Aquilæ.
39	From $\beta$ Draconis to $\eta$ Herculis.
40	From $\zeta$ Cygni to $\alpha$ Delphini.
41	From the direction of $\tau$ Andromedæ towards $\tau$ Piscium.
42	From $\zeta$ Aquilæ towards $\eta$ Serpentis.
43	From the direction of $\sigma$ Persei and commencing $2^\circ$ before A Tauri passed over the latter and disappeared in haze near horizon.
44	From $\iota$ Cephei towards $\alpha$ Lyræ.
45	From a point midway between $\nu$ and $\alpha$ Persei to a point $2^\circ$ short of $\zeta$ Persei.
46	Commencing midway between $\chi$ and $\gamma$ Pegasi towards $\iota$ Piscium.
47	From a point midway between Capella and $\beta$ Aurigæ moved in a north-easterly direction.
48	From a point $1^\circ$ north of $\alpha$ Persei fell vertically downwards.
49	From $\alpha$ Camelopardi towards $\alpha$ Camelopardi.
50	From $\alpha$ Aquarii passed midway between $\xi$ and $\beta$ Aquarii.
51	From $\alpha$ Camelopardi towards P. V. 335.
52	Passed over a point $\frac{1}{2}$ distance from $\epsilon$ Cassiopeiæ to $\delta$ Cassiopeiæ and disappeared shortly before reaching $\psi$ Cassiopeiæ.
53	From a point midway between $\beta$ Andromedæ and $\delta$ Piscium passed over a point midway between $\alpha$ and $\iota$ Arietis.
54	Practically stationary at a point midway between $\delta$ Aurigæ and $\alpha$ Camelopardi.
55	From the direction of P. III. 121 at first moved towards P. II. 237 but when opposite to $\gamma$ Camelopardi seemed to be deflected moving towards a point midway between P. II. 237 and $\delta$ Cassiopeiæ.
56	From a point forming an equilateral triangle on the northern side with $\alpha$ and $\beta$ Camelopardi towards $\delta$ Camelopardi.
57	From a point just above $\alpha$ Trianguli towards $\iota$ Piscium.
58	From a point midway between $\mu$ and $\beta$ Andromedæ passed over $\pi$ Andromedæ.
59	From a point a little to the south of $\zeta$ Aurigæ towards a point $\frac{1}{2}$ of distance from $\chi$ Aurigæ to $\beta$ Aurigæ.
60	From $\theta$ Persei towards $\delta$ Andromedæ.
61	From $\gamma$ Draconis towards $\eta$ Herculis.

Month and Day, 1906.	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 Refer- ence.
August	12							
	h m s				s		°	
	21. 31. 8	H.B.	3	...	0.5	Faint	7	1
	21. 39. 4	H.B.	2	Bluish-white	1.0	Slight	12	2
	21. 42. 50	P.	2	Bluish-white	0.5	Slight	5	3
	21. 48. 54	P.	3	...	0.5	Bright	5	4
	21. 54. 14	H.B.	2	White	1.0	Bright	12	5
	22. 55. 51	H.B.	2	Bluish-white	0.5	Slight	8	6
	23. 5. 36	H.B.	2	Bluish-white	0.6	Slight	7	7
	23. 9. 58	P.	2	White	0.5	None	5	8
	23. 16. 14	H.B.	3	...	0.8	None	5	9
	23. 22. 32	H.B.	3	...	0.5	None	8	10
	23. 25. 42	P.	1	White	0.7	Bright	10	11
	23. 28. 26	P.	2	White	0.5	Slight	8	12
	23. 33. 57	P.	3	...	0.5	Faint	5	13
	23. 36. 11	H.B.	3	...	0.7	Slight	10	14
	23. 38. 8	H.B.	3	...	0.4	None	5	15
	23. 40. 36	H.B.	2	Bluish-white	0.5	Slight	8	16
	23. 41. 59	P.	1	White	0.5	Bright	15	17
	23. 44. 35	P.	2	...	0.7	None	10	18
	23. 44. 43	P.	3	White	0.3	Faint	7	19
	23. 51. 48	H.B.	2	White	0.5	Slight	8	20
	23. 52. 13	H.B.	> 1	Bluish-white	1.0	Bright: 4 secs.	3	21
	23. 52. 18	P.	1	Bluish-white.	1.0	Bright	12	22
August	13							
	0. 0. 3	H.B.	2	White	0.8	Bright	10	23
	0. 5. 36	H.B.	1	White	1.0	Slight	10	24
	0. 8. 0	H.B.	2	White	0.5	Slight	7	25
	0. 11. 50	P.	2	White	0.5	Faint	10	26
	0. 12. 21	H.B.	1	White	1.0	Slight	15	27
	0. 15. 28	H.B.	2	Bluish-white	0.6	Faint	8	28
	0. 22. 57	P.&H.B.	1	Bluish-white	0.8	Slight	15	29
	0. 28. 14	P.&H.B.	> 1	Bluish-white	1.5	Bright	12	30
	0. 31. 42	H.B.	2	White	0.6	Slight	8	31
	0. 36. 16	P.	2	White	0.7	Slight	10	32
	0. 41. 59	P.	3	Bluish-white	0.4	None	5	33
	0. 43. 43	H.B.	3	Bluish-white	0.5	None	7	34
	0. 48. 48	H.B.	2	White	0.8	Slight	10	35
	0. 54. 57	P.	3	White	0.5	None	5	36
	1. 15. 39	P.	3	...	0.5	Slight	7	37
	1. 20. 17	H.B.	2	Bluish-white	0.5	Faint	7	38
	1. 22. 5	P.&H.B.	2	White	0.8	Slight	10	39
	1. 24. 25	H.B.	2	Bluish-white	0.5	None	8	40
	1. 28. 37	H.B.	2	White	0.5	Slight	5	41
	1. 36. 0	P.	2	White	0.8	Slight	10	42
	1. 38. 19	H.B.	4	...	0.4	None	5	43
	1. 42. 32	P.	3	...	0.5	None	7	44
	1. 49. 15	P.	2	Bluish-white.	0.8	Faint	12	45
	1. 57. 59	H.B.	3	...	0.5	None	5	46
	2. 0. 17	P.	3	...	0.7	None	10	47
	2. 15. 50	H.B.	2	Bluish-white	0.4	Slight	10	48
	2. 18. 44	H.B.	3	...	0.5	None	5	49
	2. 25. 48	P.	2	White	0.8	Slight	12	50
	2. 28. 17	P.	2	Bluish-white	1.2	None	15	51
	2. 31. 36	H.B.	3	White	0.4	None	5	52
	2. 36. 21	H.B.	3	...	0.4	None	5	53
	2. 43. 11	H.B.	3	...	0.6	None	8	54
	2. 48. 54	P.&H.B.	2	Bluish-white	0.8	Slight	8	55
	2. 57. 29	P.	2	Bluish-white	0.8	Bright	10	56
	3. 1. 16	H.B.	3	...	0.5	None	5	57
	3. 7. 40	P.&H.B.	2	White	1.0	Bright	12	58
	3. 10. 49	P.&H.B.	2	White	0.8	Bright: 2 secs.	12	59
	3. 19. 29	P.	3	...	0.5	None	8	60

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

No. for Reference.	Path of Meteor through the Stars.
1	From $\gamma$ Cephei towards a point $\frac{1}{3}$ of distance from $\kappa$ Cephei to $40$ Cephei.
2	From $55$ Camelopardi towards $23$ Ursæ Majoris.
3	From $\mu$ Persei towards $\epsilon$ Aurigæ.
4	From $\gamma$ Andromedæ towards a point midway between $91$ and $82$ Piscium.
5	Directed from a point midway between $\alpha$ and $\beta$ Arietis towards a point a little to the east of $o$ Piscium.
6	From a point midway between $\alpha$ and $W$ Vulpeculæ towards $18$ Aquilæ.
7	From $24$ Persei towards $41$ Arietis.
8	From $\beta$ Trianguli to $\alpha$ Trianguli.
9	From the direction of $\alpha$ Arietis and commencing opposite $\gamma$ Arietis towards $o$ Piscium.
10	From $\xi$ Persei to a point a little beyond $\phi$ Tauri.
11	From $6$ Cephei passed over and a little beyond $\theta$ Cephei.
12	From $\beta$ Aquilæ towards $\eta$ Serpentis.
13	From $\zeta$ Aquilæ towards $74$ Ophiuchi.
14	From $\xi$ Pegasi to a point $2^\circ$ south of $\theta$ Pegasi.
15	From $B$ Persei towards $\nu$ Persei.
16	From the direction of $58$ Andromedæ and commencing between $\alpha$ and $\beta$ Trianguli moved towards $\rho$ Piscium.
17	From $\zeta$ Cassiopeiæ towards $\alpha$ Andromedæ.
18	From $\gamma$ Sagittæ towards $\theta$ Aquilæ.
19	From $\beta$ Cygni towards $B$ Serpentis.
20	From a point midway between $\beta$ and $\eta$ Pegasi towards a point $2^\circ$ below $9$ Pegasi.
21	Directed from a point midway between $P. III. 54$ and $P. III. 57$ and commencing at a point on a line joining $\alpha$ Persei and $\alpha$ Camelopardi towards $7$ Camelopardi.
22	From $32$ Pegasi to $\theta$ Pegasi.
23	From a point midway between $\kappa$ and $\gamma$ Cassiopeiæ towards $\delta$ Cephei.
24	From the direction of $\gamma$ Aquarii passed over $\mu$ and $\delta$ Capricorni.
25	From $\phi$ Aquarii towards $\delta$ Aquarii.
26	From $\alpha$ Lyræ fell vertically downwards.
27	From $\tau$ Pegasi to $58$ Pegasi.
28	Directed from a point $\frac{1}{3}$ of distance of $\theta$ towards $\zeta$ Pegasi to $30$ Aquarii.
29	From the direction of $29$ Cygni passed over $\alpha$ Vulpeculæ to $1$ Vulpeculæ.
30	From a point midway between $\nu$ and $\lambda$ Ursæ Majoris passed over the latter and burst shortly before end of path.
31	Commencing $2^\circ$ before and passing over $\theta$ Cephei towards $\kappa$ Cygni.
32	From $\nu$ Persei to a point midway between $o$ Cassiopeiæ and $\phi$ Andromedæ.
33	From $\gamma$ Arietis towards $\mu$ Piscium.
34	From $\zeta$ Piscium moved towards a point midway between $\phi^2$ and $\iota$ Ceti and disappeared near $20$ Ceti.
35	From $\chi$ Aurigæ towards $\chi^4$ Orionis.
36	From $50$ Andromedæ toward $\beta$ Andromedæ.
37	From $72$ Pegasi to $56$ Pegasi.
38	Commencing exactly at $\pi$ Aurigæ and moving towards $\theta$ Geminorum.
39	Commencing exactly at $\epsilon$ Cassiopeiæ moved parallel to a line joining $\delta$ and $\gamma$ Cassiopeiæ.
40	Directed from $\gamma$ Persei moved in a continuation of a line joining $\gamma$ Andromedæ and $\gamma$ Persei commencing about $3^\circ$ before $\beta$ Camelopardi.
41	From $\delta$ Aurigæ towards a point midway between $21$ and $16$ Lyncis.
42	From $\gamma$ Andromedæ towards $91$ Piscium.
43	From $17$ Camelopardi towards $9$ Camelopardi.
44	From $\xi$ Persei towards $\phi$ Tauri.
45	From $\alpha$ Arietis towards a point midway between $\xi$ Ceti and $o$ Piscium.
46	From $\gamma$ Camelopardi towards $P. IV. 269$ .
47	From $\gamma$ Cephei towards $\kappa$ Cephei.
48	From a point midway between $\gamma$ Pegasi and $58$ Piscium to $29$ Piscium.
49	From $P. III. 7$ to a point midway between $\gamma$ Camelopardi and $P. II. 237$ .
50	From $\alpha$ Cephei towards $\pi^1$ Cygni.
51	From $\zeta$ Cygni passed over a point midway between $28$ and $29$ Vulpeculæ.
52	From $\lambda$ Andromedæ towards $o$ Andromedæ.
53	From a point midway between $\kappa$ and $\iota$ Persei to a point $2^\circ$ beyond $16$ Persei.
54	Commencing below $Capella$ towards $\theta$ Aurigæ.
55	From $o$ Persei towards $A$ Tauri.
56	From $\zeta$ Pegasi towards $\alpha$ Aquarii.
57	From $1$ Pegasi towards $\kappa$ Delphini.
58	From $\sigma$ Andromedæ passed over $\mu$ Andromedæ.
59	From a point just below $78$ Pegasi towards $\tau$ Pegasi.
60	From $\beta$ Cassiopeiæ towards $1$ Cassiopeiæ.



Month and Day, 1906.	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 Refer- ence.
August 13	h m s 3. 22. 0	P.&H.B.	3	...	0.5	None	5	1
"	3. 25. 49	H.B.	4	...	0.4	None	3	2
"	3. 31. 8	P.&H.B.	2	Bluish-white	0.5	Slight	7	3
"	3. 37. 39	H.B.	3	White	0.5	None	6	4
"	3. 40. 13	P.	2	White	0.7	Slight	10	5
"	3. 44. 58	P.&H.B.	2	White	1.2	Faint: 2 secs.	10	6
"	3. 47. 32	P.&H.B.	2	White	1.0	Slight	12	7
September 10	20. 30.	A.C.	= 2	...	...	...	...	8
October 23	22. 53.	A.C.	2 × 2	Bluish-white	...	...	...	9
"	22. 53.	A.C.	1	Reddish	...	...	...	10
November 12	22. 15. 30	P.&H.B.	1	White	0.8	Slight	12	11
"	22. 21. 1	P.	2	Bluish-white	0.6	None	8	12
"	22. 27. 56	H.B.	2	White	0.8	None	15	13
"	22. 29. 28	H.B.	2	White	0.5	None	10	14
"	22. 32. 19	P.&H.B.	2	Bluish-white	1.0	Bright	12	15
"	22. 36. 37	P.	3	Bluish-white	0.5	None	5	16
"	22. 38. 54	P.&H.B.	3	...	0.7	None	8	17
"	22. 45. 18	H.B.	3	...	0.4	None	5	18
"	22. 53. 59	H.B.	1	White	1.0	Faint: 2 secs.	12	19
"	22. 54. 23	P.	2	White	1.0	Faint	15	20
"	22. 58. 10	P.	2	White	0.8	Faint	12	21
"	23. 3. 47	P.&H.B.	3	...	0.5	None	8	22
"	23. 8. 15	P.&H.B.	2	Bluish-white	0.8	None	10	23
"	23. 10. 8	P.&H.B.	1	Bluish-white	0.5	Bright: 3 secs.	7	24
"	23. 18. 8	P.&H.B.	2	Bluish-white	0.4	None	6	25
"	23. 19. 36	H.B.	3	White	0.4	None	5	26
"	23. 22. 19	P.	1	White	1.0	Bright	12	27
"	23. 30. 34	P.&H.B.	1	White	1.2	Bright	15	28
"	23. 31. 49	H.B.	2	Reddish	0.7	None	10	29
"	23. 34. 1	P.	2	White	0.5	Slight	7	30
"	23. 37. 55	P.&H.B.	1	Bluish-white	0.8	Bright: 3 secs.	10	31
"	23. 40. 32	H.B.	2	White	1.0	Slight	12	32
"	23. 43. 16	P.&H.B.	2	White	0.5	Slight	5	33
November 13	3. 45. 51	P.&H.B.	1	White	0.8	Bright: 2 secs.	12	34
"	3. 51. 42	P.	2	Bluish-white	0.5	Slight	8	35
"	3. 55. 59	P.&H.B.	2	White	0.5	Faint	7	36
"	4. 0. 17	H.B.	3	...	0.4	None	5	37
"	4. 2. 17	P.	2	Bluish-white	0.8	Faint	10	38
"	4. 8. 51	P.&H.B.	2	Bluish white	1.0	Faint	15	39
"	4. 10. 58	H.B.	2	Bluish-white	0.6	None	8	40
"	4. 13. 37	P.&H.B.	1	White	1.0	Bright: 3 secs.	10	41
"	4. 15. 29	H.B.	2	White	0.8	None	10	42
"	4. 18. 57	P.&H.B.	2	Bluish-white	0.5	Slight	7	43
"	22. 8. 50	P.	2	Bluish-white	0.8	Bright	17	44
"	22. 9. 14	P.	3	Bluish-white	0.5	None	8	45
"	22. 21. 51	P.	2	White	0.2	None	4	46
"	22. 24. 17	H.B.	3	...	0.5	None	8	47
"	22. 28. 19	P.&H.B.	2	White	0.7	None	10	48
"	22. 33. 57	H.B.	1	Bluish-white	0.5	Bright: 2 secs.	16	49
"	22. 35. 32	H.B.	3	...	0.4	None	8	50
"	22. 42. 55	P.&H.B.	2	Bluish-white	0.8	Slight	11	51
"	22. 48. 24	H.B.	2	White	0.8	None	12	52

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

No. for Reference.	Path of Meteor in the Sky.
1	From $\iota$ Aurigæ towards a point midway between $\zeta$ and $\iota 16$ Tauri.
2	From $40$ Cassiopeiæ towards $\gamma$ Cephei.
3	From $9$ Aurigæ towards a point midway between $46$ and $\pi$ Aurigæ.
4	From $\alpha$ Cassiopeiæ towards $\phi$ Cassiopeiæ.
5	From $\epsilon$ Cassiopeiæ towards $\sigma$ Cephei.
6	From $56$ Andromedæ towards $\rho$ Piscium.
7	From $\iota$ Cephei towards $6$ Cephei.
8	To a point $12^\circ$ S.S.W. of $\alpha$ Capricorni.
9	From a point midway between Jupiter and Aldebaran passed across and burst $4^\circ$ east of Jupiter.
10	From a point midway between Aldebaran and $\alpha$ Orionis passed across and burst a little below $\alpha^2$ Orionis.
11	From the direction of $\gamma$ Tauri passed over $47$ Tauri.
12	From $\epsilon$ Geminorum towards $\kappa$ Geminorum.
13	From $\beta$ Tauri passed over a point midway between $\zeta$ and $\iota 32$ Tauri.
14	From $\zeta$ Geminorum towards $\beta$ Canis Minoris.
15	From $\delta$ Geminorum passed over $81$ Geminorum.
16	From $\eta$ Orionis towards $\theta$ Orionis.
17	From $\beta$ Persei towards $62$ Andromedæ.
18	From $\beta$ Aurigæ towards $\theta$ Geminorum.
19	From $\iota 0$ Monocerotis towards $B^1$ Canis Majoris.
20	From $\gamma$ Geminorum towards $\alpha$ Orionis.
21	From Capella towards a point midway between $7$ Camelopardi and P. IV. 7.
22	From $\zeta$ Geminorum passed over $\gamma$ Geminorum.
23	From $\zeta$ Tauri towards a point midway between $\nu$ and $\gamma$ Geminorum.
24	Commencing exactly at $\iota$ Cancri towards $71$ Geminorum.
25	From $\iota$ Cancri towards Castor.
26	From Capella towards $\chi$ Aurigæ.
27	From $\epsilon$ Geminorum towards $\beta$ Tauri.
28	From Procyon towards $22$ Monocerotis.
29	From the Pleiades towards $41$ Arietis.
30	From $\epsilon$ Geminorum towards $\beta$ Tauri.
31	From $\zeta$ Cancri towards $6$ Canis Minoris.
32	From $\lambda$ Ursæ Majoris towards $\alpha$ Ursæ Majoris.
33	From $\nu$ Tauri towards $32$ Eridani.
34	From $\theta$ Ursæ Majoris to a point near $23$ Ursæ Majoris.
35	From the direction of $\chi$ Leonis passed over a point a little below $\sigma$ Leonis.
36	From the direction of $\eta$ Leonis passed over a point a little to the west of Regulus.
37	From a point midway between $\xi$ and $\sigma$ Leonis towards $\theta$ Hydræ.
38	From $\gamma$ Ursæ Majoris towards $\epsilon$ Ursæ Majoris.
39	From Aldebaran towards $\pi^4$ Orionis.
40	From $\delta$ Cancri passed over $\zeta$ Cancri.
41	From a point a little to the north of $\nu$ Ursæ Majoris towards $\beta$ Canum Venaticum.
42	Commencing exactly at $\zeta$ Geminorum passed over $\chi$ Orionis.
43	From $\mu$ Leonis towards $\alpha$ Lynceis.
44	Directed from $\delta$ Geminorum passed between $\xi$ and $\gamma$ Geminorum in the direction of $\alpha$ Orionis.
45	From $\gamma$ Cancri towards Castor.
46	From $\theta$ Geminorum in the direction of Capella.
47	Terminated at a point midway between $B^1$ and $\iota 5$ Monocerotis moving parallel to a line joining $\xi$ Geminorum and $B^1$ Monocerotis.
48	$31^\circ + 32^\circ$ to $21^\circ + 33^\circ$
49	$40 + 36$ to $32 + 22$
50	$77 + 47$ to $82 + 52$
51	$122 + 34$ to $133 + 35$
52	$75 + 51$ to $78 + 63$

Month and Day, 1906.	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 Refer- ence.	
November 13	h m s				s		°		
	22. 50. 47	P.	2	...	1.0	Long	17	1	
	22. 57. 7	H.B.	1	Bluish-white	1.2	Bright	33	2	
November 13	23. 3. 12	P.	2	Bluish-white	0.5	Faint	14	3	
November 14	23. 7. 41	P.	2	Bluish-white	0.8	Slight	20	4	
	23. 9. 18	P.	2	Bluish-white	1.3	Faint	28	5	
	23. 15. 3	H.B.	1	Bluish-white	1.0	None	15	6	
	23. 17. 48	H.B.	2	Bluish-white	0.6	None	14	7	
	23. 20. 19	H.B.	3	Bluish-white	0.5	None	13	8	
	23. 24. 18	H.B.	3	White	0.5	Slight	13	9	
	23. 24. 52	P.	2	...	1.0	None	8	10	
	23. 28. 1	P.&H.B.	3	White	0.7	None	10	11	
	23. 31. 58	P.	1	Reddish	2.0	Bright : 2 secs.	32	12	
	23. 33. 17	H.B.	1	Bluish-white	0.4	Faint	18	13	
	23. 34. 0	P.	3	...	0.7	Slight	10	14	
	23. 36. 56	H.B.	3	...	0.5	Slight	12	15	
	23. 39. 43	H.B.	3	...	0.4	Slight	6	16	
	23. 44. 0	P.	2	White	0.8	Bright	11	17	
	23. 53. 9	H.B.	2	White	1.0	Bright : 2 secs.	17	18	
	23. 57. 4	P.	2	White	0.7	Bright	10	19	
	November 15	0. 1. 58	P.&H.B.	1	Bluish-white	0.8	Bright : 2 secs.	13	20
		0. 4. 7	H.B.	2	White	0.5	Slight	20	21
		0. 5. 12	P.&H.B.	3	...	0.4	None	9	22
0. 7. 35		P.	3	...	0.4	Faint	9	23	
0. 8. 23		P.	2	Bluish-white	0.7	Faint	17	24	

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



No. for Reference.	Path of Meteor in the Sky.
1	113° + 35° to 90° + 50°
2	122 + 63 to 79 + 61
3	112 + 34 to 122 + 25
4	63 + 12 to 48 + 1
5	108 + 19 to 123 - 4
6	100 + 33 to 83 + 35
7	38 + 34 to 22 + 38
8	153 + 50 to 166 + 53
9	63 + 52 to 47 + 60
10	92 + 35 to 97 + 42
11	129 + 29 to 120 + 33
12	66 + 18 to 49 - 7
13	82 + 32 to 64 + 39
14	79 + 44 to 84 + 53
15	129 + 14 to 138 + 8
16	77 + 26 to 82 + 28
17	143 + 21 to 133 + 20
18	120 + 16 to 104 + 12
19	73 + 13 to 78 + 4
20	97 + 30 to 93 + 42
21	132 + 12 to 118 + 4
22	103 + 9 to 106 0
23	92 - 1 to 95 - 10
24	107 - 8 to 98 - 20



