RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL

OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1895:

UNDER THE DIRECTION OF

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

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GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS,

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INTRODUCTION.

§ 1. *Personal Establishment and Arrangements.*

During the year 1895 the personal establishment in the Magnetical and Meteorological Department of the Royal Observatory consisted of William Carpenter Nash, Superintendent, aided by five Computers. The Computers employed at different times during the year were, Thomas F. Claxton, David J. R. Edney, Henry James MacManus, Albert Walter, Percival D. Beadle, Thomas Percy Marchant, and Cedric A. F. Davies.

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

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

The Magnetical and Meteorological Observatory was erected in the year 1838. Its northern face is distant about 170 feet south-south-east from the nearest point of the South-East Dome, and about 35 feet south from the carpenters' workshop. On its east stands the New Library (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, are 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 are supported on piers built from the ground. In the eastern arm is placed the Thomson electrometer for photographic record of the variations of atmospheric electricity, its water cistern rests on four glass insulators supported by a platform fixed to the western side of the southern arm, near the ceiling. The Standard barometer is suspended near the junction of the southern and western arms. The sidereal clock, Grimalde and Johnson, is fixed at the junction of the eastern and southern arms, and there is in addition a mean solar chronometer, McCabe No. 649, for general use. A mean solar clock (Molyneux), transferred from the Astronomical Department, was set up in the northern arm during the year 1883.

Until the year 1863 the horizontal and vertical force magnets were also located in the Upper Magnet Room, the upper 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 under the upper declination magnet, to avoid mutual interference; 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 to the pier which supports the upper declination theodolite. Another mean solar clock is attached to the western wall of the southern arm. For better ascertaining the variations of temperature of the Basement a Richard metallic thermograph was added in February, 1886. It is placed on the pier carrying the horizontal force magnet, and gives a continuous register of temperature on a scale of 5° to 1 inch, the scale for time being 24 hours to $5\frac{1}{3}$ inches. On the northern wall, near the photographic barometer, is fixed the Sidereal Standard clock of the Astronomical Observatory, Dent 1906, communicating with the chronograph and with clocks of the Astronomical Department by means of underground wires. This clock is placed in the Magnet Basement, because of its nearly uniform temperature.

The Basement is warmed when necessary by a gas stove (of copper), and ventilated by means of a large copper tube nearly two feet in diameter, which receives the flues from the stove and all gas-lights and passes through the Upper Magnet Room to a revolving cowl above the roof. In January 1889 two additional gas stoves were provided with the object of maintaining a higher temperature during the winter and so rendering the Basement temperature more uniform throughout the year. One of these stoves is placed in the northern corner of the eastern arm, and the other in the middle of the western wall of the western arm. In December 1894 the eastern stove was removed to Magnetic Office, No. 5. Each of the arms of the Basement has a well window facing the south, but these wells are usually closely stopped up with bags packed with straw or jute. In January 1886 a line of 9-inch pipes was laid underground from the Basement southward to a distance of about 155 feet, at which point there is an inlet from the atmosphere, for the purpose of ventilating the Basement by air which has acquired the temperature of the soil at a depth of several feet below the surface, and of thus obtaining greater uniformity of temperature. The depth of the line of pipes below the surface varies from 5 feet at the inlet in the south ground to 11 feet 6 inches at the entrance to the Basement.

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

An apparatus for naphthalizing the gas used for the photographic registration is mounted in a small detached zinc-built room adjacent to the computing room on its western side.

The Dip instrument and Deflexion apparatus are placed in the New Library. Each instrument rests on a heavy slate slab supported by strong wooden framework rising from brick work built into the ground.

To the south of the Magnet House, in what is known as the Magnet Ground, is an open shed, consisting principally of a roof supported on four posts, under which is placed the photographic dry-bulb and wet-bulb thermometer apparatus. On the roof of this shed there is fixed an ozone box and a rain gauge, and close to its north-western corner are placed the earth thermometers, the upper portions of which, projecting above the ground, are protected by a small wooden hut. About 13 feet to the north of the photographic thermometers is situated the revolving stand carrying the thermometers used for ordinary eye observations, and adjacent to the thermometer stand are three rain gauges and a Stevenson screen containing dry bulb, wet bulb, and maximum and minimum thermometers. South-east of the Magnet House are placed the thermometers for solar and terrestrial radiation; they are laid on short grass, and freely exposed to the sky.

Until 1894 November 5 the Magnet Ground was bounded on its south side by a range of seven rooms, known as the Magnetic Offices. On the above-mentioned date the Offices were shifted to the western side of the Magnet Ground, the original site being required for the North Wing of the new Physical Observatory.

Two Anemometers, Osler's, giving continuous record of direction and pressure of wind, and amount of rain, and Robinson's, giving continuous record of velocity, are fixed, the former above the north-western turret of the Octagon Room (the ancient part of the Observatory), the latter above the small building on the roof of the Octagon Room.

On 1883 March 3 the iron tube of the Lassell reflecting telescope was brought into the South Ground, and on March 9 the iron supports of the same. On 1883 December 31 the iron work of the dome was brought into the same ground, and on 1884 June 26 the iron gutter of the dome, in 16 pieces, weighing together about 2 tons 6 cwt. A careful examination of the magnetic registers on each of these occasions shows that no disturbance of the declination, horizontal force, or vertical force magnets was caused by the location of these masses of iron in the South Ground, at a distance of more than 100 feet from the magnets.

In order to determine the effect of a mass of iron on the magnets, experiments were made on 1884 July 2, with 4, 8, 12, and 16 pieces of the gutter respectively, placed at a distance of 25 feet from the declination magnet in a direction south-east (magnetic) from it, so that the maximum effect would be produced. The following are the results for the deflexions of the Upper Declination magnet:—

	Mean Deflexion.	
	′	″
With 4 pieces of the iron gutter - - - -	1	4
,, 8 pieces ,, - - - -	2	2
,, 12 pieces ,, - - -	3	12
,, 16 pieces ,, - - - -	3	40

Each piece weighs nearly 3 cwt.

As the effect of a mass of iron on a magnet varies as the sine of twice its magnetic azimuth divided by the cube of its distance from the magnet, these experiments show that the deflexion caused by the whole of the iron in the Lassell instrument and dome (which is at a distance of 100 feet and very nearly in the magnetic meridian of the declination magnet) would be quite insensible.

In the year 1891 the Central Octagon of the new Physical Observatory was erected in the South Ground, and in the year 1893 the South Wing was added to the building, considerable masses of iron being introduced, viz., 10 tons in the case of the Central Octagon, the centre of which is about 115 feet from the declination magnet on a bearing 12° East of South (magnetic), and 16 tons in the South Wing at a mean distance of about 145 feet on a bearing 5° East of South (magnetic) from the declination magnet. The principal masses of iron were brought into the South Ground as follows :—on 1891 March 24 and 25, 7 and 3 tons respectively, and on 1893 February 11 and 14, $3\frac{3}{4}$ and $5\frac{1}{2}$ tons respectively. In no case could any disturbance of the magnetic registers be detected. On 1894 November 8 work for the erection of the North Wing was commenced, and the erection of the new Altazimuth building on the north side of the Magnetical Observatory was also commenced about the same time. Both buildings were in progress during the year 1895: further considerable masses of iron being introduced, viz., 12 tons on January 16, $2\frac{1}{2}$ tons on April 2, $1\frac{1}{3}$ tons on December 16, for the new Physical Observatory, and 4 tons on March 29, 5 tons on May 2, 2 tons on June 7, $1\frac{1}{3}$ tons on June 21, for the new Altazimuth building. The principal masses of iron were placed in position in the North Wing of the Physical Observatory in July, and this seems to have produced the increase of declination shown in Table I. from August onwards, the permanent effect being an increase of about 4′. The delivery and occasional storage of materials near the north end of the Library rendered the observations of dip from May to August 1895 rough and uncertain. The permanent effect from September to December 1895 seems to be a diminution of the dip amounting to about 3′ (*see* Table XVIII).

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

Introduction to the Magnetical and Meteorological Observations for the year 1880 and previous 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* 1895.

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

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

§ 4. *Magnetic Instruments.*

UPPER DECLINATION MAGNET AND ITS THEODOLITE.—The upper declination magnet, employed solely for the determination of absolute declination, is by Meyerstein of Göttingen : it is a bar of hard steel, 2 feet long, $1\frac{1}{2}$ inch broad, and about $\frac{1}{4}$ inch thick, attached by a pinching screw to the magnet carrier, also by Meyerstein, but since altered by Troughton and Simms. To a stalk extending upwards from the magnet carrier is attached the torsion circle, which consists of two circular brass discs, one turning independently of the other on their common vertical axis, the lower and graduated portion being firmly fixed to the stalk of the magnet carrier ; to the upper portion carrying the vernier is attached, by a hook, the suspension skein. This is of silk, and consists of several fibres united by juxtaposition, without apparent twist ; its length is about 6 feet.

The magnet, with its suspending skein, &c., is carried by a braced wooden tripod stand, whose feet, passing through holes cut in the floor, rest on slates covering brick piers, built from the ground and rising through the Magnet Basement nearly to its ceiling. The upper end of the suspension skein is attached to a short square wooden rod, sliding in the corresponding square hole of a fixed wooden bracket. To the upper end of the rod is fixed a leather strap, which passing over two brass pulleys carried by the upper portion of the tripod stand, is attached to a cord which passes down to a small windlass fixed to the stand. Thus in raising or lowering the magnet, an operation necessary in determinations of its collimation error, no alteration is made in the length of the suspension skein. The magnet is inclosed in a double rectangular wooden box (one box within another), both boxes being covered externally and internally with gilt paper, and having holes at their south and north ends, for illumination of the magnet-collimator and for viewing the collimator with the theodolite telescope respectively. The holes in the outer box are covered with glass. The magnet-collimator is formed by a diagonally placed cobweb-cross, and a lens of 13 inches focal length and nearly 2 inches aperture, carried by two sliding frames fixed by pinching screws to the south and north arms of the magnet respectively. The cobweb-cross is in the principal focus of the lens, and its image in the theodolite telescope is well seen. From the lower side of the magnet carrier a rod extends downwards, terminating below the magnet box in a horizontal brass bar immersed in water, for the purpose of checking small vibrations of the magnet.

The theodolite, by which the position of the upper declination magnet is observed, is by Troughton and Simms. It is planted about 7 feet north 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 stone pier placed upon the brick pier which rises from the ground through the Magnet Basement. 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 eyepiece 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. Early in 1893 the theodolite was thoroughly repaired by Messrs. Troughton and Simms, and a new striding level was applied. The value of one division of this level is 1″·5. The opening in the roof of the Magnet House permits of observation of circumpolar stars as high as δ Ursæ Minoris above the pole and as low as β Cephei below the pole. A fixed mark, consisting of a small hole in a plate of metal, placed on one of the buildings of the Astronomical Observatory, at a distance of about 270 feet from the theodolite, affords an additional check on its continued steadiness.

The inequality of the pivots of the axis of the theodolite telescope was re-determined on 1893, February 7 and March 28, after the above-mentioned repairs, and it was found that the correction required is $-4^{div}\cdot5$ equivalent to $-6''\cdot75$, with illuminated pivot west, the position for observation of a circumpolar star.

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

The reading for the line of collimation of the theodolite telescope was found by ten double observations on 1894 December 7 to be $100^r\cdot237$; on 1895 May 23, $100^r\cdot224$; on 1895 August 22, $100^r\cdot230$; on 1895, October 31, $100^r\cdot244$; and on 1895 December 12, $100^r\cdot206$. The value used throughout the year 1895 was $100^r\cdot200$.

The effect of the plane glass in front of the outer box of the declination-magnet at that end of the box towards the theodolite was determined by ten double observations made on 1893 December 6, which showed that in the ordinary position of the glass the theodolite readings were diminished by $19''\cdot9$. Two other sets of observations, made on 1894 December 10, and 1895 December 12, gave $20''\cdot7$ and $20''\cdot1$ respectively. The mean of these, $20''\cdot2$ has been added to all readings throughout the year 1895.

The error of collimation of the magnet collimator is found by observing the position of the magnet, first with its collimator in the usual position (above the magnet), then with the collimator reversed (or with the magnet placed in its carrier with the collimator below), repeating the observations several times. The value used during the year 1895 was $26'.\ 3''\cdot8$, being the mean of determinations made on 1891 November 26, 1892 November 29, 1893 December 7, 1894 December 10, and 1895 December 12, giving respectively $25'.\ 55''\cdot1$, $26'.\ 7''\cdot1$, $26'.\ 6''\cdot5$, $26'.\ 1''\cdot8$, and $26'.\ 8''\cdot5$. With the collimator in its usual position, above the magnet, the quantity $26'.\ 3''\cdot8$ has been subtracted from all readings.

The effect of torsion of the suspending skein is eliminated by turning the lower portion of the torsion-circle until the torsion bar (an oak bar of the same size as the magnet, and weighted with lead weights to be also of equal weight), inserted in place of the magnet, rests in the plane of the magnetic meridian. The bar is thus inserted usually about once a month, 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 skein. Such correction is determined experimentally, with the magnet in position, by changing the reading of the torsion-circle by a definite amount, usually 90°, thus giving the skein 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 skein to the couple due to the earth's horizontal magnetic force. This ratio was found to be, $\frac{1}{120}$ on 1894 August 28, $\frac{1}{132}$ on 1894 December 10, and $\frac{1}{133}$ on 1895 December 13. During the year 1895 the plane in which the suspension skein was free from torsion so nearly coincided with the magnetic meridian, that no correction of the absolute measures of magnetic declination for deviation of the plane of no torsion was required.

The time of vibration of the upper declination magnet under the influence of terrestrial magnetism was found on 1894 December 7 to be $30^s{\cdot}99$, and on 1895 December 12, $30^s{\cdot}80$.

The reading of the azimuthal circle of the theodolite corresponding to the astronomical meridian is determined about twice in each month by observation of the stars Polaris or δ Ursæ Minoris. The fixed mark is usually observed weekly. The concluded mean reading of the circle for the south astronomical meridian (deduced entirely from the observations of the polar stars), used from January 1 to June 7, was 27°. 0′. 24″·1, and from June 8 to December 31, 27°. 2′. 47″·6.

In regard to the manner of making observations with the upper declination magnet:—The observer on looking into the theodolite telescope sees the image of the diagonal cross of the magnet collimator vibrating alternately right and left. The time of vibration of the magnet being about 30 seconds, he first applies his eye to the telescope about one minute, or two vibrations, before the pre-arranged time of observation, and, with the vertical wire carried by the telescope-micrometer, bisects the magnet-cross at its next extreme limit of vibration, reading the micrometer. He similarly observes the next following extreme vibration, in the opposite direction, and so on, taking in all four readings. The mean of each pair of adjacent readings of the micrometer is taken, giving three means, and the mean of these three is adopted. In practice this is done by adding the first and fourth readings to twice the second and third, and dividing the sum by 6. Should the magnet be nearly free from vibration, two bisections only of the cross are made, one at the vibration next before the pre-arranged time, the other at the vibration following. The verniers of the theodolite-circle are then read. The excess of the adopted micrometer-reading above the reading for the line of collimation of the telescope being converted into arc and applied to the mean circle-reading, and also the corrections for collimation of the magnet and for collimation of the plane glass in front of its box, 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 south 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 upper declination magnet are usually $9^h. 10^m$, $13^h. 10^m$, $15^h. 10^m$, and $21^h. 10^m$ of Greenwich civil time, reckoning from midnight.

The accuracy of the measure of absolute declination by the upper declination-magnet depends on the condition that this magnet should be vertically over the lower magnet. But the arrangements are such that with the gradual decrease of declination, the upper magnet has to be shifted more and more to the west in order that it may be viewed by its theodolite, the position of which on its pier cannot be altered. In order to determine whether the consequent change in the relative position of the two magnets has in late years increased to such an extent that any measurable mutual influence would exist, the upper magnet has on two different occasions (once in the year 1887 and once in the year 1889) been temporarily removed to the ante-room, where its influence would be quite insensible. On both occasions the photographic register of the lower magnet showed no perceptible change of position. Conversely, the removal of the lower magnet would not influence the position of the upper one, which is used for absolute measure.

LOWER DECLINATION MAGNET.—The lower declination magnet is used simply for the purpose of obtaining photographic register of the variations of magnetic declination. It is by Troughton and Simms, and is of the same dimensions as the upper declination magnet, being 2 feet long, $1\frac{1}{2}$ inch broad, and $\frac{1}{4}$ inch thick. The magnet is suspended, in the Magnet Basement, immediately below the upper declination magnet, in order that the absolute measure of declination by the upper magnet should not be affected by the proximity of the lower magnet.

The manner of suspension of the magnet is in general similar to that of the upper declination magnet, the suspension pulleys being carried by a small pier built on one of the crossed slates resting on the brick piers rising from the ground. The length of free suspending skein is about 6 feet, but, unlike the arrangement adopted for the upper magnet, the skein is itself carried over the suspension pulleys. The position of the azimuthal plane in which the 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, such exact adjustment as is required for the upper declination-magnet not being necessary in this case.

To destroy the small accidental vibrations to which the magnet would be otherwise liable, it is encircled by a damper consisting of a copper bar, about 1 inch square, which is bent into a long oval form, the plane of the oval being vertical; a lateral bend is made in the upper bar of the oval to avoid interference with the suspension piece of the magnet. The effect of the damper is to reduce the amplitude of the oscillation after every complete or double vibration of the magnet in the proportion of 5 : 2 nearly.

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

The cylinder is in each case driven by chronometer or accurate clock-work to ensure uniform motion. The pivots of the horizontal cylinders turn on anti-friction wheels: the vertical cylinders rest each on a circular plate turning on anti-friction wheels, the driving mechanism being placed below. A sheet of sensitized paper being wrapped round the cylinder, and held by a slender brass clip, the cylinder thus prepared is placed in position, and connected with the clock-movement: it is then ready to receive the photographic record, the optical arrangements for producing which will be found explained in the special description of each particular instrument. The sheets are removed from the cylinders and fresh sheets supplied every day, usually at noon. On each sheet, a reference line is also photographed, the arrangements for which will be more particularly described in each special case. All parts of the apparatus and all parts of the paths of light are protected, as found necessary, by wood or zinc casings or tubes, blackened on the inside, in order to prevent stray light from reaching the photographic paper.

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

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

The light used for obtaining the photographic record is that given by a flame of coal gas, charged occasionally with the vapour of coal naphtha. A vertical slit about $0^{in}\cdot3$ long and $0^{in}\cdot01$ wide, placed close to the light, is firmly supported on the pier which carries the magnet. It stands slightly out of the straight line joining the mirror of the magnet and the registering cylinder, and its distance from the mirror is about 25 inches. The distance of the axis of the registering cylinder from the mirror is 134·4 inches. Immediately above the cylinder, and parallel to its axis, are placed two long reflecting prisms (each 11 inches in length) extending from end to end of the cylinder and facing opposite ways towards the mirrors carried by the declination and horizontal force magnets respectively. The front surface of each prism is convex, being a portion of a horizontal cylinder. The light of the declination lamp, after passing through the vertical slit, falls on the concave mirror and is thence reflected as a converging beam to form an image of the slit on the convex surface of the reflecting prism, by the action of which it is reflected downwards to the paper on the cylinder as a small spot of light. The concave mirror can be so adjusted in azimuth on the magnet that the spot shall fall not at the centre of the cylinder but rather towards its western side, in order that the declination trace shall not interfere with that of horizontal force, which is made to fall towards the eastern side of the cylinder. The special advantage of the arrangement here described is that the registers of both magnets are made at the same part of the circumference of the cylinder, a line joining the two spots being parallel to its axis, so that when the traces on the paper are developed, the parts of the two registers which appear in juxtaposition correspond to the same Greenwich time.

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

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

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

The scale for measurement of ordinates of the photographic curve is thus determined. The distance from the concave mirror carried by the magnet to the surface of the cylinder, in the actual path of the ray of light through the prism, is practically the same as the horizontal distance of the centre of the cylinder from the mirror, 134·4 inches. A movement of 1° of the mirror produces a movement of 2° in the reflected ray. From this it is found that 1° of movement of the mirror, representing a change of 1° of magnetic declination, is equal to 4·691 inches on the photographic paper. A small strip of cardboard is therefore prepared, graduated on this scale to degrees and minutes. The ordinates of the curve as referred to the base line being measured for the times at which absolute values of declination were determined by the upper declination magnet, 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 upper and lower 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 *xxxii*) 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 two declination magnets, is 2 feet long, $1\frac{1}{2}$ inch broad, and about $\frac{1}{4}$ inch thick. For support of its suspension skein the back and sides of its brick pier rise through the eastern arm of the Magnet Basement to the upper Magnet Room, being there covered by a slate slab, to the top of which a brass plate is attached, carrying, immediately above the magnet, two brass pulleys, with their axes in the same east and west line; and at the back of the pier, and opposite to these pulleys, two others, with their axes similarly in an east and west line: these constitute the upper suspension piece, and support the upper portions of the two branches of the suspension skein. The two lower pulleys, having their axes in the same horizontal plane, and their grooves in the same vertical plane, are attached to a small horizontal bar which forms the upper portion of the torsion circle: it carries the verniers for reading the torsion circle, and can be turned independently of the lower and graduated portion of the torsion circle, below which, and in rigid connexion with it, is the magnet carrier.

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

Below the magnet carrier there is attached a small plane mirror to which is directed a small telescope for the purpose of observing by reflexion the graduations of a horizontal opal glass scale, attached to the southern wall of the eastern arm of the basement. The magnet, with its plane mirror, hangs within a double rectangular box, covered with gilt paper in the same way as was described for the upper declination magnet. 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 present suspension skein was mounted on 1880 December 30. On 1895 January 1 the following observations were made for determination of the angle of torsion :—

1895, Day.	The Marked End of the Magnet. West. Torsion-Circle Reading.	West. Scale Reading.	West. Difference of Scale Readings for change of 1° of Torsion-Circle Reading.	West. Mean of the Times of Vibration.	East. Torsion-Circle Reading.	East. Scale Reading.	East. Difference of Scale Readings for change of 1° of Torsion-Circle Reading.	East. Mean of the Times of Vibration.
	°	div.	div.	s	°	div.	div.	s
Jan. 1	146	50·42		21·30	230	47·31		20·72
			8·52				7·11	
	147	58·94		21·00	231	54·42		20·88
			8·05				8·35	
	148	66·99		20·76	232	62·77		21·08

From these observations it appeared that the times of vibration and scale readings were sensibly the same when the torsion circle read 147°. 0′, marked end west, and 231°. 35′, marked end east, the difference being 84°. 35′. Half this difference, or 42°. 17′, is therefore the angle of torsion when the magnet is transverse to the meridian. The value adopted in the reduction of the observations during the year 1895 was 42°. 20′.

The adopted reading of torsion-circle, for transverse position of the magnet, the marked end being west, was 147° throughout the year.

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

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

The variation of horizontal force, in terms of the whole horizontal force, producing angular motion of the magnet corresponding to change of one division of scale reading = cotan. angle of torsion × value of one division in terms of radius. Using the numbers above given, the change of horizontal force corresponding to change of one division of scale-reading was found to be 0·002350, which value has been used throughout the year 1895 for conversion of the observed scale-readings into parts of the whole horizontal force.

In regard to the manner of making observations with the horizontal force magnet. A fine vertical wire is fixed in the field of view of the observing telescope, across which the graduations of the fixed scale, as reflected by the plane mirror carried by the magnet, are seen to pass alternately right and left as the magnet oscillates, and the scale reading for the extreme points of vibration is easily taken. The hours of observation are usually $9^h\,5^m$, $13^h\,5^m$, $15^h\,5^m$, and $21^h\,5^m$ of Greenwich civil time (reckoning from midnight). Remarking that the time of vibration of the magnet is about 20 seconds, and that the observer looks into the telescope about 40 seconds before the pre-arranged time, the manner of making the observation is generally similar to that already described for the upper declination magnet.

A thermometer, the bulb of which reaches considerably below the attached scale, is so planted in a nearly upright position on the outer magnet box that the bulb projects into the interior of the inner box containing the magnet. Readings of this thermometer are usually taken at 9^h, 10^h, 11^h, 12^h, 13^h, 14^h, 15^h, 16^h, and 21^h, Greenwich civil time. An index correction of − 0°·3, has been applied to all readings.

The photographic record of the movements of the horizontal force magnet is made on the same revolving cylinder as is used for record of the motions of the lower declination magnet. And, as described for that magnet, there is also attached to the carrier of the horizontal force magnet a concave mirror, 4 inches in diameter, reduced by a stop (on the introduction of the new photographic paper) 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 *xiv* and *xv*), in which was incidentally included an explanation of some parts specially referring to register of horizontal force. The distance of the vertical slit from the concave mirror of the magnet is about 21 inches, and the distance of the axis of the registering cylinder from the concave mirror is 136·8 inches, the slit standing slightly out of the straight line joining the mirror and the registering cylinder. The same base line is used for measure of the horizontal force ordinates, and the register is similarly interrupted at each hour by the clock, and occasionally by the observer, for determination of time scale, the length of which is of course the same as that for declination.

The scale for measure of ordinates of the photographic curve is thus constructed. The distance from the concave mirror to the surface of the cylinder, in the actual path of the ray of light through the prism is (as for declination) practically the same as the horizontal distance of the centre of the cylinder from the mirror, or 136·8 inches. But, because of the reflexion at the concave mirror, the double of this measure, or 273·6 inches, is the distance that determines the extent of motion on the cylinder of the spot of light, which, in inches, for a change of 0·01 part of the whole horizontal force will therefore be 273·6 × tan. angle of torsion × 0·01. Taking for angle of torsion 42°. 20′ the movement of the spot of light on the cylinder for a change of 0·01 of horizontal force is thus found to be 2·492 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 of the scale 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 *xxxii*) are measured, exactly in the same way as described for declination.

The indications of horizontal force are in a slight degree affected by the small changes of temperature to which the Magnet Basement is subject. The temperature coefficient of the magnet was determined by artificially heating the Magnet Basement to different temperatures, and observing the change of position of the magnet thereby produced. This process seems preferable to others in which was observed the effect which the magnet, when enclosed within a copper trough or box and artificially heated by hot water or hot air to different temperatures, produced on another suspended magnet, since the result obtained includes the entire effect of temperature upon all the various parts of the mounting of the magnet, as well as on the magnet itself. Referring to previous volumes for details, it is sufficient here to state that from a series of experiments made between January 3 and February 21 of the year 1868 on the principle mentioned, in temperatures ranging from 48°·2 to 61°·5, it appeared that when the marked end of the horizontal force magnet was to the west (its ordinary position) a change of 1° of temperature (Fahrenheit) produced an apparent change of ·000174 of the whole horizontal force, a smaller number of observations made with the marked end of the magnet east, in temperatures ranging from 49°·0 to 60°·9, indicating that a change of 1° of temperature produced an apparent change of ·000187 of horizontal force, increase of temperature in both cases being accompanied by decrease of magnetic force. It was concluded that an increase of 1° of temperature produces an apparent decrease of ·00018 of horizontal force. In the years 1885 and 1886 further observations on the same general plan were made, with the result that the decrease of horizontal force for increase of 1° of temperature was found to be somewhat greater at the higher than at the lower temperatures. A discussion of all the observations taken in 1885 and 1886, details of which are given at the end of the Introduction for 1886, shows that the correction for reduction to temperature 32° (expressed in terms of the horizontal force) is $(t-32) \times \cdot 0000936 + (t-32)^2 \times \cdot 000002074$ in which t is the temperature in degrees Fahrenheit. The decrease of horizontal force for an increase of 1° of temperature (Fahrenheit) would thus be ·00021 at 60°, ·00023 at 65°, and ·00025 at 70°.

VERTICAL FORCE MAGNET.—The vertical force magnet, for measure of the variations of vertical magnetic force, is by Troughton and Simms. It is 1 ft. 6 in. long and lozenge shaped, being broad at the centre and pointed at the ends; it is mounted on a solid brick pier capped with stone, situated in the western arm of the basement, its position being nearly symmetrical with that of the horizontal force magnet in the eastern arm. The supporting frame consists of two pillars, connected at their bases, on whose tops are the agate planes upon which rest the extreme parts of the continuous steel knife edge, attached to the magnet carrier by clamps and pinching screws. The knife edge, eight 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 52¾° nearly. A telescope fixed to the west side of the brick pier supporting the theodolite of the upper declination magnet 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 four 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 new photographic paper introduced in 1882 June.

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

The time of vibration of the magnet in the vertical plane is observed usually about once in each week. From 63 observations made during the course of the year this was found to be $19^{s}\cdot081$.

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 1893 December 29 gave for the time of vibration of the magnet in the horizontal plane, $16^{s}\cdot685$. This value has been used throughout for the year 1895.

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

But the angular movement of the normal to the mirror is equal to the angular movement of the magnet multiplied by the sine of the angle which the plane of the mirror makes with a vertical plane through the magnet. This angle, as already stated, is $52\frac{3}{4}°$, therefore dividing the result just obtained, $3'. 35''\cdot6$, by Sin. $52\frac{3}{4}°$, the angular motion of the magnet corresponding to a change of one division of scale reading is found to be $4'. 30''\cdot9$.

The variation of vertical force, in terms of the whole vertical force, producing angular motion of the magnet corresponding to a change of one division of scale reading = cotan. dip $\times \left(\frac{T'}{T}\right)^2 \times$ value of one division in terms of radius, in which T' is the time of vibration of the magnet in the horizontal plane, and T that in the vertical plane. Assuming $T' = 16^{s}\cdot685$, $T = 19^{s}\cdot081$, and dip $= 67°. 15'$, the change of vertical force corresponding to change of one division of scale reading was found to be 0·0004211, and this value has been used throughout the year 1895 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 $-0°\cdot3$, 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 $= 200{\cdot}4 \times \tan.\ \text{dip} \times \left(\frac{T}{T'}\right)^2 \times 0{\cdot}01$. Using the values of T, T', and of dip, before given, (page *xxiii*), the movement of the spot of light on the cylinder for a change of 0·01 of vertical force is thus found to be, 6·250 inches, and with this unit the scale for measure of the ordinates was constructed for use throughout the year. Base line values were then determined, and written on the sheets, and new base lines laid down, from which the hourly ordinates (see page *xxxii*) 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 *xxi*), 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 New Library 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 the late Sir G. B. Airy so that the points of the needles should be viewed by microscopes and if necessary observed whilst the needles were in a state of vibration; that there should be power of employing needles of different lengths; and that the field of view of each microscope should be illuminated from the side opposite to the observer, in such way that the needle point should form a dark image in the bright field.

The instrument is adapted to the observation of needles of 9 inches, 6 inches, and 3 inches in length. The main portion of the instrument, that in which the needle under observation is placed, consists of a square box made of gun metal (carefully selected to ensure freedom from iron), with back and front of glass. Six microscopes, so planted as to command the points of the three different lengths of needles, turn on a horizontal axis so as to follow the points of the needles in the different positions which in observation they take up. The needle pivots rest on agate bearings. The object glasses and field glasses of the microscopes are within the front glass plate, their eye glasses being outside, and turning with them on the same axis. Upon the plane side of each field glass (the side next the object glass and on which the image of the needle point is formed) a scale is etched by means of which the position of the needle points is noted. And on the inner side of the front glass plate is etched the graduated circle, 9¾ inches in diameter, divided to 10′, and read by two verniers to 10″. The verniers (thin plates of metal, with notches instead of lines, for use with transmitted light) are carried by the horizontal axis, inside the front glass plate, their reading lenses, attached to the same axis, being outside. A suitable clamp with slow motion is provided. The microscopes and verniers can be illuminated by one gas lamp, the light from which falling on eight corresponding prisms is thereby directed to each separate microscope and vernier. The prisms are carried behind the back glass plate on a circular frame in such a way that, on reversion of the instrument in azimuth, the whole set of prisms can at one motion of the frame be shifted so as to bring each one again opposite to its proper microscope or vernier.

Since the instrument has been placed in the New Library artificial light has not been employed in making the observation.

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

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

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

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

The needles in regular use are of the ordinary construction; they are two 9-inch needles, B_1 and B_2, two 6-inch needles, C_1 and C_2, and two 3-inch needles, D_1 and D_2.

The observed dip given by the 9-inch needles is as usual smaller than that given by the 6-inch needles, and that given by the 6-inch needles smaller than that given by the 3-inch needles. In the *Philosophical Magazine* for March 1891, Professor Schuster, referring to a remark of Dr. Joule's, that the flexure of a dip needle tends to diminish the apparent dip, has estimated the effect on the observed dip of the displacement of the centre of gravity by the flexure of the needle, for the Greenwich needles of 3 inches, 6 inches, and 9 inches in length, and finds that a great part of the difference observed at Greenwich could be thus accounted for. It would appear that for absolute determination of dip empirical corrections should be applied to the results found from the longer needles, but there is at present much uncertainty as to the data for computing these corrections.

DEFLEXION INSTRUMENTS.—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 New Library 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 the 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 $= \mu = 0{\cdot}00015587$.

The correction for decrease of the magnetic moment of the deflecting magnet required in order to reduce to the temperature 35° Fahrenheit $= c = 0{\cdot}00013126\,(t - 35) + 0{\cdot}000000259\,(t-35)^2$; t representing the temperature (in degrees Fahrenheit) at which the observation is made.

Moment of inertia of the deflecting magnet $= K$. At temperature 30°, log. $K = 0{\cdot}66643$: at temperature 90°, log. $K = 0{\cdot}66679$.

The distance on the deflexion rod from $1^{ft}\cdot0$ east to $1^{ft}\cdot0$ west of the engraved scale, at temperature 62°, is too long by 0·0034 inch, and the distance from $1^{ft}\cdot3$ east to $1^{ft}\cdot3$ west is too long by 0·0053 inch. The coefficient of expansion of the scale for 1° is ·00001.

The adopted value of K was confirmed in the year 1878 by a new and entirely independent determination made at the Royal Observatory, giving log. K at temperature 30° = 0·66727.

Let m = Magnetic moment of deflecting or vibrating magnet.

X = Horizontal component of Earth's magnetic force.

Then, if in the two deflexion observations, r_1, r_2, be the apparent distances of centre of deflecting magnet from deflected magnet, corrected for scale error and temperature (about 1·0 and 1·3 foot).

u_1, u_2 the observed angles of deflexion.

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

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

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

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

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

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

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

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

$$\frac{\text{Log. } A_1 - \text{Log. } A_2}{\text{modulus}} \times \frac{r_1^2 \times r_2^2}{r_2^2 - r_1^2} = (\text{Log. } A_1 - \text{Log. } A_2) \times 5\cdot64.$$

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

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

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

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

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

From the combination of the values of $\frac{m}{X}$ and mX, m and X are immediately found. The computation is made with reference to English measure, taking as units of length and weight the foot and grain, but it is desirable to express X also in metric measure. If the English foot be supposed equal to α times the millimètre, and the grain equal to β times the milligramme, then for reduction to metric measure $\frac{m}{X}$ and mX must be multiplied by α^3 and $\alpha^2\beta$ respectively, or X must be multiplied by $\sqrt{\frac{\beta}{\alpha}}$. Taking the mètre as equal to 39·37079 inches, and the gramme as equal to 15·43249 grains, the factor by which X is to be multiplied in order to obtain X in metric (millimètre-milligramme-second) measure is $0{\cdot}46108 = \frac{1}{2{\cdot}1689}$. The values of X in metric measure thus derived from those in English measure are given in the proper table. Values of X in terms of the centimètre and gramme, known as the C.G.S. unit (centimètre-gramme-second unit), are readily obtained by dividing those referred to the millimètre and milligramme by 10.

In the year 1891 an additional *Unifilar Instrument*, Elliott No. 75, fitted also as a *Declinometer*, was obtained. The instrument is adapted to the determination of horizontal force in C.G.S. measure: it is of portable character, and, when employed, is mounted on the tripod stand furnished with it. The deflecting and deflected magnets, 75 A and 75 C, respectively, are generally similar in dimension and construction to those of the Gibson instrument. In observations of deflexion the deflecting magnet is placed on the transverse rod at the distances of 30 and 40 centimètres of the engraved scale from the deflected magnet, the observations being otherwise made as with the Gibson instrument. The horizontal circle is 6 inches in diameter: it is graduated to 20′, and read by two verniers to 20″.

The instrumental constants of Elliott No. 75, kindly determined, as for the Gibson instrument, at the Kew Observatory, are as follows :—

The increase in the magnetic moment of the deflecting magnet produced by the inductive action of unit magnetic force in the C.G.S. system of absolute measurement = μ. Log. μ = 0·77768.

The correction for decrease of the magnetic moment of the deflecting magnet required in order to reduce to the temperature 0° centigrade $= c = 0{\cdot}000433\ (t - 0) + 0{\cdot}00000148\ (t - 0)^2$; t representing the temperature (in degrees centigrade) at which the observation is made.

Moment of inertia of the deflecting magnet $= K$. At temperature 0° centigrade, log. $K = 2{\cdot}44750$: at temperature 30° $= 2{\cdot}44782$.

The distance on the deflexion rod, from $30^{\text{cms.}}$ east to $30^{\text{cms.}}$ west, and from $40^{\text{cms.}}$ east to $40^{\text{cms.}}$ west of the engraved scale, at temperature 0° centigrade, is in each case too short by $0^{\text{cms.}}{\cdot}020$. The coefficient of expansion of the scale for 1° centigrade is ·000018.

The value of P is calculated from the expression $P =$ (Log. A_1 − Log. A_2) × 4737. In other respects the formulæ, as before given, are employed.

EARTH CURRENT APPARATUS.—For observation of the spontaneous galvanic currents which in some measure are almost always discoverable in the earth, and which are occasionally very powerful, two insulated wires having earth connexions at Angerstein Wharf (on the bank of the River Thames near Charlton) and Lady Well for one circuit; and at the Morden College end of the Blackheath Tunnel and the North Kent East Junction of the South-Eastern Railway for the other circuit, have been employed. The connecting wires, which are special and used for no other purpose, pass from the Royal Observatory to the Greenwich Station of the South-Eastern Railway, and thence, by kind permission of the Directors of the South-Eastern Railway Company, along the lines of the Railway to the respective earths, in each case a copper plate. The direct distance between the earth plates of the Angerstein Wharf—Lady Well circuit is 3 miles, and the azimuth of the line, reckoning from magnetic north towards east, 49°; in the Blackheath—North Kent East Junction circuit the direct distance is 2½ miles, and the azimuth, from magnetic north towards west, 47°. The actual lengths of wire in the circuitous courses which the wires necessarily take in order to reach the Observatory registering apparatus are about 7½ miles and 5 miles respectively. The identity of the four branches is tested from time to time as appears necessary.

In each circuit at the Royal Observatory there is placed a horizontal galvanometer, having its magnet suspended by a hair. Each galvanometer coil contains 150 turns of No. 29 copper wire, or the double coil of each instrument consists of 300 turns of wire, the resistance as found by direct measurement being 7·3 ohms. For registration of the larger earth currents, a portion only of the current is allowed to pass through the galvanometer, while the greater part flows through a shunt, consisting of a short coil of fine copper wire, the resistance of which is 1·33 ohms. The amplitude of the movement, having regard to the diminution of resistance in the circuit due to the shunt, is by this reduced in the ratio of 6·3 to 1 nearly in both circuits. On a few days in each month registers on a large scale, for determination of the small diurnal inequality in earth currents, are obtained by removing the shunts, but no discussion of these registers has yet 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 new City and South London Electric Railway, distant about $2\frac{1}{2}$ miles from the nearest earth plate (at the North Kent East Junction of the South-Eastern Railway), and about $4\frac{1}{2}$ miles from the Observatory. The abnormal excursions recorded indicate frequent changes of potential, varying from a small fraction of a volt to one-third of a volt or more, and the amount of change is approximately the same both in the Blackheath—North Kent East Junction circuit, which is perpendicular to the course of the electric railway, and in the Angerstein Wharf—Lady Well circuit, which is parallel to the line of railway, with one earth plate (Angerstein Wharf) near the river. At night when the trains are not running, the interruptions entirely cease.

§ 5. *Magnetic Reductions.*

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

Before the photographic records of magnetic declination, horizontal force, and vertical force are discussed, they are divided into two groups; one including all days on which the traces show no particular disturbance, and which therefore are suitable for the determination of diurnal inequality; the other comprising days of unusual and violent disturbance, when the traces are so irregular that it appears impossible to treat them except by the exhibition of every motion of each magnet through the day. Following the principle of separation hitherto adopted, there are no days in the year 1895 which are classed as days of great disturbance. Other days of lesser disturbance are February 8–9, 9–10, 15–16, March 8–9, 13–14, 14–15, April 11–12, May 10–11, 29, September 30, October 12–13, 13–14, November 9–10, 10–11, 11–12, 12–13. When two days are mentioned it is to be understood that the reference is usually to one set of photographic sheets extending from noon to noon and including the last half and the first half respectively of two consecutive civil days.

Through each photographic trace including those on days of lesser disturbance, a pencil line was drawn, representing the general form of the curve, without its petty irregularities. The ordinates of these pencil curves were then measured, with the proper pasteboard scales, at every hour, the measures being entered in a form having double argument, the vertical argument ranging through the 24 hours of the civil day (0^h to 23^h), and the horizontal argument through the days of a calendar month, the means of the numbers standing in the vertical columns giving the mean daily value of the element, and the means of the numbers in the horizontal columns the mean monthly value at each hour of the day. Tables I. and II. contain the results for declination, Tables III. to VI. those for horizontal force, with corresponding tables of temperature, and Tables VII. to X. those for vertical force, with corresponding tables of temperature. In the formation of diurnal inequalities it is unimportant whether a day omitted be a complete civil day, or the parts of two successive civil days making together a whole day, although in the latter case the results are not available for daily values. No omissions have been made on account of disturbed days, in the formation of Tables I. and II. for declination, Tables III. to VI. for horizontal force, and in Tables VII. to X. for vertical force, but from other causes the following days are omitted in all these tables, viz., February 6 and 7, with the addition of December 31 in Tables VII to X.

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 $(t-32) \times {\cdot}0000936 + (t-32)^2 \times {\cdot}000002074$ (page *xxi*) where t is the temperature in degrees Fahrenheit, and to those of vertical force, Tables VII. and IX., the correction $-(t-32) \times {\cdot}000212$ (page *xxv*). The corrections applied are founded on the daily and hourly values of temperature given in Tables IV., VI., VIII., and X.

In regard to the formation of the tables of temperature, the hourly readings of the Richard thermograph were entered into a form having double arguments, as for the magnets, the mean hourly values deduced therefrom giving for each month the variation through the day, and the mean daily values the variation through the month. To adapt these to represent the temperature within the horizontal and vertical force magnet boxes respectively, the monthly means of the thermograph readings at 9^h, 10^h, 11^h, 12^h, 13^h, 14^h, 15^h, 16^h, and 21^h, were compared with the corresponding means of the eye readings of the thermometers whose bulbs are within the respective magnet boxes, giving corrections to the thermograph readings at these hours, which were very accordant, and from which by interpolation corrections were obtained for the remaining hours. The nine daily observations gave also the means of reducing the daily thermograph values to the temperature of the interior of the respective magnet boxes. The results are given in Tables IV., VI., VIII., and X.

In order to economise space the daily values as exhibited in Tables III. and VII., both uncorrected and corrected, have been diminished by constants. The division ═══ in these Tables and in Table XI. indicates that the instrument has been disturbed for experiment or adjustment, or that for some reason the continuity of the values has been broken, the constants deducted being different before and after each break. In the interval between two breaks the values of *u* and *c* are each comparable throughout, remarking only that in certain cases it is to be understood that the values are to be taken 1000 greater or less for comparison with adjacent values. See, for example, *u* in Table III. on January 5, which should be taken as 1015 for comparison with preceding and following values, and similarly in other cases. The excess of the value of *c* above that of *u* on any day (supposing *c*, when the smaller value, to be increased by 1000) shows the correction for temperature that has been actually applied. In Tables II., V., IX., and XII. the separate hourly values of the different elements have been simply diminished by the smallest hourly value.

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

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

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

$$\text{H.F. in metrical measure} \times \sin 1' = 1{\cdot}8323 \times \sin 1' = 0{\cdot}0005330.$$

For variation of horizontal force, the factor is

$$\text{H.F. in metrical measure} = 1{\cdot}8323,$$

and for variation of vertical force

$$\text{V. F. in metrical measure} = \text{H. F. in metrical measure} \times \tan \text{dip},$$
$$= 1{\cdot}8323 \times \tan 67^\circ.15' = 4{\cdot}3695.$$

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 *xxxii*), and the monthly means of these numbers, the results for horizontal force being corrected for temperature. The first portion of Table XIV. contains the difference between the greatest and least hourly mean values in each month, for declination, horizontal force, and vertical force, as extracted from Table II., and columns *c* of Tables V. and IX. In the second portion of the table there are given for each month the numerical sums of the deviations of the 24 hourly values from the mean, taken without regard to sign.

The magnetic diurnal inequalities of declination, horizontal force, and vertical force, for each month and for the year, as given in Tables II., V. and IX., have been treated by the method of harmonic analysis, and the results are given in Tables XV. and XVI. The values of the coefficients contained in Table XV. have been thus computed, 0 representing the value at 0^h (midnight), 1 that at 1^h, and so on.

$$m = \frac{1}{24}\,(0+1+2\ldots\ldots22+23).$$

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

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

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

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

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

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

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

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

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

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

Similarly for c_2, β, &c.

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

$$\alpha' = \alpha + h$$
$$\beta' = \beta + 2h$$
$$\&c. = \&c.,$$

a mean value of h for the month being employed.

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

1895.	a_5.	b_5.
Declination	−0′·08	−0′·04
Horizontal Force......	+1·0	−1·3
Vertical Force	+0·6	−0·2

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 1895.	Declination.	Horizontal Force.	Vertical Force.
Sums of Squares of Observed Values (Table XII.)	336′·81	415953·8	18133·3
Sums of Squares of Residuals after the introduction of m	170·91	72798·3	5455·7
,, ,, a_1 and b_1	54·14	16395·4	2565·8
,, ,, a_2 and b_2	7·72	3104·2	290·0
,, ,, a_3 and b_3	0·90	681·1	52·6
,, ,, a_4 and b_4	0·11	45·8	9·3
,, ,, a_5 and b_5	0·02	15·1	4·3

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 six 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 instruments 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 1895 no copies of earth-current curves have been given because of the interruption produced by the trains running on the City and South London Electric Railway. The registers thus exhibited are those for the days of lesser disturbance mentioned on page *xxxii*.

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

The plates are preceded by a brief description of *all* other significant magnetic motions (superposed on the ordinary diurnal movement) recorded throughout the year. These, in combination with the plates, give very complete information on magnetic disturbances during the year 1895, 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 (xxxviii).

An additional plate (VII.) 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 *xxxiii*, will show the effect produced. Briefly, an increase of about $4\frac{1}{2}°$ of temperature throws the horizontal force curve upward by 0·001 of the whole horizontal force; an increase of about 5° of temperature throws the vertical force curve downward by 0·001 of the whole vertical force.

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

—	LENGTH IN INCHES					
	Of 1° of Declination.		Of 0·01 of Horizontal Force.		Of 0·01 of Vertical Force.	
	in.	mm.	in.	mm.	in.	mm.
On the Photographs	4·691	119·15	2·492	63·31	6·250	158·75
On the Plates	2·580	65·53	1·371	34·82	3·437	87·31

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

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

$$= \cdot 0175 \text{ of Horizontal Force}$$

$$\text{and Vertical Force} = \text{Horizontal Force} \times \tan. \text{ dip } [\text{dip} = 67°. 15']$$

$$= \text{Horizontal Force} \times 2 \cdot 3847$$

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	2·49	63·3	2·62	66·6
On the Plates -	1·47	37·4	1·37	34·8	1·44	36·6

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 1895	= 3·9739
Millimètre-milligramme-second,	or Metric unit, ,, ,, ,,	= 1·8323
Centimètre-gramme-second,	or C. G. S. unit, ,, ,, ,,	= 0·18323

Dividing therefore the scale values last given by 3·9739, 1·8323, and 0·18323 respectively, the following comparative scale values for each of the elements on the photographs and on the plates as referred to 0·01 of these units respectively are found :—

Unit.	Length of 0·01 of Unit.											
	Declination.				Horizontal Force.				Vertical Force.			
	On the Photographs.		On the Plates.		On the Photographs.		On the Plates.		On the Photographs.		On the Plates.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.
British - -	0·67	17·1	0·37	9·4	0·63	15·9	0·35	8·8	0·66	16·8	0·36	9·2
Metric - -	1·46	37·2	0·80	20·4	1·36	34·5	0·75	19·0	1·43	36·3	0·79	20·0
C. G. S. - -	14·6	372·	8·0	204·	13·6	345·	7·5	190·	14·3	363·	7·9	200·

Slight interruptions in the traces on the plates are due to various causes. In the originals there are breaks at each hour for time scale, so slight however that, in the copies, the traces could usually be made continuous without fear of error : in a few cases, however, this could not be done. Further, to check the numeration of hours, the observer interrupts the register at definite times for about five minutes, usually at or near $9^h. 30^m$, $13^h. 30^m$, and $20^h. 30^m$, Greenwich civil time, and at somewhat different times on Sundays. A weekly clearing of the gas pipes also causes a somewhat longer interruption, usually at about 10^h.

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

§ 6. *Meteorological Instruments.*

STANDARD BAROMETER.—The standard barometer, mounted in 1840 on the southern wall of the western arm of the upper magnet room, is Newman No. 64. Its tube is $0^{in}\cdot565$ in diameter and the depression of the mercury due to capillary action is $0^{in}\cdot002$, but no correction is applied on this account. The cistern is of glass, and the graduated scale and attached rod are of brass ; at its lower end the rod terminates in a point of ivory, which in observation is made just to meet the reflected image of the point as seen in the mercury. The scale is divided to $0^{in}\cdot05$, sub-divided by vernier to $0^{in}\cdot002$.

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

An elaborate comparison of the standard barometers of the Greenwich and Kew Observatories, made in the spring of the year 1877, under the direction of the Kew Committee, by the late Mr. Whipple, showed that the difference between the two barometers (after applying to the Greenwich barometer readings the correction $-0^{in}\cdot006$) did not exceed $0^{in}\cdot001$. (*Proceedings of the Royal Society*, vol. 27, page 76.)

The height of the barometer cistern above the mean level of the sea is 159 feet, being $5^{ft.}\ 2^{in.}$ above Mr. Lloyd's reference mark in the then transit room, now the Astronomer Royal's official room. (*Philosophical Transactions*, 1831.)

The barometer is read at 9^h, 12^h (noon), 15^h, 21^h (civil reckoning) on week days, and at 10^h, noon and 20^h on Sundays. Each reading is corrected by application of the index correction above mentioned, and reduced to the temperature 32° by means of Table II. of the "Report of the Committee of Physics" of the Royal Society. The readings thus found are used to determine the value of the instrumental base line on the photographic record.

PHOTOGRAPHIC BAROMETER.—The barometric record is made on the same cylinder as is used for magnetic vertical force, the register being arranged to fall on the upper half of the cylinder, on its eastern side. A siphon barometer fixed to the northern wall of the Magnet Basement is employed, the bore of the upper and lower extremities of the tube being about 1·1 inch, and that of the intermediate portion 0·3 inch. A metallic plunger, floating on the mercury in the shorter arm of the siphon is partly supported by a counterpoise acting on a light lever, leaving a definite part of its weight to be supported by the mercury. The lever carries at its other end a vertical plate of blackened mica, having a small horizontal slit, whose distance from the fulcrum is about eight times that of the point of connexion with the float, and whose vertical movement is therefore about four times that of the ordinary barometric column. The light of a gas lamp, passing through this slit and falling on a cylindrical lens, forms a spot of light on the paper. The barometer can, by screw action, be raised or lowered so as to keep the photographic trace in a convenient part of the sheet. A base line is traced on the sheet, and the record is interrupted at each hour by the clock and occasionally by the observer in the same way as for the magnetic registers. The length of the time scale is also the same.

The barometric scale is determined by experimentally comparing the measured movement on the paper with the observed movement of the standard barometer; one inch of barometric movement is thus found = $4^{in}\cdot39$ 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 *liv*) 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 dry and wet bulb thermometers and maximum and minimum self-registering thermometers, both dry and wet, are mounted on a revolving frame planned by the late Sir G. B. Airy. A vertical axis fixed in the ground, in a position about 14 feet south of the southern arm of the Magnetic Observatory, 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.

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 comparison with the standard thermometer, No. 515, kindly supplied to the Royal Observatory by the Kew Committee of the Royal Society.

The dry and wet bulb thermometers are Negretti and Zambra, Nos. 45354 and 45355 respectively. The correction $-$ 0°·3 has been applied to the dry bulb and wet bulb readings throughout the year.

The self-registering thermometers for temperature of air and evaporation are all by Negretti and Zambra. The maximum thermometers are on Negretti and Zambra's principle, the minimum thermometers are of Rutherford's construction. To the readings of Negretti and Zambra, No. 8527, for maximum temperature of the air a correction of $-$ 1°·0 has been applied, and to those of Negretti and Zambra, No. 38338, for minimum temperature of the air, a correction of + 0°·2 throughout. The readings of Negretti and Zambra, No. 79224, for maximum temperature of evaporation, and those of Negretti and Zambra, No. 2048, for minimum temperature of evaporation, required no correction.

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

In January 1887, three thermometers, a dry-bulb, a maximum, and a minimum, to which a wet-bulb thermometer was added in February, 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 6 feet to the eastward of the revolving frame carrying the ordinary dry-bulb and wet-bulb 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°·2 has been applied. The wet-bulb is Hicks No. 268525, to the readings of which a correction of + 0°·1 has been applied. The maximum thermometer is Negretti and Zambra, No. 68725, which requires no correction. The minimum thermometer is Hicks No. 262739, to the readings of which the following corrections have been applied: below 34° 0°·0, 34° to 39° + 0°·1, 39° to 43° + 0°·2, 43° to 49° + 0°·3, 49° to 54° + 0°·4, 54° to 60° + 0°·5, 60° to 65° + 0°·6, and above 65° + 0°·7. 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. No. 45356, by Negretti and Zambra, is for eye observation of the temperature of the air, and required a correction of − 0°·3. No. 37467, also by Negretti and Zambra, is a self-registering maximum thermometer, and required a correction of − 0°·5. No. 342663, by Hicks, is a self-registering minimum thermometer, and required correction as follows: below 35° 0°·0, between 35° and 45° + 0°·1, between 45° and 55° + 0°·2, and above 55° + 0°·3. The bulbs of all these thermometers are 4 feet above the platform, and about 20 feet above the ground. The observation of the thermometer No. 45356 is omitted on Sundays and a few other days.

The order of reading the thermometers in the Stevenson screen and on the roof of the Magnet House is reversed on successive days, the readings being taken alternately before and after those of the thermometers on the revolving stand, in order that the diurnal change may not produce any systematic difference in the comparison of the results.

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

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

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

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

RADIATION THERMOMETERS.—These thermometers are placed in the Magnet Ground, south-east of the Magnet House. 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 till 1895 July 12, was Negretti and Zambra, No. 49230; afterwards, Negretti and Zambra, No. 72540, was used. 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; 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 at the north-west corner of the photographic thermometer shed.

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 one inch in the ground, another, No. 6, whose bulb is freely exposed in the centre of the hut.

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

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

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

Whilst the action of the pressure apparatus has been satisfactory for moderate winds, it is believed that the record of occasional very large pressures in years preceding 1882 was due principally to irregular action, in excessive gusts, of the connecting copper wire, but the brass chain being always in tension, the movements of the recording pencil have since been in complete sympathy with those of the pressure plate, and in this condition of the apparatus, that is since the year 1882, no pressure greater than about 30 lbs. has been recorded, with the exception of those on 1893 December 12 and 1894 February 11.

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. On 1893 April 22, Mr. Kullberg applied a special gearing to the clock, which is so arranged that the table carrying the record can either be driven at the usual rate, or 12 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 two hours instead of 24. This arrangement continued in use until 1894 July, when the gearing was again modified so that the registering sheet could be carried at twenty-four times its usual rate instead of twelve times as at first arranged.

ROBINSON'S ANEMOMETER.—This instrument, made by Mr. Browning, is constructed on the principle described by the late 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 one 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 one 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 1895 eight rain-gauges were employed, placed at different elevations above the ground, complete information in regard to which will be found at page (civ) of the Meteorological Section.

The gauge No. 1 forms part of the Osler Anemometer apparatus, and is self-registering, the record being made on the sheet on which the direction and pressure of the wind are recorded. The receiving surface is a rectangular opening 10 × 20 inches (200 square inches in area). The collected water passes into a vessel suspended by spiral springs, which lengthen as the water accumulates, until 0·25 inch is collected. The water then discharges itself by means of the following modification of the siphon. A vertical copper tube, open at both ends, is fixed in the receiver, with one end just projecting below the bottom. Over this tube a larger tube, closed at the top, is loosely placed. The accumulating water, having risen to the top of the inner tube, begins to flow off into a small tumbling bucket, fixed in a globe placed underneath, and carried by the receiver. When full the bucket falls over, throwing the water into a small exit pipe at the lower part of the globe—the only outlet. This creates a partial vacuum in the globe sufficient to cause the longer leg of the siphon to act, and the whole remaining contents of the receiver then run off, through the globe, to a waste pipe. The spiral springs at the same time shorten, and raise the receiver. The gradual descent of the water vessel as the rain falls, and the immediate ascent on discharge of the water, act upon a pencil, and cause a corresponding trace to be made on the paper fixed to the moving board of the anemometer. The rain scale on the paper was determined experimentally by passing a known quantity of water through the receiver. The continuous record thus gives complete information on the rate of the fall of rain.

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

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

Gauges Nos. 6, 7, and 8 are also eight-inch circular gauges, placed on the ground south of the Magnetic Observatory; No. 6 is the old daily 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, the monthly amounts collected by these gauges having occasionally shown greater differences than seemed proper. On 1894 November 6, gauge No. 8 was shifted 61 feet eastwards. No. 6 is read daily, usually at 9^h, 15^h and 21^h Greenwich civil time, and Nos. 7 and 8 at 9^h only.

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

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

For a full description of the principle of the electrometer reference may be made to Sir William Thomson'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.

Sir William Thomson'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 six feet into the atmosphere, the nozzle (about ten 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.

The electrometer having been in use for ten years, it was removed by Messrs. Elliott on 1888 July 12 for thorough cleaning and repair. After return it was found that its indications were altogether changed. The instrument was not again brought into use during the year 1888, and it was finally sent to the maker, Mr. White of Glasgow, who restored it to its normal state, excepting that the amplitude of motion of the spot of light is considerably increased. The instrument was brought into use again in October 1889.

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 the late 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. The instrument is placed on a table upon the platform above the Magnetic Observatory, about 21 feet above the ground, and 176 feet above mean sea level. A range of trees in Greenwich Park between east and south-east cause a little interruption of the record very shortly after sunrise from early in September to early in November. But very little record is obtained near to sunrise at any part of the year.

A comparison between the two instruments for one complete year, 1886 June 1 to 1887 May 31, will be found at the end of the Introduction to the Volume for the year 1887.

[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 of the glass globe, which appears to have deteriorated].

OZONOMETER.—This apparatus is fixed on the south-west corner of the roof of the Photographic Thermometer shed, at a height of about 10 feet from the ground. The box in which the papers are exposed is of wood: it is about 8 inches square, blackened inside, and so constructed that there is free circulation of air through the box, without exposure of the paper to light. The papers exposed at 9^h, 15^h, and 21^h, are collected respectively at 15^h, 21^h, and 9^h, and the degree of tint produced is compared with a scale of graduated tints, numbered from 0 to 10. The value of ozone for the civil day is determined by taking the degree of tint obtained at each hour of collection as proportional to the period of exposure. Thus to form the value for any given civil day, three-fourths of the value registered at 9^h, the values registered at 15^h and 21^h, and one-fourth of that registered at the following 9^h, are added together, the resulting sum (which appears in the tables of "Daily Results of the Meteorological Observations") being taken as the value referring to the civil day on a scale of 0 to 30. The means of the 9^h, 15^h, and 21^h values, as observed, are also given for each month in the foot notes.

§ 7. *Meteorological Reductions.*

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

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

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

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

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

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

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

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

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

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

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

The daily register of rain contained in column 16 is that recorded by the gauge No. 6, whose receiving surface is 5 inches above the ground. This gauge is usually read at 9^h, 15^h, and 21^h Greenwich civil time. The continuous record of Osler's self-registering gauge shows whether the amounts measured at 9^h are to be placed to the same, or to the preceding civil day; and in cases in which rain fell both before and after midnight, also gives the means of ascertaining the proper proportion of the 9^h amount which should be placed to each civil day. The number of days of rain given in the foot notes, and in the abstract tables, pages (lxvii) and (civ), is formed from the records of this gauge. In this numeration only those days are counted on which the fall amounted to or exceeded $0^{in}\cdot005$.

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 foot notes on the right-hand pages (xl) to (lxii), and in the abstract table, page (lxvii), is the mean found from observations made usually at 9^h, 12^h (noon), 15^h, and 21^h, of each civil day.

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

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

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

The following is the notation employed for Electricity:—

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

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

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

In regard to the comparisons of the extremes and means, &c. of meteorological elements with average values, contained in the foot notes, it may be mentioned that comparison is in all cases made with mean values determined from the observations for the fifty years 1841–1890.

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

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

It may be pointed out that the monthly means, 0^h to 23^h, for barometer and temperature of the air and of evaporation contained in these tables, pages (lxviii) and (lxix), do not in some cases agree with the monthly means given in the daily results, pages (xl) to (lxiii), and in the table on page (lxvii), 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 oot notes, 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 (xci), exhibits every change of direction of the wind occurring throughout the year whenever such change amounted to two nautical points or 22½°. 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 11¼°. From the numbers given in this table the monthly and yearly excess of motion, page (xcviii), is formed. By direct motion it is to be understood that the change of direction occurred in the order N, E, S, W, N, &c., and by retrograde motion that the change occurred in the order N, W, S, E, N, &c.

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

In regard to the observations of Luminous Meteors, it is simply necessary to say that in general only special meteor showers are watched for, such as those of April, August, and November. The observers of meteors in the year 1895 were Mr. Dyson, Mr. Claxton, Mr. Beadle and Mr. Marchant; their observations are distinguished by the initials D, C, B and M respectively.

W. H. M. CHRISTIE.

Royal Observatory, Greenwich,
1897 October 29.

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL OBSERVATIONS,

1895.

The absolute values of the Magnetic Elements are to some extent affected by the masses of iron introduced in building the North Wing of the new Physical Observatory and the new Altazimuth Pavilion. *See* Introduction.

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

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

1895.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	16°	16°	16°	16°	16°	16°	16°	16°	16°	16°	16°	16°
d	′	′	′	′	′	′	′	′	′	′	′	′
1	57.9	61.2	58.4	57.6	56.4	55.7	55.9	55.6	56.0	59.2	59.1	56.5
2	59.3	59.3	59.4	58.1	56.6	55.9	55.0	55.4	57.1	59.3	59.9	56.7
3	58.7	58.6	58.2	57.5	56.2	54.4	56.0	56.4	57.2	58.9	59.0	56.7
4	58.9	58.6	58.9	58.0	56.4	54.7	55.9	55.8	56.2	58.7	59.1	57.0
5	58.3	58.7	58.6	58.3	55.9	56.2	55.3	57.3	57.4	59.1	59.4	56.5
6	59.5	...	59.5	56.9	55.9	54.9	56.2	56.7	57.2	58.5	58.6	56.8
7	58.4	...	58.9	57.5	56.6	55.7	55.0	57.6	57.4	57.8	59.0	57.6
8	58.2	58.5	58.5	57.4	56.1	55.7	55.7	56.5	56.8	58.9	59.5	56.8
9	58.5	58.0	58.3	57.4	55.9	55.2	55.2	58.0	56.8	59.9	58.6	56.4
10	59.0	58.2	58.8	57.0	57.3	55.7	54.3	57.0	57.9	59.0	57.1	56.0
11	58.8	57.7	58.3	57.1	55.9	55.7	56.0	57.9	57.6	59.2	58.2	57.3
12	58.5	58.3	58.1	58.5	56.7	56.3	55.6	56.3	57.1	58.8	57.4	57.1
13	58.4	59.1	57.2	58.8	55.6	55.8	55.2	56.2	57.6	56.4	57.1	57.1
14	58.1	59.0	57.6	58.3	55.7	56.0	54.7	56.7	57.0	58.3	58.5	57.3
15	58.3	56.4	56.9	58.4	55.8	56.1	55.5	55.9	57.6	56.5	57.5	58.0
16	58.9	57.5	55.8	57.5	58.1	56.6	54.8	56.3	56.8	58.4	58.1	58.4
17	58.2	58.3	56.8	57.7	57.8	57.8	54.5	56.3	55.8	57.4	57.7	58.9
18	58.0	58.0	57.5	58.1	57.6	55.8	55.3	55.9	57.3	59.0	57.8	57.9
19	58.2	58.2	58.4	56.8	57.7	56.0	54.7	56.5	57.2	57.7	57.9	57.7
20	57.5	58.2	57.7	56.7	56.8	56.6	55.5	56.2	56.7	58.4	57.8	57.5
21	59.0	57.9	58.0	57.3	56.8	56.2	54.1	56.0	58.2	59.0	58.0	57.7
22	58.7	58.3	57.0	57.5	57.6	57.1	54.5	56.2	57.1	58.6	57.6	57.8
23	59.3	58.4	57.6	57.0	57.4	56.6	55.6	57.5	57.6	58.2	57.6	58.0
24	59.3	59.2	57.0	56.7	57.6	57.0	55.4	57.8	58.4	58.8	57.6	58.1
25	59.6	58.8	58.7	58.0	58.0	55.6	55.1	57.5	58.5	59.2	58.9	58.6
26	59.0	58.6	58.6	56.8	56.9	55.7	55.4	57.2	58.6	59.1	58.7	58.8
27	59.6	57.7	57.7	57.0	57.5	56.0	54.5	57.0	58.3	60.1	55.8	57.9
28	59.9	58.5	58.4	56.4	57.8	55.3	54.5	56.6	59.0	59.2	56.7	58.6
29	60.6		58.1	56.8	58.0	54.7	55.3	56.8	58.7	57.9	56.7	58.4
30	59.0		56.8	57.0	55.7	54.6	53.9	57.2	60.2	58.3	56.5	58.2
31	60.1		57.3		56.7		55.3	57.0		57.1		58.4

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

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

1895.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	′	′	′	′	′	′	′	′	′	′	′	′
Midn.	1.3	0.5	0.5	3.6	3.6	5.1	3.2	2.2	1.5	0.3	1.2	0.0
1h	2.0	0.8	0.6	3.9	3.5	5.0	2.8	1.9	1.6	0.3	2.0	0.6
2	2.3	1.0	1.3	4.1	3.3	4.1	2.5	1.5	1.9	0.4	2.8	1.2
3	2.3	1.7	1.7	3.8	3.2	3.6	2.5	1.4	2.0	1.0	3.2	1.7
4	2.4	2.3	1.5	3.2	2.7	2.8	2.1	1.3	1.6	1.4	3.5	1.8
5	2.4	2.7	1.6	2.5	1.6	1.4	0.8	0.9	1.4	1.6	3.7	1.8
6	2.5	2.7	1.7	1.7	0.6	0.3	0.0	0.2	0.8	1.9	3.7	1.8
7	2.4	2.7	1.2	0.3	0.0	0.0	0.3	0.0	0.0	1.9	3.6	1.9
8	2.4	2.7	0.1	0.0	0.6	0.6	0.8	0.2	0.1	1.4	3.3	1.8
9	2.9	2.6	0.0	0.9	2.2	2.4	1.8	1.4	1.5	1.6	3.1	2.0
10	4.1	3.5	2.2	3.9	5.1	5.1	4.0	3.6	3.6	3.3	3.9	2.8
11	5.0	5.5	5.2	7.5	8.6	8.6	6.8	6.5	6.5	5.9	5.7	3.8
Noon.	6.0	7.4	7.8	10.9	11.3	11.8	9.9	9.2	8.8	7.7	7.1	4.9
13h	6.3	8.5	9.5	12.6	12.4	13.4	11.6	10.1	9.4	8.2	7.4	5.5
14	5.2	8.2	9.2	12.1	12.0	13.7	12.1	9.8	8.7	7.7	7.1	4.8
15	4.4	7.0	7.8	10.4	10.6	12.7	11.0	8.1	7.1	6.5	6.3	3.8
16	4.3	5.9	5.5	8.2	9.2	11.3	9.2	6.1	5.2	4.8	4.8	3.3
17	4.1	4.8	3.7	6.4	7.6	9.5	7.5	4.6	3.9	3.1	3.9	2.9
18	3.3	3.6	2.4	4.8	6.1	7.7	6.4	3.7	3.3	2.3	3.9	2.3
19	2.3	2.9	1.3	3.4	4.8	6.2	5.7	3.6	2.9	1.5	2.9	1.5
20	1.2	1.8	0.6	3.2	4.2	6.0	5.1	3.6	2.3	0.4	1.2	0.7
21	0.0	1.0	0.2	3.2	4.2	5.8	4.9	3.3	1.9	0.0	0.3	0.5
22	0.2	0.4	0.3	2.9	4.1	5.5	4.5	2.9	1.7	0.1	0.0	0.4
23	0.7	0.0	0.6	3.2	3.7	5.1	3.8	2.5	1.5	0.1	0.3	0.2
Means	2.92	3.34	2.77	4.86	5.22	6.15	4.97	3.69	3.30	2.64	3.54	2.17

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.*)

1895.

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	900	468	018	548	112	694	987	581	218	776	320	921	318	943	484	134	402	025	484	146	455	047	331	920
2	927	452	962	520	050	639	981	580	179	751	318	888	316	932	424	076	436	083	505	147	378	994	284	902
3	949	519	006	576	041	625	980	584	158	735	278	858	333	937	430	075	455	120	556	148	417	013	373	962
4	955	556	060	654	025	605	028	620	155	737	215	865	349	953	472	100	313	003	571	163	460	076	344	936
5	015	599	139	644	041	640	977	559	173	750	304	910	425	024	521	134	273	935	534	109	460	044	417	004
6	910	516	...	...	057	644	980	564	130	753	304	903	365	959	481	104	307	987	620	231	465	057	425	012
7	918	531	...	...	125	673	031	613	122	740	161	786	384	983	421	039	319	015	646	209	443	037	356	955
8	954	550	164	524	110	692	071	646	123	722	238	878	438	061	458	086	343	046	628	208	455	056	176	770
9	970	535	018	443	038	625	094	671	127	728	232	889	382	019	500	145	375	063	651	238	352	951	274	870
10	909	501	940	396	033	656	083	694	152	753	227	892	399	041	265	927	397	103	641	223	172	797	328	920
11	899	507	006	477	096	678	961	562	086	692	221	851	432	077	275	942	357	024	658	252	275	885	280	876
12	977	533	062	533	103	707	934	528	142	748	269	863	410	045	342	989	392	012	653	237	308	830	316	917
13	982	559	131	598	053	635	943	561	090	735	301	881	275	881	379	016	432	038	456	050	292	881	328	908
14	001	585	126	576	976	556	005	575	154	779	328	912	323	943	393	033	528	146	575	157	302	896	304	905
15	043	615	050	504	990	596	011	598	172	776	303	890	280	881	457	104	509	105	561	153	333	915	365	973
16	064	648	972	461	055	651	029	630	206	778	341	925	272	876	423	098	568	162	587	169	365	971	363	955
17	045	610	035	524	078	650	041	635	161	753	340	941	301	926	440	123	596	202	405	985	345	934	384	983
18	975	571	138	592	080	645	045	656	192	793	278	865	303	955	416	078	621	234	490	089	331	901	399	988
19	993	568	078	615	028	620	088	675	244	850	323	931	276	928	426	083	601	221	500	104	313	905	398	982
20	984	578	043	601	063	657	069	697	259	860	356	940	401	021	433	105	558	140	492	096	362	963	402	995
21	019	603	029	630	030	653	124	711	284	907	339	931	427	040	416	099	591	183	514	096	372	978	390	982
22	989	566	071	655	050	670	182	762	259	889	358	005	456	050	443	152	608	185	520	102	380	986	306	886
23	989	595	040	663	042	634	188	770	314	922	383	033	446	045	448	154	630	217	492	069	288	860	297	886
24	011	583	977	585	072	680	102	703	322	923	381	038	487	100	402	067	670	290	475	028	142	724	267	859
25	046	606	015	578	105	699	197	755	282	917	345	965	520	157	397	017	633	300	427	064	225	833	276	872
26	004	576	073	665	023	617	161	745	267	927	362	985	519	171	465	083	632	312	445	051	271	858	323	922
27	032	583	125	707	024	616	127	707	335	934	408	043	436	113	465	093	642	330	357	941	218	812	337	943
28	021	601	043	642	017	609	150	720	339	926	353	978	407	059	454	077	617	297	275	876	261	848	352	958
29	953	542			003	592	139	750	350	937	324	966	437	067	464	104	626	298	253	866	345	944	395	032
30	967	571			020	607	195	801	306	895	337	967	443	073	430	082	473	138	305	887	348	964	478	079
31	002	615			994	571			249	872			473	120	400	035			343	971			509	103

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

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

1895.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d 1	66°·4	64°·8	67°·0	67°·5	66°·0	67°·8	68°·8	69°·8	68°·7	70°·3	67°·4	67°·3
2	64·6	66·0	67·3	67·7	66·6	66·5	68·4	69·9	69·7	69·5	68·4	68·5
3	66·5	66·5	67·1	67·9	66·8	66·9	67·9	69·6	70·4	67·4	67·6	67·3
4	67·8	67·5	66·9	67·4	67·0	69·8	67·9	68·9	71·4	67·4	68·4	67·4
5	67·1	63·7	67·7	67·0	66·8	68·0	67·7	68·3	70·3	66·7	67·1	67·2
6	68·0	...	67·2	67·1	68·7	67·7	67·5	68·7	71·0	68·2	67·4	67·2
7	68·3	...	65·6	67·0	68·5	68·8	67·7	68·5	71·6	66·2	67·5	67·7
8	67·6	56·8	67·0	66·7	67·7	69·4	68·7	68·9	71·9	66·9	67·8	67·5
9	66·3	60·0	67·2	66·8	67·8	70·1	69·3	69·6	71·3	67·2	67·7	67·6
10	67·4	61·5	68·7	68·2	67·8	70·4	69·5	70·3	72·0	67·0	68·8	67·4
11	68·1	62·2	67·0	67·8	68·0	69·0	69·6	70·5	70·5	67·5	68·2	67·6
12	65·9	62·2	67·9	67·5	68·0	67·5	69·2	69·7	68·6	67·1	66·6	67·8
13	66·8	62·0	67·0	68·5	69·6	66·9	68·0	69·3	68·0	67·5	67·3	66·9
14	67·1	61·2	66·9	66·5	68·8	67·1	68·6	69·4	68·5	67·0	67·5	67·8
15	66·6	61·4	68·0	67·2	67·9	67·2	67·8	69·7	67·6	67·4	67·0	68·1
16	67·1	63·0	67·6	67·8	66·6	67·1	67·9	70·8	67·5	67·0	68·0	67·4
17	66·3	63·0	66·6	67·5	67·4	67·8	68·8	71·1	68·0	66·9	67·3	67·7
18	67·6	61·4	66·3	68·2	67·8	67·2	69·9	70·3	68·3	67·7	66·5	67·3
19	66·7	65·1	67·4	67·2	68·0	68·1	69·9	70·1	68·6	67·9	67·4	67·1
20	67·5	66·0	67·5	68·9	67·8	67·1	68·6	70·7	67·0	67·9	67·8	67·5
21	67·1	67·8	68·7	67·2	68·7	67·4	68·3	71·1	67·4	67·0	68·0	67·4
22	66·8	67·1	68·6	66·9	69·0	69·7	67·5	72·1	66·8	67·0	68·0	66·9
23	68·0	68·7	67·4	67·0	68·1	69·8	67·7	72·0	67·2	66·8	66·6	67·3
24	66·6	68·1	68·1	67·8	67·8	70·1	68·3	70·4	68·6	65·8	67·0	67·4
25	66·1	66·2	67·5	66·0	69·2	68·6	69·3	68·6	70·5	69·3	68·1	67·6
26	66·6	67·4	67·5	67·1	70·2	68·7	69·9	68·5	71·0	68·0	67·2	67·7
27	65·7	67·0	67·4	66·9	67·7	69·2	70·9	68·9	71·3	67·1	67·5	68·0
28	66·9	67·7	67·4	66·5	67·2	68·8	69·9	68·7	71·0	67·8	67·2	68·0
29	67·3		67·3	68·2	67·2	69·5	69·0	69·4	70·7	68·3	67·7	69·3
30	67·9		67·2	68·0	67·3	69·0	69·0	69·9	70·4	67·0	68·4	67·8
31	68·3		66·8		68·7		69·7	69·2		68·9		67·5
Means	67°·00	64°·40	67°·35	67°·40	67°·89	68°·37	68°·75	69°·77	69°·53	67°·54	67°·58	67°·59

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.*)

1895.

Hour, Greenwich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c
Midnight.	16	47	44	76	177	196	265	282	184	196	226	243	207	223	166	188	171	198	170	187	64	78	15	34
1h	32	56	38	64	165	182	258	272	175	185	221	236	201	215	163	180	168	192	163	180	67	81	14	30
2	42	61	49	67	161	173	239	251	158	168	200	212	199	211	158	173	165	184	147	162	77	88	19	33
3	52	66	64	78	163	170	229	236	157	164	180	190	184	193	153	163	168	185	152	164	82	93	29	38
4	62	74	77	86	171	176	229	236	154	161	180	188	172	179	145	152	160	174	170	180	89	98	44	53
5	72	81	95	102	180	182	218	223	143	148	163	168	157	164	138	143	149	158	180	187	102	111	59	66
6	81	88	110	115	183	185	201	203	115	120	122	127	122	126	118	120	140	147	173	178	102	111	64	71
7	83	90	105	108	172	174	160	162	69	74	76	79	85	87	81	83	104	108	146	151	97	106	65	72
8	60	64	87	90	144	146	109	111	31	34	29	29	52	54	39	39	44	48	97	100	77	83	54	58
9	22	24	50	50	82	82	36	38	7	10	0	0	17	17	10	7	4	6	36	39	37	43	33	35
10	1	3	20	20	27	27	0	0	0	0	4	4	0	0	0	0	0	0	0	0	15	19	13	13
11	0	0	0	0	0	0	26	26	19	19	38	38	11	13	7	7	21	23	8	8	6	8	0	0
Noon.	6	3	15	15	36	33	76	73	75	73	94	94	54	56	46	46	74	78	54	52	1	0	5	0
13h	31	31	53	53	85	85	135	132	107	105	137	137	109	113	90	92	111	118	98	96	0	2	16	11
14	55	59	70	75	118	118	191	191	148	146	197	200	165	169	136	141	141	150	120	120	20	22	20	17
15	57	66	72	81	144	144	221	223	177	175	233	238	203	210	157	164	146	160	132	135	46	50	33	30
16	40	49	59	71	162	162	250	255	213	211	251	256	225	234	160	170	149	166	143	146	72	74	45	42
17	36	52	38	50	158	158	276	281	247	245	289	297	257	266	168	180	169	188	157	160	85	84	45	40
18	36	60	48	69	167	164	299	304	270	268	324	332	279	291	188	200	192	211	158	163	86	88	48	43
19	31	59	69	97	185	182	303	305	269	267	327	335	285	297	202	217	196	220	166	171	83	85	39	39
20	21	47	75	105	193	190	296	298	253	251	309	319	271	283	202	219	194	218	177	184	92	96	36	38
21	13	44	65	95	199	199	293	298	224	224	281	291	257	271	189	209	180	207	171	178	84	88	31	35
22	14	42	60	95	204	209	279	286	199	204	254	269	245	264	179	201	183	212	163	170	60	66	35	44
23	18	51	49	88	193	210	270	284	191	201	236	253	230	249	167	189	181	210	159	174	61	72	22	41
Means corrected for Temperature.	50·7		72·9		147·8		207·1		152·0		189·0		174·4		136·8		148·4		136·9		68·6		36·8	

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

1895.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight.	67·7	65·2	68·0	67·9	68·3	68·8	69·1	70·3	70·0	68·0	67·9	68·2	68·28
1h	67·4	64·9	67·9	67·8	68·2	68·7	69·0	70·1	69·9	68·0	67·9	68·1	68·16
2	67·2	64·6	67·7	67·7	68·2	68·6	68·9	70·0	69·7	67·9	67·8	68·0	68·02
3	67·0	64·4	67·5	67·5	68·1	68·5	68·8	69·8	69·6	67·8	67·8	67·8	67·88
4	66·9	64·2	67·4	67·5	68·1	68·4	68·7	69·7	69·5	67·7	67·7	67·8	67·80
5	66·8	64·1	67·3	67·4	68·0	68·3	68·7	69·6	69·3	67·6	67·7	67·7	67·71
6	66·7	64·0	67·3	67·3	68·0	68·3	68·6	69·5	69·2	67·5	67·7	67·7	67·65
7	66·7	63·9	67·3	67·3	68·0	68·2	68·5	69·5	69·1	67·5	67·7	67·7	67·62
8	66·6	63·9	67·3	67·3	67·9	68·1	68·5	69·4	69·1	67·4	67·6	67·6	67·56
9	66·5	63·8	67·2	67·3	67·9	68·1	68·4	69·3	69·0	67·4	67·6	67·5	67·50
10	66·5	63·8	67·2	67·2	67·8	68·1	68·4	69·4	68·9	67·3	67·5	67·4	67·46
11	66·4	63·8	67·2	67·2	67·8	68·1	68·5	69·4	69·0	67·3	67·4	67·4	67·46
Noon.	66·3	63·8	67·1	67·1	67·7	68·1	68·5	69·4	69·1	67·2	67·3	67·2	67·40
13h	66·4	63·8	67·2	67·1	67·7	68·1	68·6	69·5	69·2	67·2	67·4	67·2	67·45
14	66·6	64·0	67·2	67·2	67·7	68·2	68·6	69·6	69·3	67·3	67·4	67·3	67·53
15	66·8	64·2	67·2	67·3	67·7	68·3	68·7	69·7	69·5	67·4	67·5	67·3	67·63
16	66·8	64·3	67·2	67·4	67·7	68·3	68·8	69·8	69·6	67·4	67·4	67·3	67·66
17	67·1	64·3	67·2	67·4	67·7	68·4	68·8	69·9	69·7	67·4	67·3	67·2	67·70
18	67·4	64·7	67·1	67·4	67·7	68·4	68·9	69·9	69·7	67·5	67·4	67·2	67·78
19	67·6	65·0	67·1	67·3	67·7	68·4	68·9	70·0	69·9	67·5	67·4	67·4	67·85
20	67·5	65·1	67·1	67·3	67·7	68·5	68·9	70·1	69·9	67·6	67·5	67·5	67·89
21	67·7	65·1	67·2	67·4	67·8	68·5	69·0	70·2	70·0	67·6	67·5	67·6	67·97
22	67·6	65·3	67·4	67·5	68·0	68·7	69·2	70·3	70·1	67·6	67·6	67·8	68·09
23	67·8	65·5	67·9	67·8	68·2	68·8	69·2	70·3	70·1	67·9	67·8	68·2	68·29

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.)*

1895.

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	014	293	913	213	854	104	839	099	710	991	758	016	757	979	723	945	745	971	778	970	523	777	510	762
2	000	287	950	231	850	106	848	104	704	964	728	013	741	978	725	943	741	946	769	989	540	781	505	729
3	038	294	951	207	844	100	854	091	704	970	717	985	741	986	729	958	765	957	728	992	543	797	490	737
4	074	305	956	201	821	077	844	094	701	959	760	978	727	974	708	949	815	990	715	977	564	782	477	724
5	047	297	889	228	859	109	810	070	706	970	758	008	732	984	677	937	803	997	679	939	550	808	477	729
6	073	291	...	...	823	068	773	020	732	965	748	008	747	001	689	934	800	981	684	925	525	787	481	737
7	072	298	...	...	798	066	790	044	729	974	735	970	739	984	692	942	825	992	676	957	532	796	483	724
8	037	297	603	071	810	072	763	019	716	972	779	005	760	982	694	935	841	006	674	945	550	808	485	735
9	993	264	715	117	828	069	769	023	720	976	799	008	760	972	699	925	826	001	674	942	596	846	475	727
10	014	251	713	081	864	076	786	012	730	988	803	006	765	974	765	966	832	992	654	920	609	838	477	731
11	029	260	751	104	836	071	784	025	708	966	782	015	746	951	775	982	813	011	645	899	598	845	475	720
12	977	245	745	113	845	084	745	980	715	965	752	010	751	971	747	973	762	993	645	890	578	844	470	724
13	952	214	729	097	846	091	782	000	737	955	717	983	686	929	738	971	730	980	636	883	562	824	448	706
14	982	234	728	115	868	128	715	979	758	993	708	953	700	931	722	961	706	943	597	855	574	828	451	688
15	970	228	730	109	862	109	733	972	739	997	700	947	716	961	728	959	702	956	641	891	565	825	462	686
16	982	234	747	092	849	092	747	978	710	976	693	938	705	948	771	974	694	950	654	925	581	833	454	697
17	978	242	745	086	845	097	725	968	725	979	728	969	709	931	811	003	689	939	655	919	575	831	455	692
18	006	249	711	100	835	099	739	986	727	966	704	945	720	921	813	007	700	939	643	901	549	822	445	695
19	998	250	813	096	880	127	719	983	714	959	724	959	734	941	808	004	700	935	629	870	543	801	432	686
20	021	281	851	124	880	115	756	961	703	965	710	972	728	961	811	999	697	965	642	881	547	784	425	672
21	022	272	865	102	899	130	758	993	719	945	703	950	712	953	826	003	695	957	615	883	553	796	418	665
22	006	264	871	121	906	141	727	987	725	939	754	961	697	953	837	995	672	934	589	849	560	807	412	674
23	011	248	899	123	900	150	738	992	696	937	785	988	695	949	847	007	675	929	585	835	550	812	402	664
24	990	250	924	159	895	136	753	990	692	939	791	992	705	938	831	023	697	923	555	828	530	798	414	664
25	953	217	863	131	875	137	712	991	718	923	758	991	725	945	781	012	741	929	590	806	532	777	421	656
26	953	207	854	099	887	134	730	982	741	953	746	977	758	963	757	988	765	948	589	828	518	772	414	661
27	926	186	857	109	901	142	736	994	711	963	749	971	778	972	750	974	784	957	589	845	496	750	401	642
28	930	177	870	115	889	143	726	999	694	937	729	955	777	995	755	984	791	970	578	834	488	740	416	651
29	950	191			857	113	761	992	698	945	753	962	744	981	762	971	785	973	557	798	494	735	435	638
30	950	181			865	115	766	007	740	998	761	983	733	970	760	963	790	980	538	802	518	751	411	656
31	953	182			857	119			747	982			720	949	759	979			554	785			...	...

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.

1895.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d 1	66°·0	65°·0	67°·4	66°·9	65°·9	67°·0	68°·7	68°·7	68°·5	70°·1	67°·2	67°·3
2	65·6	65·9	67·1	67·1	66·9	65·7	68·0	68·9	69·5	68·8	67·8	68·6
3	67·1	67·1	67·1	68·0	66·6	66·5	67·6	68·4	70·1	66·7	67·2	67·5
4	68·3	67·6	67·1	67·4	67·0	68·9	67·5	67·8	70·9	66·8	68·9	67·5
5	67·4	63·2	67·4	66·9	66·7	67·4	67·3	66·9	70·0	66·9	67·0	67·3
6	68·9	...	67·6	67·5	68·2	66·9	67·2	67·6	70·6	67·8	66·8	67·1
7	68·5	...	66·5	67·2	67·6	68·1	67·6	67·4	71·3	65·9	66·7	67·8
8	66·9	57·1	66·8	67·1	67·1	68·5	68·7	67·8	71·4	66·4	67·0	67·4
9	66·4	60·2	67·8	67·2	67·1	69·3	69·2	68·5	70·9	66·5	67·4	67·3
10	68·0	61·8	69·2	68·5	67·0	69·6	69·3	69·7	71·6	66·6	68·4	67·2
11	68·3	62·5	68·1	67·8	67·0	68·2	69·5	69·4	69·8	67·2	67·5	67·6
12	66·5	61·8	67·9	68·1	67·4	67·0	68·8	68·5	68·3	67·6	66·6	67·2
13	66·8	61·8	67·6	68·9	68·9	66·6	67·7	68·2	67·4	67·5	66·8	67·0
14	67·3	60·9	66·9	66·7	68·1	67·6	68·3	67·9	68·0	67·0	67·2	68·0
15	67·0	61·3	67·5	67·9	67·0	67·5	67·6	68·3	67·2	67·4	66·9	68·6
16	67·3	62·9	67·7	68·3	66·6	67·6	67·7	69·6	67·1	66·4	67·3	67·7
17	66·7	63·1	67·3	67·7	67·2	67·8	68·7	70·1	67·4	66·7	67·1	68·0
18	67·7	60·8	66·7	67·5	67·9	67·8	69·7	70·0	67·9	67·0	66·3	67·4
19	67·3	65·8	67·5	66·7	67·6	68·1	69·4	69·9	68·1	67·8	67·0	67·2
20	66·9	66·3	68·1	69·5	66·8	66·8	68·2	70·3	66·5	67·9	68·0	67·5
21	67·4	68·0	68·3	68·1	68·5	67·5	67·8	70·8	66·8	66·5	67·7	67·5
22	67·0	67·4	68·1	66·9	69·1	69·4	67·1	71·7	66·8	66·9	67·5	66·8
23	68·0	68·6	67·4	67·2	67·8	69·6	67·2	71·6	67·2	67·4	66·8	66·8
24	66·9	68·1	67·8	68·0	67·5	69·7	68·2	70·1	68·5	66·3	66·5	67·4
25	66·7	66·5	66·8	66·0	69·5	68·2	68·8	68·3	70·3	69·0	67·6	68·1
26	67·2	67·6	67·5	67·3	69·2	68·3	69·5	68·3	70·5	67·9	67·2	67·5
27	66·9	67·3	67·8	67·0	67·3	68·7	70·0	68·6	71·0	67·1	67·2	67·8
28	67·5	67·6	67·2	66·3	67·7	68·5	68·9	68·4	70·7	67·1	67·3	68·1
29	67·8		67·1	68·3	67·5	69·3	68·0	69·3	70·3	67·8	67·8	69·6
30	68·3		67·4	67·8	67·0	68·7	68·0	69·6	70·2	66·7	68·2	67·6
31	68·4		66·8		68·1		68·4	68·8		68·3		...
Means	67°·32	64°·47	67°·47	67°·53	67°·54	68°·03	68°·34	69°·01	69°·16	67°·29	67°·30	67°·61

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.)

1895.

Hour, Greenwich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December	
	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c	u	c
Midnight.	36	7	35	1	32	9	51	30	60	47	51	34	44	29	45	24	39	17	27	12	12	8	22	5
1h	26	3	28	2	27	8	42	23	54	41	40	26	35	22	38	21	33	13	16	1	7	5	16	3
2	18	1	24	5	23	8	34	17	51	40	36	26	28	17	32	20	30	14	11	0	2	2	11	0
3	15	1	20	5	21	10	30	17	50	39	42	34	25	17	29	19	25	14	11	2	0	0	8	1
4	11	1	18	7	20	11	28	17	53	44	51	45	28	22	28	22	21	12	6	0	1	4	7	2
5	8	0	11	5	18	11	33	24	56	49	57	51	33	29	31	27	22	17	7	3	2	5	8	5
6	7	1	8	4	19	15	40	34	55	48	57	53	36	34	31	29	28	27	10	8	2	5	9	8
7	8	2	9	7	28	26	47	41	54	47	56	54	37	37	36	36	33	34	17	17	7	12	11	12
8	8	4	13	11	30	28	42	36	46	41	50	50	31	33	32	34	28	31	20	22	8	13	9	13
9	4	2	10	10	22	22	29	25	33	28	35	37	23	25	23	28	19	25	15	19	7	14	5	13
10	5	5	5	5	10	10	17	15	18	13	19	21	12	14	11	16	8	14	5	9	2	11	2	10
11	2	4	0	0	1	1	5	5	4	2	4	6	3	3	2	4	0	3	0	4	1	10	0	8
Noon.	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	6	6	15	4	14
13h	5	5	8	8	10	8	12	10	14	14	11	9	10	6	12	10	13	10	13	15	18	25	12	22
14	16	12	24	20	26	24	31	27	37	35	31	29	30	26	30	24	30	23	31	31	31	38	24	32
15	21	15	42	34	43	41	50	44	53	51	49	45	48	42	47	39	43	32	45	43	37	44	28	34
16	22	14	55	44	60	58	62	56	66	64	64	58	64	56	59	49	51	37	50	48	40	49	27	33
17	26	12	66	53	69	67	71	62	79	77	81	73	75	67	64	52	52	36	51	49	37	46	24	32
18	38	17	71	49	62	62	76	67	87	85	92	84	78	67	64	52	51	33	52	48	36	45	28	32
19	44	19	76	48	58	56	75	66	86	84	92	82	73	60	62	47	53	33	52	46	38	45	31	30
20	43	18	70	38	59	55	68	59	79	77	84	74	66	53	62	45	54	32	46	40	33	40	32	27
21	42	13	64	32	51	44	62	51	69	67	76	64	61	46	58	37	53	28	39	30	26	33	30	23
22	36	9	57	20	39	28	56	41	64	55	69	52	57	38	57	34	52	25	32	23	19	24	27	16
23	36	5	53	14	38	17	54	33	65	52	63	46	51	32	53	30	47	20	27	14	18	16	24	7
Means corrected for Temperature.	7·2		17·6		25·8		33·3		45·4		43·9		32·3		29·1		22·1		20·4		21·2		15·9	

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

1895.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight.	68°·1	65°·4	68°·3	68°·1	67°·9	68°·5	68°·7	69°·6	69°·7	67°·8	67°·7	68°·4	68°·17
1h	67·8	65·0	68·1	68·0	67·9	68·4	68·6	69·4	69·6	67·8	67·6	68·2	68·03
2	67·5	64·7	67·9	67·9	67·8	68·2	68·5	69·2	69·4	67·6	67·5	68·1	67·86
3	67·4	64·5	67·7	67·7	67·8	68·1	68·4	69·1	69·2	67·5	67·5	67·9	67·74
4	67·2	64·3	67·6	67·6	67·7	68·0	68·3	68·9	69·1	67·4	67·4	67·8	67·61
5	67·1	64·1	67·5	67·5	67·6	68·0	68·2	68·8	68·9	67·3	67·4	67·7	67·51
6	67·0	64·0	67·4	67·4	67·6	67·9	68·1	68·7	68·7	67·2	67·4	67·6	67·42
7	67·0	63·9	67·3	67·4	67·6	67·8	68·0	68·6	68·6	67·1	67·3	67·5	67·34
8	66·9	63·9	67·3	67·4	67·5	67·7	67·9	68·5	68·5	67·0	67·3	67·4	67·28
9	66·8	63·8	67·2	67·3	67·5	67·6	67·9	68·4	68·4	66·9	67·2	67·2	67·18
10	66·7	63·8	67·2	67·2	67·5	67·6	67·9	68·4	68·4	66·9	67·1	67·2	67·16
11	66·6	63·8	67·2	67·1	67·4	67·6	68·0	68·5	68·5	66·9	67·1	67·2	67·16
Noon.	66·6	63·8	67·2	67·1	67·3	67·7	68·0	68·6	68·7	66·9	67·1	67·1	67·17
13h	66·7	63·8	67·3	67·2	67·3	67·8	68·2	68·7	68·8	67·0	67·2	67·1	67·26
14	66·9	64·0	67·3	67·3	67·4	67·8	68·2	68·9	69·0	67·1	67·2	67·2	67·36
15	67·0	64·2	67·3	67·4	67·4	67·9	68·3	69·0	69·2	67·2	67·2	67·3	67·45
16	67·1	64·3	67·3	67·4	67·4	68·0	68·4	69·1	69·3	67·2	67·1	67·3	67·49
17	67·4	64·4	67·3	67·5	67·4	68·1	68·4	69·2	69·4	67·2	67·1	67·2	67·55
18	67·7	64·8	67·2	67·5	67·4	68·1	68·5	69·2	69·5	67·3	67·1	67·4	67·64
19	67·9	65·1	67·3	67·5	67·4	68·2	68·6	69·3	69·6	67·4	67·2	67·6	67·76
20	67·9	65·3	67·4	67·5	67·4	68·2	68·6	69·4	69·7	67·4	67·2	67·8	67·82
21	68·1	65·3	67·5	67·6	67·4	68·3	68·7	69·6	69·8	67·5	67·2	67·9	67·91
22	68·0	65·5	67·7	67·8	67·7	68·5	68·9	69·7	69·9	67·5	67·3	68·1	68·05
23	68·2	65·6	68·2	68·1	67·9	68·5	68·9	69·7	69·9	67·7	67·6	68·4	68·22

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, 1895.	DECLINATION WEST in Arc.	HORIZONTAL FORCE in terms of the whole Horizontal Force (diminished by a Constant).	VERTICAL FORCE in terms of the whole Vertical Force (diminished by a Constant).	DECLINATION diminished by 16° and expressed as Westerly Force. (in terms of GAUSS'S METRICAL UNIT.)	HORIZONTAL FORCE (diminished by a Constant). (in terms of GAUSS'S METRICAL UNIT.)	VERTICAL FORCE (diminished by a Constant). (in terms of GAUSS'S METRICAL UNIT.)
January	16° 58'·8	563	1248	3134	1032	5453
February	16. 58·4	572	1129	3113	1048	4933
March	16. 58·0	640	1107	3091	1173	4837
April	16. 57·5	655	1011	3065	1200	4418
May	16. 56·8	815	965	3027	1493	4217
June	16. 55·9	923	981	2979	1691	4286
July	16. 55·2	1012	962	2942	1854	4203
August	16. 56·7	1076	973	3022	1972	4252
September	16. 57·5	1139	965	3065	2087	4217
October	16. 58·5	1099	889	3118	2014	3884
November	16. 58·0	934	800	3091	1711	3496
December	16. 57·6	944	696	3070	1730	3041
Means	16° 57'·4	......	......	3060	......	......
Number of Column	1	2	3	4	5	6

The units in columns 2 and 3 are ·00001 of the whole Horizontal and Vertical Forces respectively; in columns 4, 5, and 6 the unit is ·00001 of the Millimètre-Milligramme-Second Unit, or ·000001 of the Centimètre-Gramme-Second (C.G.S.) Unit, in terms of which units the values of whole Horizontal Force (applicable to columns 4 and 5) are 1·8323 and 0·18323 respectively for the year, and of whole Vertical Force (applicable to column 6) are 4·3695 and 0·43695 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 1895.

(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 (in terms of GAUSS'S METRICAL UNIT)	HORIZONTAL FORCE (in terms of GAUSS'S METRICAL UNIT)	VERTICAL FORCE (in terms of GAUSS'S METRICAL UNIT)
Midnight.	′ 0·75	155·1	15·4	40·0	284·2	67·3
1h	0·91	148·9	10·8	48·5	272·8	47·2
2	1·03	141·4	9·3	54·9	259·1	40·6
3	1·17	137·8	10·0	62·4	252·5	43·7
4	1·05	139·2	12·4	56·0	255·1	54·2
5	0·70	137·2	15·6	37·3	251·4	68·2
6	0·32	125·4	19·0	17·1	229·8	83·0
7	0·02	100·6	23·9	1·1	184·3	104·4
8	0·00	64·1	23·1	0·0	117·5	100·9
9	0·70	22·1	16·6	37·3	40·5	72·5
10	2·59	0·0	8·7	138·0	0·0	38·0
11	5·13	4·6	1·0	273·4	8·4	4·4
Noon.	7·40	36·4	0·0	394·4	66·7	0·0
13h	8·41	74·1	8·6	448·2	135·8	37·6
14	8·05	110·1	23·5	429·1	201·7	102·7
15	6·81	132·5	35·5	363·0	242·8	155·1
16	5·31	145·8	44·0	283·0	267·1	192·3
17	4·00	159·6	49·0	213·2	292·4	214·1
18	2·98	175·5	50·2	158·8	321·6	219·3
19	2·08	182·3	48·1	110·9	334·0	210·2
20	1·36	180·1	43·3	72·5	330·0	189·2
21	0·94	171·1	35·8	50·1	313·5	156·4
22	0·75	164·6	27·2	40·0	301·6	118·9
23	0·64	161·3	20·6	34·1	295·5	90·0
Means . . .	′ 2·63	119·6	23·0	140·1	219·1	100·4
Number of Column	1	2	3	4	5	6

The units in columns 2 and 3 are ·00001 of the whole Horizontal and Vertical Forces respectively; in columns 4, 5, and 6 the unit is ·00001 of the Millimètre-Milligramme-Second Unit, or ·000001 of the Centimètre-Gramme-Second (C.G.S.) Unit, in terms of which units the values of whole Horizontal Force (applicable to columns 4 and 5) are 1·8323 and 0·18323 respectively, and of whole Vertical Force (applicable to column 6) are 4·3695 and 0·43695 respectively.

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

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

1895.

Day of Month.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.	Dec.	H.F.
d	′		′		′		′		′		′		′		′		′		′		′		′	
1	14·1	734	14·0	226	14·8	237	13·1	343	12·9	219	10·8	393	17·5	640	11·5	266	10·1	289	12·4	435	9·4	174	8·3	147
2	9·6	295	15·0	253	10·8	277	14·0	391	11·8	366	15·8	567	13·1	380	11·7	257	12·2	322	7·9	200	7·2	287	8·6	108
3	5·9	107	7·0	182	13·7	215	11·1	263	9·0	270	15·6	535	10·5	255	12·0	277	11·7	345	9·5	188	7·3	206	4·3	155
4	6·1	122	5·6	244	8·6	195	11·3	287	10·7	266	18·0	643	12·2	450	9·4	288	19·6	568	9·3	234	9·2	207	4·9	129
5	2·6	133	7·0	163	11·0	364	16·1	317	10·9	296	14·8	458	13·4	315	13·4	227	12·4	358	11·7	359	8·6	270	5·0	124
6	10·6	299	...	...	9·1	497	12·8	379	12·1	366	17·1	451	18·6	506	16·1	219	10·2	193	12·3	362	6·4	169	3·4	168
7	7·2	134	...	...	6·7	205	13·2	256	17·3	278	15·9	420	13·1	361	15·7	316	7·8	208	8·0	296	4·2	148	18·8	496
8	6·5	213	16·7	392	18·6	270	13·2	363	17·5	366	16·3	389	12·6	259	14·0	354	9·0	198	12·0	280	7·8	335	11·3	245
9	11·3	315	18·1	496	11·6	361	15·8	318	15·2	306	19·4	322	16·0	332	10·8	272	7·9	246	12·7	307	28·3	585	7·2	272
10	13·6	164	17·3	289	9·0	247	16·5	381	22·0	383	16·3	443	15·2	350	17·5	620	9·4	195	7·8	249	20·9	374	9·2	172
11	8·3	317	8·1	264	7·1	221	23·3	774	13·2	280	16·7	468	18·6	299	10·7	420	10·5	246	9·9	248	13·5	326	6·2	108
12	7·0	151	6·9	193	8·5	262	13·1	587	10·7	265	16·4	370	20·0	252	13·0	295	9·1	260	15·5	326	12·4	311	8·0	103
13	2·9	118	7·2	224	23·9	448	14·6	472	10·3	286	14·7	402	19·0	484	11·3	324	11·3	315	28·6	357	14·7	198	7·3	133
14	4·2	125	14·0	99	17·0	399	12·6	327	16·0	315	18·5	272	12·8	505	8·3	355	16·4	380	14·6	232	4·2	124	9·2	147
15	6·1	146	17·4	235	13·2	388	14·7	340	16·9	321	13·1	227	7·4	360	5·7	225	18·1	424	15·2	317	21·0	304	7·2	137
16	11·5	162	16·6	238	15·8	283	19·0	384	13·5	301	12·4	370	10·5	270	9·8	202	9·8	261	12·3	235	6·8	166	5·5	128
17	12·6	249	13·6	340	12·7	432	10·0	337	10·7	198	9·2	275	9·2	264	9·3	307	11·8	240	19·7	565	6·2	110	5·5	155
18	17·4	174	7·3	129	10·2	225	14·9	299	12·5	375	10·3	404	10·8	237	15·5	170	10·6	269	7·5	155	10·4	133	5·8	133
19	14·7	155	6·8	133	9·0	232	14·2	377	10·1	294	13·8	327	12·0	320	11·3	229	14·8	332	9·6	220	7·2	144	5·1	121
20	11·6	197	9·2	194	10·6	192	11·7	285	10·9	333	15·9	270	9·3	358	12·6	260	14·5	303	12·0	227	7·8	176	6·0	107
21	7·6	158	8·0	171	13·6	177	11·4	332	14·2	303	16·9	372	14·3	365	13·9	337	10·5	248	7·5	177	6·5	138	11·4	318
22	7·6	111	9·1	133	12·6	245	12·3	289	12·9	360	16·6	398	12·2	324	11·4	321	9·8	228	8·4	200	9·2	210	10·7	245
23	6·8	116	8·6	253	11·0	218	18·4	334	11·9	335	13·7	314	12·8	226	12·5	312	9·0	306	8·2	218	19·1	397	11·4	175
24	7·5	101	22·9	362	11·8	160	11·8	319	15·8	326	13·2	275	13·7	351	11·4	223	8·4	264	7·5	246	18·3	373	12·5	272
25	5·3	104	8·4	161	15·8	225	14·6	374	16·9	306	15·3	339	11·9	355	9·5	254	12·0	320	7·8	189	7·9	155	6·9	214
26	2·5	117	7·0	180	13·7	277	13·1	320	15·6	218	12·9	317	14·9	494	10·9	210	11·1	256	14·4	379	9·7	234	5·0	64
27	2·5	108	10·0	113	14·4	284	13·2	401	14·0	385	12·6	375	14·6	480	9·7	181	7·2	193	14·4	476	11·2	130	7·1	87
28	6·2	124	12·2	194	14·0	282	11·3	293	16·0	310	10·6	350	10·0	390	8·2	125	9·2	186	20·6	272	10·4	219	3·3	77
29	6·5	219			10·0	359	12·2	293	10·8	454	14·3	343	12·9	275	9·4	211	10·2	190	15·0	332	7·7	182	4·5	88
30	4·8	87			13·8	317	11·0	355	13·6	198	15·9	585	11·9	369	14·5	219	14·1	587	10·8	351	6·3	168	6·5	115
31	3·8	65			13·5	435			16·0	383			12·7	359	13·4	256			10·0	203			5·4	136
Means.....	7·9	181	11·3	225	12·5	288	13·8	360	13·6	312	14·8	389	13·3	361	11·8	275	11·3	291	12·0	285	10·7	232	7·5	164

The mean of the twelve monthly values is, for Declination 11′·71, and for Horizontal Force 280·2.

TABLE XIV.—MONTHLY MEAN DIURNAL RANGE, and SUMS of HOURLY DEVIATIONS from MEAN, for DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE, as deduced from the Monthly Mean Diurnal Inequalities, Tables II., V., and IX.

(The Declination is expressed in minutes of arc: the units for Horizontal Force and Vertical Force are ·00001 of the whole Horizontal and Vertical Forces respectively. The results for Horizontal Force and Vertical Force are corrected for temperature.)

Month, 1895.	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	6′·3	90	19	32′·8	433	128
February	8·5	115	53	48·4	540	361
March	9·5	210	67	58·9	1093	415
April	12·6	305	67	68·5	1856	380
May	12·4	268	85	72·0	1583	414
June	13·7	335	84	79·3	2051	433
July	12·1	297	67	71·3	1891	355
August	10·1	219	52	57·2	1399	269
September	9·4	220	37	53·6	1321	218
October	8·2	187	49	51·8	1089	350
November	7·4	111	49	37·3	674	353
December	5·5	72	34	29·4	333	244
Means	9′·64	202·4	55·2	55′·04	1188·6	326·7

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

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

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

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

Month, 1895.	m	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4
	DECLINATION WEST.								
	′	′	′	′	′	′	′	′	′
January	2·92	− 2·04	− 0·16	+ 0·39	+ 0·95	− 0·24	+ 0·29	+ 0·42	+ 0·07
February	3·34	− 3·02	− 0·89	+ 0·27	+ 1·31	− 0·46	− 0·48	+ 0·25	+ 0·25
March	2·77	− 2·94	− 1·27	+ 1·16	+ 2·10	− 0·65	− 0·94	+ 0·35	+ 0·23
April	4·86	− 2·65	− 2·32	+ 2·07	+ 2·57	− 0·92	− 0·70	+ 0·32	+ 0·13
May	5·22	− 2·92	− 3·02	+ 2·03	+ 1·90	− 0·82	− 0·34	+ 0·16	− 0·13
June	6·15	− 2·69	− 4·03	+ 2·14	+ 2·13	− 0·55	− 0·40	+ 0·04	− 0·02
July	4·97	− 2·63	− 3·56	+ 1·58	+ 1·65	− 0·63	− 0·62	− 0·10	+ 0·16
August	3·69	− 2·56	− 2·39	+ 1·76	+ 1·21	− 0·90	− 0·67	+ 0·14	+ 0·17
September	3·30	− 2·59	− 1·65	+ 1·57	+ 1·40	− 0·99	− 0·37	+ 0·25	+ 0·11
October	2·64	− 3·12	− 0·74	+ 0·92	+ 1·31	− 0·53	− 0·60	+ 0·39	+ 0·11
November	3·54	− 2·46	+ 0·05	+ 0·19	+ 1·40	− 0·44	− 0·06	+ 0·37	+ 0·32
December	2·17	− 1·88	− 0·24	+ 0·28	+ 0·78	− 0·39	− 0·13	+ 0·14	+ 0·07
For the Year	2·63	− 2·62	− 1·69	+ 1·20	+ 1·56	− 0·63	− 0·42	+ 0·23	+ 0·12
	HORIZONTAL FORCE.								
January	50·7	+ 14·2	+ 6·9	− 21·4	+ 12·4	+ 6·4	− 11·7	+ 0·7	+ 8·3
February	72·9	+ 22·5	+ 1·0	− 22·7	− 0·6	+ 3·5	− 21·8	− 4·4	+ 10·6
March	147·8	+ 66·9	− 12·2	− 31·9	+ 8·6	+ 16·5	− 25·3	− 2·6	+ 9·1
April	207·1	+ 99·3	− 66·0	− 38·4	+ 32·9	+ 5·8	− 20·1	+ 8·0	+ 9·4
May	152·0	+ 68·6	− 78·0	− 31·9	+ 28·0	− 5·9	− 5·0	+ 9·9	+ 3·0
June	189·0	+ 84·0	− 106·9	− 30·1	+ 33·9	− 9·4	− 8·1	+ 9·2	+ 5·3
July	174·4	+ 86·8	− 87·5	− 32·1	+ 28·1	− 1·0	− 10·2	+ 0·8	+ 4·3
August	136·8	+ 71·1	− 55·8	− 21·1	+ 26·1	− 3·3	− 14·8	+ 0·7	+ 7·4
September	148·4	+ 71·3	− 48·7	− 18·8	+ 29·1	− 7·6	− 18·2	+ 9·0	+ 7·7
October	136·9	+ 62·5	− 15·4	− 30·3	+ 22·9	+ 3·5	− 23·6	+ 8·0	+ 10·0
November	68·6	+ 33·0	+ 7·6	− 32·7	+ 2·6	+ 6·3	− 2·4	+ 0·4	+ 2·2
December	36·8	+ 11·0	+ 8·7	− 19·9	− 0·9	+ 7·1	− 7·9	+ 0·9	− 0·1
For the Year	119·6	+ 57·6	− 37·2	− 27·6	+ 18·6	+ 1·8	− 14·1	+ 3·4	+ 6·4
	VERTICAL FORCE.								
January	7·2	− 0·2	− 7·8	− 2·3	− 0·9	+ 0·2	+ 0·1	− 0·9	+ 1·0
February	17·6	− 0·3	− 20·2	− 12·8	− 0·2	+ 2·1	+ 2·3	− 2·7	− 0·6
March	25·8	+ 0·3	− 21·1	− 18·2	− 2·9	+ 5·4	+ 2·1	− 3·8	+ 0·7
April	33·3	+ 5·9	− 17·3	− 17·6	− 4·8	+ 7·1	− 0·5	− 0·7	+ 1·9
May	45·4	+ 16·6	− 18·0	− 21·3	0·0	+ 4·4	− 1·1	+ 0·3	+ 1·7
June	43·9	+ 11·0	− 13·4	− 25·2	− 5·9	+ 4·0	− 0·9	− 1·1	− 0·1
July	32·3	+ 6·0	− 15·9	− 18·3	− 2·6	+ 7·4	+ 0·1	− 0·1	− 0·5
August	29·1	+ 4·4	− 10·5	− 14·1	− 1·9	+ 7·0	− 0·4	− 2·2	+ 0·2
September	22·1	+ 0·8	− 6·2	− 10·5	− 2·3	+ 6·7	− 2·2	− 2·8	+ 1·9
October	20·4	− 4·4	− 19·6	− 11·0	− 2·0	+ 5·5	− 0·5	− 2·7	+ 1·6
November	21·2	− 5·8	− 20·8	− 7·3	0·0	+ 2·0	− 1·6	− 2·2	+ 1·1
December	15·9	− 6·5	− 13·4	− 5·3	+ 0·2	+ 1·4	− 2·1	− 1·6	+ 1·9
For the Year	23·0	+ 2·3	− 15·3	− 13·7	− 1·9	+ 4·4	− 0·4	− 1·7	+ 0·9

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

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

(in which t and t' are the times from Greenwich mean midnight and apparent midnight respectively, converted into arc at the rate of 15° to each hour, and V_t, $V_{t'}$ the mean value of the magnetic element at the time t or t' for each month and for the year, as given in Tables II., V., IX., and XII., the values for Horizontal Force and Vertical Force being corrected for temperature). The values of the co-efficients for Declination are given in minutes of arc: the units for Horizontal Force and Vertical Force are ·00001 of the whole Horizontal and Vertical Forces respectively.

Month, 1895.	m	c_1	α	α'	c_2	β	β'	c_3	γ	γ'	c_4	δ	δ'
						DECLINATION WEST.							
	′	′	° ′	° ′	′	° ′	° ′	′	° ′	° ′	′	° ′	° ′
January	2·92	2·04	265. 35	267. 58	1·03	22. 10	26. 56	0·38	320. 39	327. 48	0·43	81. 13	90. 45
February	3·34	3·14	253. 32	257. 1	1·34	11. 44	18. 42	0·66	223. 47	234. 14	0·35	44. 14	58. 10
March	2·77	3·20	246. 34	248. 44	2·40	28. 47	33. 7	1·14	214. 37	221. 7	0·42	56. 36	65. 16
April	4·86	3·52	228. 45	228. 47	3·30	38. 51	38. 55	1·16	233. 1	233. 7	0·34	67. 41	67. 49
May	5·22	4·20	224. 2	223. 10	2·78	46. 54	45. 10	0·89	247. 47	245. 11	0·20	129. 23	125. 55
June	6·15	4·84	213. 41	213. 46	3·02	45. 14	45. 24	0·68	234. 12	234. 27	0·04	120. 1	120. 21
July	4·97	4·42	216. 27	217. 49	2·28	43. 41	46. 25	0·88	225. 14	229. 20	0·19	327. 52	333. 20
August	3·69	3·50	227. 0	227. 57	2·14	55. 29	57. 23	1·12	233. 24	236. 15	0·22	39. 40	43. 28
September	3·30	3·07	237. 31	236. 16	2·11	48. 22	45. 52	1·06	249. 31	245. 46	0·27	66. 13	61. 13
October	2·64	3·21	256. 38	253. 8	1·60	35. 16	28. 16	0·80	221. 26	210. 56	0·40	74. 23	60. 23
November	3·54	2·46	271. 5	267. 25	1·42	7. 53	0. 33	0·45	261. 47	250. 47	0·49	48. 46	34. 6
December	2·17	1·90	262. 42	261. 41	0·83	19. 33	17. 31	0·41	251. 45	248. 42	0·16	62. 54	58. 50
For the Year	2·63	3·12	237. 17	237. 17	1·97	37. 32	37. 32	0·75	236. 20	236. 20	0·26	61. 35	61. 35
						HORIZONTAL FORCE.							
			° ′	° ′		° ′	° ′		° ′	° ′		° ′	° ′
January	50·7	15·8	64. 1	66. 24	24·8	300. 8	304. 54	13·3	151. 10	158. 19	8·3	4. 53	14. 25
February	72·9	22·5	87. 32	91. 1	22·7	268. 25	275. 23	22·1	170. 50	181. 17	11·5	337. 35	351. 31
March	147·8	68·0	100. 21	102. 31	33·1	285. 2	289. 22	30·2	146. 50	153. 20	9·5	344. 8	352. 48
April	207·1	119·3	123. 36	123. 38	50·5	310. 35	310. 39	20·9	163. 57	164. 3	12·4	40. 6	40. 14
May	152·0	103·9	138. 39	137. 47	42·5	311. 21	309. 37	7·7	229. 23	226. 47	10·3	73. 19	69. 51
June	189·0	136·0	141. 51	141. 56	45·4	318. 22	318. 32	12·4	229. 7	229. 22	10·6	59. 46	60. 6
July	174·4	123·2	135. 14	136. 36	42·7	311. 13	313. 57	10·3	185. 32	189. 38	4·4	10. 53	16. 21
August	136·8	90·3	128. 7	129. 4	33·6	321. 9	323. 3	15·2	192. 36	195. 27	7·4	5. 49	9. 37
September	148·4	86·3	124. 20	123. 5	34·6	327. 10	324. 40	19·7	202. 43	198. 58	11·9	49. 29	44. 29
October	136·9	64·4	103. 49	100. 19	38·0	307. 5	300. 5	23·9	171. 38	161. 8	12·9	38. 43	24. 43
November	68·6	33·9	77. 5	73. 25	32·8	274. 32	267. 12	6·7	110. 47	99. 47	2·3	9. 32	354. 52
December	36·8	14·0	51. 42	50. 41	19·9	267. 16	265. 14	10·6	138. 10	135. 7	0·9	94. 54	90. 50
For the Year	119·6	68·6	122. 51	122. 51	33·3	303. 59	303. 59	14·2	172. 36	172. 36	7·3	27. 40	27. 40
						VERTICAL FORCE.							
			° ′	° ′		° ′	° ′		° ′	° ′		° ′	° ′
January	7·2	7·8	181. 28	183. 51	2·5	248. 40	253. 26	0·2	48. 11	55. 20	1·4	317. 44	327. 16
February	17·6	20·2	180. 57	184. 26	12·8	269. 20	276. 18	3·1	42. 45	53. 12	2·8	256. 30	270. 26
March	25·8	21·1	179. 18	181. 28	18·4	260. 48	265. 8	5·8	69. 0	75. 30	3·8	280. 57	289. 37
April	33·3	18·3	160. 58	161. 0	18·2	254. 46	254. 50	7·1	94. 23	94. 29	2·0	340. 26	340. 34
May	45·4	24·4	137. 23	136. 31	21·3	270. 5	268. 21	4·5	104. 13	101. 37	1·7	9. 59	6. 31
June	43·9	17·3	140. 45	140. 50	25·9	256. 55	257. 5	4·1	102. 45	103. 0	1·1	262. 33	262. 53
July	32·3	17·0	159. 24	160. 46	18·4	262. 1	264. 45	7·4	89. 5	93. 11	0·5	193. 49	199. 17
August	29·1	11·4	157. 26	158. 23	14·2	262. 23	264. 17	7·0	93. 13	96. 4	2·2	275. 36	279. 24
September	22·1	6·3	172. 11	170. 56	10·7	257. 26	254. 56	7·0	108. 1	104. 16	3·3	304. 17	299. 17
October	20·4	20·1	192. 45	189. 15	11·1	259. 53	252. 53	5·5	94. 54	84. 24	3·1	300. 50	286. 50
November	21·2	21·6	195. 30	191. 50	7·3	270. 12	262. 52	2·6	128. 46	117. 46	2·5	296. 8	281. 28
December	15·9	14·9	205. 53	204. 52	5·3	272. 10	270. 8	2·5	146. 53	143. 50	2·5	319. 49	315. 45
For the Year	23·0	15·5	171. 28	171. 28	13·8	261. 59	261. 59	4·4	95. 2	95. 2	1·9	297. 22	297. 22

TABLE XVII.—SEPARATE RESULTS of OBSERVATIONS of MAGNETIC DIP made in the Year 1895.

Greenwich Civil Time, 1895.	Needle.	Magnetic Dip.	Observer.
d h		° ′ ″	
Jan. 3. 14	C 1	67. 14. 41	C
4. 15	D 1	67. 16. 53	C
8. 14	D 2	67. 18. 4	C
10. 14	C 2	67. 15. 34	C
13. 13	B 1	67. 15. 41	C
15. 14	B 2	67. 16. 16	C
18. 14	B 2	67. 15. 12	N
21. 14	B 1	67. 15. 34	N
23. 15	C 2	67. 15. 22	N
24. 16	D 2	67. 17. 21	N
28. 15	D 1	67. 15. 23	N
31. 15	C 1	67. 13. 9	N
Feb. 1. 15	C 2	67. 15. 34	N
4. 15	B 2	67. 14. 33	N
7. 15	B 1	67. 16. 19	N
8. 15	C 1	67. 14. 14	N
12. 15	D 2	67. 16. 27	N
13. 15	D 1	67. 17. 11	N
16. 12	D 1	67. 16. 0	C
19. 14	D 2	67. 16. 7	C
21. 14	C 1	67. 14. 37	N
22. 14	B 1	67. 15. 24	C
26. 15	B 2	67. 14. 1	C
27. 14	C 2	67. 13. 44	C
Mar. 5. 15	B 1	67. 15. 34	C
5. 16	B 2	67. 15. 9	C
7. 15	C 2	67. 15. 7	N
8. 15	D 1	67. 16. 13	N
12. 15	D 2	67. 16. 53	N
13. 15	C 1	67. 14. 51	N
18. 16	C 1	67. 15. 22	N
20. 15	D 2	67. 16. 47	N
22. 16	D 1	67. 15. 24	N
26. 16	C 2	67. 15. 24	N
27. 16	B 2	67. 14. 30	N
30. 13	B 1	67. 12. 36	N
Apr. 6. 11	C 1	67. 15. 18	N
6. 12	D 1	67. 16. 21	N
8. 16	D 2	67. 14. 39	N
9. 15	C 2	67. 13. 6	N
10. 16	B 1	67. 13. 12	N
16. 16	B 2	67. 11. 29	N
20. 11	B 2	67. 13. 0	C
24. 15	B 1	67. 13. 23	C
26. 14	C 2	67. 12. 10	C
29. 15	D 2	67. 12. 21	C
30. 13	D 1	67. 12. 43	C
30. 15	C 1	67. 10. 8	C

Greenwich Civil Time, 1895.	Needle.	Magnetic Dip.	Observer.
d h		° ′ ″	
May 6. 15	C 2	67. 14. 19	C
7. 13	B 2	67. 13. 59	C
8. 16	B 1	67. 13. 34	C
9. 15	C 1	67. 10. 55	C
10. 15	C 1	67. 10. 54	C
13. 15	D 2	67. 14. 18	C
14. 16	D 1	67. 11. 45	C
15. 16	C 1	67. 11. 27	N
21. 15	D 1	67. 11. 59	N
22. 16	D 2	67. 12. 30	N
27. 16	B 1	67. 8. 4	N
28. 16	B 2	67. 9. 2	N
31. 16	C 2	67. 10. 17	N
June 4. 16	B 1	67. 10. 50	N
6. 15	B 2	67. 8. 6	N
7. 15	C 2	67. 9. 57	N
11. 15	D 1	67. 12. 14	N
12. 16	D 2	67. 10. 19	N
15. 12	C 1	67. 7. 4	N
20. 16	C 1	67. 7. 10	N
21. 15	D 2	67. 8. 43	C
25. 12	D 1	67. 9. 41	C
25. 13	C 2	67. 10. 25	C
26. 15	B 2	67. 8. 18	C
28. 16	B 1	67. 8. 25	C
July 3. 15	C 1	67. 7. 36	C
5. 14	D 1	67. 9. 20	C
8. 15	D 2	67. 7. 54	C
10. 15	C 2	67. 8. 5	C
12. 15	B 1	67. 6. 6	C
15. 16	B 2	67. 9. 24	C
18. 16	B 2	67. 9. 45	N
19. 14	B 1	67. 6. 29	C
22. 14	C 2	67. 9. 18	C
24. 15	D 2	67. 9. 6	C
26. 16	D 1	67. 10. 18	N
30. 15	C 1	67. 9. 9	C
Aug. 1. 16	C 2	67. 10. 6	N
3. 12	B 2	67. 9. 55	N
6. 16	B 1	67. 6. 47	N
12. 15	C 1	67. 11. 4	C
12. 16	D 2	67. 12. 30	C
13. 15	D 2	67. 12. 31	C
15. 14	D 1	67. 10. 37	C
17. 12	D 1	67. 12. 28	N
19. 14	D 2	67. 12. 28	N
20. 12	C 1	67. 10. 7	N
23. 16	B 1	67. 9. 36	N
27. 15	B 2	67. 10. 58	N
30. 16	C 2	67. 9. 9	C

Greenwich Civil Time, 1895.	Needle.	Magnetic Dip.	Observer.
d h		° ′ ″	
Sept. 3. 16	B 1	67. 11. 39	C
4. 16	B 2	67. 12. 29	N
6. 15	C 2	67. 10. 17	C
10. 15	D 1	67. 9. 18	C
12. 16	D 2	67. 13. 28	N
16. 16	C 1	67. 14. 16	N
18. 13	C 1	67. 13. 20	C
18. 16	D 2	67. 11. 36	N
19. 15	D 2	67. 13. 52	N
20. 15	D 1	67. 11. 52	C
24. 16	C 2	67. 12. 37	N
26. 16	B 1	67. 10. 41	N
27. 15	B 2	67. 12. 13	C
Oct. 4. 15	C 1	67. 11. 17	C
4. 16	D 1	67. 14. 55	C
8. 15	D 2	67. 12. 45	C
10. 16	C 2	67. 10. 33	N
14. 15	B 1	67. 12. 34	C
15. 15	B 2	67. 12. 13	C
16. 12	B 2	67. 10. 29	N
21. 15	B 1	67. 11. 0	N
23. 15	C 2	67. 11. 13	N
24. 16	D 2	67. 14. 32	N
25. 13	D 1	67. 12. 20	N
25. 15	C 2	67. 11. 17	N
28. 16	C 1	67. 13. 13	N
Nov. 1. 16	C 2	67. 10. 50	N
5. 16	B 2	67. 8. 48	N
7. 15	B 1	67. 9. 14	N
11. 16	C 1	67. 11. 46	N
13. 15	D 2	67. 12. 49	N
14. 13	D 1	67. 12. 59	N
20. 13	D 1	67. 11. 58	C
21. 13	D 2	67. 13. 35	C
25. 12	C 1	67. 12. 25	C
26. 13	B 1	67. 12. 54	C
27. 14	B 2	67. 10. 38	C
30. 12	C 2	67. 12. 28	C
Dec. 2. 15	B 1	67. 9. 59	C
5. 15	C 2	67. 10. 30	N
6. 15	B 2	67. 10. 33	C
9. 14	D 1	67. 10. 42	C
11. 13	D 2	67. 12. 12	N
13. 15	C 1	67. 14. 34	N
16. 16	C 1	67. 11. 20	N
19. 14	D 2	67. 11. 34	N
19. 15	C 1	67. 10. 57	N
21. 12	D 1	67. 10. 21	N
24. 12	C 2	67. 13. 11	N
27. 15	B 2	67. 8. 36	N
27. 15	B 1	67. 7. 23	N

The needles B 1 and B 2 are 9 inches in length; C 1 and C 2, 6 inches; and D 1 and D 2, 3 inches.
The initials N and C are those of Mr. Nash and Mr. Claxton.

TABLE XVIII.—MONTHLY and YEARLY MEANS of MAGNETIC DIP in the Year 1895.

Monthly Means of Magnetic Dip.

Month, 1895.	B 1, 9-inch Needle.	Number of Observations.	B 2, 9-inch Needle.	Number of Observations.	C 1, 6-inch Needle.	Number of Observations.
	° ′ ″		° ′ ″		° ′ ″	
January	67. 15. 37	2	67. 15. 44	2	67. 13. 55	2
February	67. 15. 52	2	67. 14. 17	2	67. 14. 25	2
March	67. 14. 5	2	67. 14. 49	2	67. 15. 6	2
April	67. 13. 17	2	67. 12. 14	2	67. 12. 43	2
May	67. 10. 49	2	67. 11. 30	2	67. 11. 5	3
June	67. 9. 37	2	67. 8. 12	2	67. 7. 7	2
July	67. 6. 17	2	67. 9. 35	2	67. 8. 22	2
August	67. 8. 12	2	67. 10. 27	2	67. 10. 36	2
September	67. 11. 10	2	67. 12. 21	2	67. 13. 48	2
October	67. 11. 47	2	67. 11. 21	2	67. 12. 15	2
November	67. 11. 4	2	67. 9. 43	2	67. 12. 6	2
December	67. 8. 41	2	67. 9. 34	2	67. 12. 17	3
Means	67. 11. 22	Sum 24	67. 11. 39	Sum 24	67. 11. 57	Sum 26

Month, 1895.	C 2, 6-inch Needle.	Number of Observations.	D 1, 3-inch Needle.	Number of Observations.	D 2, 3-inch Needle.	Number of Observations.
	° ′ ″		° ′ ″		° ′ ″	
January	67. 15. 28	2	67. 16. 8	2	67. 17. 43	2
February	67. 14. 39	2	67. 16. 36	2	67. 16. 17	2
March	67. 15. 16	2	67. 15. 49	2	67. 16. 50	2
April	67. 12. 38	2	67. 14. 32	2	67. 13. 30	2
May	67. 12. 18	2	67. 11. 52	2	67. 13. 24	2
June	67. 10. 11	2	67. 10. 58	2	67. 9. 31	2
July	67. 8. 41	2	67. 9. 49	2	67. 8. 30	2
August	67. 9. 37	2	67. 11. 32	2	67. 12. 30	3
September	67. 11. 27	2	67. 10. 35	2	67. 12. 59	3
October	67. 11. 1	3	67. 13. 37	2	67. 13. 38	2
November	67. 11. 39	2	67. 12. 28	2	67. 13. 12	2
December	67. 11. 51	2	67. 10. 32	2	67. 11. 53	2
Means	67. 12. 1	Sum 25	67. 12. 52	Sum 24	67. 13. 17	Sum 26

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.

COLLECTED YEARLY MEANS of MAGNETIC DIP for each of the NEEDLES, and GENERAL MEAN for the Year 1895.

Lengths of the several Sets of Needles.	Needles.	Number of Observations with each Needle.	Mean Yearly Dip from Observations with each Needle.	Mean Yearly Dip from each Set of Needles.	Mean Yearly Dip from all the Sets of Needles.
			° ′ ″	° ′ ″	° ′ ″
9-inch Needles	B 1	24	67. 11. 22	67. 11. 30	
	B 2	24	67. 11. 39		
6-inch Needles	C 1	26	67. 11. 57	67. 11. 59	67. 12. 11
	C 2	25	67. 12. 1		
3-inch Needles	D 1	24	67. 12. 52	67. 13. 5	
	D 2	26	67. 13. 17		

TABLE XIX.—DETERMINATIONS of the ABSOLUTE VALUE of HORIZONTAL MAGNETIC FORCE in the Year 1895.

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

Greenwich Civil Time, 1895.		Distances of Centres of Magnets.	Temperature Fahrenheit.	Observed Deflexion.	Mean of the Times of Vibration of Deflecting Magnet.	Number of Vibrations.	Temperature Fahrenheit.	Observer.
	d h	ft.	°	° ′ ″	s		°	
January	17. 14	1·0	44·9	9. 56. 55	5·768	100	44·1	C
		1·3		4. 31. 37	5·762	100	44·4	
February	14. 15	1·0	34·0	10. 0. 9	5·759	100	33·5	N
		1·3		4. 32. 32	5·765	100	33·5	
March	15. 13	1·0	45·2	9. 58. 48	5·777	100	45·7	C
		1·3		4. 32. 12	5·778	100	46·1	
April	23. 16	1·0	61·4	9. 55. 31	5·767	100	61·2	N
		1·3		4. 30. 24	5·771	100	61·9	
May	17. 15	1·0	57·8	9. 54. 40	5·778	100	57·0	C
		1·3		4. 30. 2	5·770	100	58·1	
June	18. 16	1·0	61·5	9. 53. 25	5·768	100	62·7	N
		1·3		4. 29. 35	5·767	100	63·2	
July	18. 14	1·0	68·1	9. 53. 10	5·780	100	68·6	C
		1·3		4. 29. 44	5·781	100	68·9	
August	20. 14	1·0	70·2	9. 53. 37	5·780	100	70·2	N
		1·3		4. 29. 29	5·784	100	72·0	
September	17. 15	1·0	62·7	9. 54. 46	5·780	100	63·4	N
		1·3		4. 30. 18	5·780	100	63·9	
October	16. 14	1·0	55·9	9. 55. 33	5·773	100	55·9	C
		1·3		4. 30. 12	5·779	100	56·3	
November	15. 14	1·0	53·2	9. 55. 47	5·779	100	52·4	N
		1·3		4. 30. 32	5·775	100	52·5	
December	17. 14	1·0	48·9	9. 55. 52	5·773	100	47·9	N
		1·3		4. 30. 25	5·773	100	48·8	

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 N and C are those of Mr. Nash and Mr. Claxton.
In the subsequent calculations every observation is reduced to the temperature 35° Fahrenheit.

Computation of the Values of Horizontal Force in Absolute Measure.

Greenwich Civil Time, 1895.		In English Measure.									In Metric Measure.	
											Value of Horizontal Force.	
		Apparent Value of A_1.	Apparent Value of A_2.	Apparent Value of P.	Mean Value of P.	Log $\frac{m}{X}$.	Corrected Time of Vibration of Deflecting Magnet.	Log m X.	Value of m.	Value of Horizontal Force X.	As observed.	Reduced to Mean of Month.
	d h						s					
Jan.	17. 14	0·08651	0·08683	−0·00885		8·93945	5·7724	0·13809	0·3458	3·9748	1·8327	1·8342
Feb.	14. 15	0·08682	0·08696	−0·00400		8·94056	5·7732	0·13791	0·3461	3·9689	1·8300	1·8293
Mar.	15. 13	0·08679	0·08702	−0·00649		8·94061	5·7834	0·13646	0·3456	3·9621	1·8269	1·8299
Apr.	23. 16	0·08656	0·08668	−0·00355		8·93919	5·7695	0·13862	0·3459	3·9785	1·8344	1·8321
May	17. 15	0·08638	0·08651	−0·00378		8·93832	5·7763	0·13760	0·3451	3·9778	1·8341	1·8355
June	18. 16	0·08626	0·08642	−0·00468	−0·00457	8·93779	5·7686	0·13878	0·3454	3·9857	1·8377	1·8371
July	18. 14	0·08632	0·08657	−0·00711		8·93832	5·7794	0·13720	0·3450	3·9759	1·8332	1·8338
Aug.	20. 14	0·08642	0·08652	−0·00305		8·93843	5·7799	0·13712	0·3450	3·9750	1·8328	1·8307
Sept.	17. 15	0·08647	0·98667	−0·00575		8·93893	5·7814	0·13687	0·3451	3·9716	1·8313	1·8304
Oct.	16. 14	0·08648	0·08653	−0·00164		8·93862	5·7807	0·13691	0·3450	3·9733	1·8320	1·8301
Nov.	15. 14	0·08647	0·08660	−0·00372		8·93878	5·7832	0·13651	0·3449	3·9707	1·8308	1·8322
Dec.	17. 14	0·08642	0·08650	−0·00226		8·93840	5·7811	0·13682	0·3448	3·9738	1·8323	1·8317
Means	...	...	...	...	...	...	...	...	...	3·9740	1·8323	1·8323

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.

TABLE XIX.—*continued*—DETERMINATIONS of the ABSOLUTE VALUE of HORIZONTAL MAGNETIC FORCE in the Year 1895.

Abstract of the Observations of Deflexion of a Magnet for Absolute Measure of Horizontal Force made with the Elliott Instrument.

Greenwich Civil Time, 1895.	Distances of Centres of Magnets.	Temperature Centigrade.	Observed Deflexion.	Mean of the Times of Vibration of Deflecting Magnet.	Number of Vibrations.	Temperature Centigrade.	Observer.
d h	cms.	°	° ′ ″	s		°	
January 16. 15	30 40	5·9	19. 55. 7 8. 14. 52	4·225 4·233	100 100	5·2 5·6	N
February 15. 12	30 40	1·1	19. 57. 27 8. 14. 57	4·230 4·225	100 100	0·0 0·8	C
March 19. 15	30 40	9·6	19. 51. 25 8. 12. 45	4·239 4·235	100 100	9·6 9·6	N
April 18. 14	30 40	15·1	19. 47. 25 8. 10. 45	4·242 4·240	100 100	13·4 14·6	C
May 16. 16	30 40	16·7	19. 42. 42 8. 9. 42	4·240 4·240	100 100	16·4 16·7	N
June 14. 13	30 40	16·2	19. 37. 28 8. 8. 42	4·235 4·237	100 100	15·6 16·0	C
July 17. 15	30 40	21·1	19. 39. ·0 8. 8. 10	4·243 4·240	100 100	19·4 21·6	N
August 14. 13	30 40	17·6	19. 43. 32 8. 10. 5	4·245 4·243	100 100	17·2 17·6	C
September 13. 14	30 40	17·2	19. 35. 50 8. 7. 37	4·252 4·241	100 100	16·7 18·0	C
October 18. 16	30 40	11·6	19. 46. 25 8. 12. 7	4·237 4·241	100 100	11·3 11·1	N
November 18. 14	30 40	12·5	19. 50. 25 8. 13. 32	4·237 4·239	100 100	12·0 12·2	C
December 18. 14	30 40	8·9	19. 44. 35 8. 10. 30	4·233 4·237	100 100	8·4 9·0	N

The deflecting magnet is placed on the east side of the suspended magnet, with its marked pole alternately east and west, and on the west side with its marked pole also alternately east and west: the deflexion given in the table above is the mean of the four deflexions observed in these positions of the magnets.
The initials N and C are those of Mr. Nash and Mr. Claxton.
In the subsequent calculations every observation is reduced to the temperature 0° Centigrade.

Computation of the Values of Horizontal Force in Absolute Measure.

Greenwich Civil Time, 1895.	In C.G.S. Measure.									In Metric Measure.	
	Apparent Value of A_1.	Apparent Value of A_2.	Apparent Value of P.	Mean Value of P.	Log. $\frac{m}{X}$	Corrected Time of Vibration of Deflecting Magnet.	Log. m X.	Value of m.	Value of Horizontal Force X.	Value of Horizontal Force. As observed.	Value of Horizontal Force. Reduced to Mean of Month.
d h						s					
Jan. 16. 15	4610·1	4601·3	+ 3·93		3·66173	4·2284	2·18948	842·6	0·18360	1·8360	1·8342
Feb. 15. 12	4607·8	4591·1	+ 7·44		3·66114	4·2314	2·18884	841·4	0·18359	1·8359	1·8378
Mar. 19. 15	4605·1	4590·5	+ 6·54		3·66099	4·2317	2·18886	841·2	0·18362	1·8362	1·8350
Apr. 18. 14	4603·4	4585·0	+ 8·24		3·66065	4·2322	2·18882	840·9	0·18369	1·8369	1·8377
May 16. 16	4589·8	4579·2	+ 4·74		3·65973	4·2286	2·18957	840·7	0·18404	1·8404	1·8406
June 14. 13	4569·1	4568·7	+ 0·19	+ 4·13	3·65825	4·2255	2·19022	839·9	0·18449	1·8449	1·8457
July 17. 15	4586·7	4575·8	+ 4·88		3·65942	4·2273	2·18990	840·7	0·18418	1·8418	1·8431
Aug. 14. 13	4595·0	4584·9	+ 4·55		3·66025	4·2331	2·18866	840·3	0·18374	1·8374	1·8405
Sept. 13. 14	4565·4	4561·1	+ 1·94		3·65772	4·2358	2·18811	837·4	0·18416	1·8416	1·8449
Oct. 18. 16	4591·5	4589·4	+ 0·90		3·66029	4·2350	2·18822	839·9	0·18364	1·8364	1·8358
Nov. 18. 14	4608·4	4604·7	+ 1·66		3·66181	4·2329	2·18864	841·8	0·18341	1·8341	1·8350
Dec. 18. 14	4578·0	4567·9	+ 4·55		3·65864	4·2330	2·18858	838·7	0·18406	1·8406	1·8384
Means ...	...	...	...	...	...	...	...	...	0·18385	1·8385	1·8391

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

Each result is the mean of the corresponding hourly ordinates from the photographic register, on five quiet days in each month, selected for comparison with results at other British Observatories. The days included are January 5, 13, 25, 26, 27, February 4, 13, 22, 25, 26, March 7, 11, 12, 24, 27, April 2, 8, 21, 22, 29, May 4, 12, 16, 19, 23, June 8, 13, 14, 15, 26, July 3, 7, 19, 24, 25, August 2, 3, 7, 22, 27, September 2, 7, 8, 21, 28, October 3, 10, 18, 21, 22, November 7, 14, 17, 19, 21, December 4, 5, 6, 16, 29.

The results for Declination are given in minutes of arc : those for Horizontal Force and Vertical Force are given both in terms of the whole Horizontal or Vertical Force and in terms of the Millimètre-Milligramme-Second (Metric) Unit. The letter *f* indicates values in terms of the whole Horizontal or Vertical Force, and the letter *m* values in terms of the Metric Unit, the unit for the former values being ·00001 of the whole Horizontal or Vertical Force, and for the latter ·00001 of the Metric Unit, or ·000001 of the Centimètre-Gramme-Second (C.G.S.) Unit. The values of the whole Horizontal and Vertical Forces expressed in terms of the Metric Unit are 1·8323 and 4·3695 respectively for the year.

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

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

1895.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	0′·0	0′·0	2′·7	3′·9	3′·6	5′·9	4′·2	3′·5	3′·3	1′·9	0′·5	0′·3	2′·05
1^h	0·4	0·9	2·7	4·2	3·2	5·7	4·1	3·2	3·5	1·8	1·3	0·7	2·21
2	0·8	1·1	3·2	3·9	2·7	5·4	3·6	2·5	3·8	1·5	1·5	1·1	2·16
3	0·9	1·4	3·1	3·1	2·8	5·4	3·4	2·3	3·4	1·6	1·7	1·3	2·10
4	1·1	1·2	2·9	3·0	2·0	4·4	3·2	1·7	3·1	1·5	1·8	0·9	1·80
5	1·1	0·9	2·5	2·5	1·0	2·9	2·1	0·6	2·3	1·1	1·7	0·7	1·19
6	0·9	0·6	2·3	1·3	0·2	1·0	0·6	0·2	1·4	1·0	1·3	0·7	0·53
7	0·4	0·8	1·4	0·4	0·0	0·0	0·0	0·0	0·4	0·7	1·4	0·4	0·06
8	0·3	1·1	0·1	0·0	0·5	0·8	0·5	0·6	0·0	0·0	1·0	0·3	0·00
9	0·9	0·6	0·0	1·1	1·9	2·6	1·8	1·8	0·8	0·1	0·5	0·5	0·62
10	1·2	1·6	2·0	3·5	4·8	5·2	3·7	4·0	2·7	1·9	1·4	1·8	2·39
11	1·8	3·7	5·0	7·0	8·1	9·2	6·9	7·0	5·8	4·8	2·9	2·8	4·99
Noon	2·4	5·8	7·8	10·4	10·3	12·9	10·2	10·3	8·8	6·5	4·2	3·7	7·35
13^h	2·9	6·9	9·5	11·9	10·9	14·4	11·8	11·9	9·6	6·9	4·6	3·9	8·34
14	2·2	6·4	9·2	11·7	10·0	14·6	11·8	10·9	8·4	6·0	4·3	3·2	7·79
15	1·8	5·3	7·2	9·7	8·5	13·7	10·1	8·3	6·9	4·5	3·9	2·7	6·45
16	2·0	3·9	5·6	7·8	6·9	12·3	8·4	6·0	4·9	3·0	3·3	2·1	5·09
17	1·9	3·4	4·3	5·8	5·9	10·5	7·3	4·3	3·9	2·4	2·9	1·5	4·08
18	1·3	3·5	3·7	4·9	5·1	9·0	6·7	4·1	3·4	2·5	2·7	1·0	3·56
19	0·7	2·9	2·7	4·8	4·7	8·0	6·3	4·2	3·2	2·2	2·2	0·8	3·13
20	0·7	1·9	2·6	5·0	4·1	7·4	5·7	4·5	3·4	1·6	1·8	0·4	2·83
21	0·3	1·4	2·8	4·8	4·4	7·1	5·6	3·9	3·5	1·5	1·1	0·0	2·60
22	0·1	1·2	3·0	4·7	4·2	7·2	5·5	4·0	3·4	1·6	0·0	0·1	2·49
23	0·1	0·8	2·6	4·6	3·4	6·8	5·1	4·0	3·4	1·4	0·2	0·6	2·32
24	0·5	0·7	2·7	4·2	3·4	6·3	4·4	3·5	3·4	1·5	0·4	0·6	2·20
Means 0^h—23^h	1′·09	2′·39	3′·70	5′·00	4′·55	7′·18	5′·36	4′·32	3′·89	2′·42	2′·01	1′·31	3′·17
Means 1^h—24^h	1′·11	2′·42	3′·70	5′·01	4′·54	7′·20	5′·37	4′·32	3′·89	2′·40	2′·00	1′·32	3′·18

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.)

1895.

Hour, Greenwich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		For the Year.	
	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m
Midn.	38	70	100	183	153	280	262	480	194	355	235	431	213	390	206	377	162	297	168	308	40	73	19	35	142·7	261·3
1h	29	53	97	178	136	249	248	454	197	361	215	394	191	350	201	368	156	286	155	284	50	92	21	38	134·8	247·0
2	36	66	94	172	141	258	233	427	177	324	192	352	190	348	180	330	151	277	143	262	66	121	26	48	129·2	236·9
3	44	81	97	178	143	262	213	390	167	306	180	330	186	341	168	308	142	260	144	264	68	125	36	66	125·8	230·7
4	43	79	106	194	142	260	213	390	157	288	180	330	170	311	157	288	137	251	146	268	68	125	48	88	124·1	227·4
5	52	95	116	213	144	264	202	370	149	273	167	306	149	273	143	262	139	255	146	268	83	152	54	99	122·2	223·9
6	64	117	129	236	144	264	192	352	132	242	137	251	123	225	127	233	130	238	137	251	83	152	60	110	115·0	210·7
7	72	132	121	222	134	246	156	286	100	183	95	174	99	181	100	183	100	183	120	220	87	159	61	112	97·3	178·2
8	52	95	105	192	100	183	112	205	58	106	52	95	66	121	58	106	46	84	82	150	71	130	53	97	64·7	118·4
9	22	40	64	117	40	73	56	103	14	26	16	29	22	40	22	40	2	4	24	44	37	68	27	49	22·3	40·9
10	8	15	36	66	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	27	17	31	0·0	0·0
11	7	13	0	0	0	0	13	24	34	62	32	59	11	20	16	29	18	33	3	5	0	0	0	0	4·7	8·5
Noon	0	0	38	70	24	44	76	139	91	167	82	150	59	108	66	121	78	143	49	90	18	33	10	18	42·7	78·3
13h	20	37	92	169	72	132	149	273	147	269	124	227	113	207	135	247	135	247	93	170	43	79	23	42	89·0	163·0
14	40	73	124	227	106	194	202	370	165	302	197	361	187	343	188	344	160	293	128	235	64	117	17	31	125·0	228·9
15	38	70	136	249	130	238	236	432	195	357	234	429	235	431	200	366	162	297	132	242	78	143	30	55	144·0	263·9
16	35	64	129	236	155	284	262	480	213	390	258	473	242	443	196	359	169	310	146	268	92	169	37	68	154·7	283·4
17	34	62	137	251	151	277	266	487	242	443	278	509	266	487	192	352	179	328	160	293	107	196	35	64	164·1	300·5
18	43	79	164	300	164	300	296	542	280	513	296	542	288	528	216	396	195	357	164	300	117	214	53	97	183·2	335·4
19	39	71	182	333	182	333	306	561	284	520	300	550	292	535	243	445	206	377	167	306	115	211	54	99	191·0	349·8
20	31	57	189	346	198	363	318	583	260	476	305	559	281	515	251	460	206	377	170	311	107	196	51	93	190·8	349·4
21	36	66	179	328	185	339	308	564	231	423	305	559	275	504	237	434	203	372	168	308	101	185	45	82	182·9	335·1
22	46	84	172	315	184	337	308	564	221	405	278	509	279	511	226	414	209	383	166	304	89	163	44	81	178·7	327·3
23	51	93	169	310	202	370	316	579	238	436	258	473	274	502	222	407	201	368	173	317	76	139	43	79	178·7	327·5
24	43	79	159	291	198	363	305	559	202	370	248	454	270	495	214	392	199	365	195	357	81	148	47	86	173·6	318·0
Means 0^h-23^h	36·7	67·2	115·7	211·9	126·3	231·4	206·0	377·3	164·4	301·1	184·0	337·2	175·5	321·4	156·2	286·2	136·9	250·8	124·3	227·8	69·8	127·9	36·0	65·9	121·1	221·9
1^h-24^h	36·9	67·5	118·1	216·4	128·2	234·9	207·8	380·6	164·7	301·7	184·5	338·1	177·8	325·8	156·6	286·8	138·5	253·7	125·5	229·9	71·5	131·0	37·2	68·0	122·4	224·3

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.)

1895.

Hour, Greenwich Civil Time.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		For the Year.	
	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m	f	m
Midn.	15	66	26	114	29	127	39	170	49	214	51	223	29	127	23	100	15	66	20	87	14	61	1	4	24·1	105·1
1h	13	57	24	105	29	127	37	162	45	197	47	205	27	118	21	92	17	74	23	100	8	35	0	0	22·4	97·9
2	14	61	26	114	29	127	33	144	41	179	51	223	27	118	26	114	19	83	23	100	10	44	4	17	23·5	102·2
3	14	61	27	118	27	118	39	170	46	201	57	249	28	122	28	122	23	100	27	118	8	35	4	17	25·5	111·2
4	16	70	19	83	27	118	43	188	50	218	59	258	32	140	32	140	28	122	27	118	8	35	2	9	26·8	116·8
5	14	61	19	83	24	105	43	188	54	236	69	301	40	175	40	175	30	131	27	118	8	35	6	26	29·4	128·1
6	16	70	19	83	24	105	49	214	54	236	71	310	44	192	36	157	38	166	31	135	8	35	6	26	31·2	136·0
7	16	70	21	92	34	149	53	232	50	218	66	288	42	184	42	184	42	184	40	175	6	26	12	52	33·5	146·4
8	19	83	21	92	32	140	52	227	44	192	62	271	38	166	40	175	40	175	40	175	8	35	8	35	31·9	139·1
9	9	39	19	83	26	114	32	140	28	122	44	192	26	114	27	118	29	127	38	166	6	26	9	39	22·6	98·6
10	11	48	11	48	12	52	22	96	8	35	32	140	12	52	13	57	17	74	20	87	0	0	0	0	11·4	49·3
11	9	39	8	35	2	9	8	35	6	26	18	79	6	26	4	17	6	26	2	9	0	0	8	35	4·6	19·9
Noon	7	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	66	0·0	0·0
13h	11	48	2	9	6	26	4	17	6	26	7	31	6	26	6	26	8	35	6	26	8	35	21	92	5·8	25·0
14	13	57	7	31	19	83	28	122	28	122	25	109	28	122	16	70	21	92	15	66	20	87	31	135	19·1	83·2
15	6	26	11	48	25	109	44	192	44	192	37	162	40	175	34	149	29	127	27	118	24	105	30	131	27·4	119·7
16	6	26	17	74	39	170	50	218	52	227	43	188	46	201	44	192	31	135	33	144	20	87	31	135	32·5	141·7
17	10	44	21	92	45	197	58	253	62	271	55	240	51	223	39	170	33	144	27	118	24	105	31	135	36·2	157·9
18	9	39	17	74	40	175	58	253	64	280	61	267	57	249	37	162	27	118	25	109	22	96	30	131	35·4	154·6
19	11	48	12	52	40	175	56	245	66	288	61	267	51	223	33	144	20	87	25	109	22	96	24	105	33·3	145·2
20	9	39	10	44	40	175	52	227	62	271	57	249	47	205	31	135	24	105	21	92	16	70	20	87	30·6	133·5
21	7	31	10	44	38	166	52	227	52	227	53	232	39	170	31	135	22	96	17	74	16	70	14	61	27·5	119·6
22	5	22	10	44	34	149	48	210	49	214	49	214	41	179	29	127	22	96	15	66	14	61	10	44	25·3	110·7
23	0	0	7	31	25	109	41	179	47	205	47	205	41	179	31	135	20	87	11	48	14	61	3	13	22·1	96·2
24	2	9	12	52	17	74	33	144	43	188	41	179	37	162	23	100	20	87	1	4	5	22	2	9	17·9	77·7
Means 0^h-23^h	10·8	47·3	15·2	66·4	26·9	117·7	39·2	171·2	42·0	183·2	46·7	204·3	33·2	145·3	27·6	120·7	23·4	102·1	22·5	98·2	11·8	51·7	13·3	58·1	24·3	105·7
1^h-24^h	10·3	45·0	14·6	63·8	26·4	115·5	39·0	170·1	41·7	182·1	46·3	202·5	33·6	146·7	27·6	120·7	23·6	103·0	21·7	94·8	11·5	50·0	13·4	58·3	24·0	104·6

ROYAL OBSERVATORY, GREENWICH.

MAGNETIC DISTURBANCES

AND

EARTH CURRENTS.

1895.

MAGNETIC DISTURBANCES in DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE, recorded at the ROYAL OBSERVATORY, GREENWICH, in the Year 1895.

The following notes give a brief description of all magnetic movements (superposed on the ordinary diurnal movement) exceeding 3′ in Declination, 0·001 in Horizontal Force, or 0·0003 in Vertical Force, as taken from the photographic records of the respective Magnetometers. The movements in Horizontal and Vertical Force are expressed in parts of the whole Horizontal and Vertical Forces respectively. When any one of the three elements is not specifically mentioned it is to be understood that the movement, if any, was insignificant. Any failure or want of register is specially indicated.

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

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

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

1895.

January 1^d 19½^h to 21^h Wave in Dec. (− 14′), followed till 24^h by fluctuations (± 3′). 19½^h to 20½^h Decrease in H.F. (− ·003), followed by double wave, 22^h to 23½^h (+ ·0011 to − ·0024). 20^h to 24^h Shallow double wave in V.F. (+ ·0005 to − ·0005).

2^d 18^h to 23^h Small fluctuations in Dec. and H.F. with wave 21^h to 22^h in H.F. (+ ·002). Shallow wave in V.F.

3^d 17^h to 18^h Wave in Dec. (− 6′): in H.F. (+ ·0017), followed by small fluctuations till 23^h.

4^d 19½^h to 21^h Wave in Dec. (− 6′). 19^h to 20^h Wave in H.F. (− ·001), followed by small fluctuations in both curves till 24^h.

5^d 21½^h to 22½^h Wave in H.F. (+ ·0013): in Dec. small.

6^d 2½^h to 4^h Wave in Dec. (+ 6′): in H.F. (+ ·001): in V.F. small.

6^d 12^h to 24^h Small fluctuations in Dec. and H.F.: long wave in V.F. (+ ·0008).

7^d 14½^h to 16^h Wave in H.F. (− ·0014). 17^h to 19^h Wave in H.F. (− ·0022). 18^h to 19½^h Wave in Dec. (− 8′).

8^d 1^h to 2^h Wave in Dec. (+ 7′): in H.F. (+ ·0026): in V.F. (− ·0007).

9^d 13½^h to 15^h Wave in Dec. (− 6′): in H.F. (− ·0018). 17^h to 23^h Small fluctuations in Dec., H.F. and V.F., with sharp wave in Dec. 20^h to 21^h (− 8′).

10^d 20^h to 11^d 2^h Long wave in Dec. (− 8′): in H.F. (− ·0016).

11^d 17½^h to 19^h Wave in Dec. (− 7′): small fluctuations in H.F.

12^d 18^h to 20^h Wave in Dec. (− 9′): in H.F. (+ ·0016), followed by small fluctuations in Dec. till 23^h.

14^d 19^h to 21^h Small fluctuations in Dec. and H.F.

16^d 0^h to 5^h Small fluctuations in Dec. and H.F. 12^h to 22^h Fluctuations in Dec. (± 3′): in H.F. (± ·0006), with wave in H.F. 16^h to 17^h (− ·0018). 19½^h to 21½^h Wave in Dec. (− 11′): in H.F. 20½^h to 21½^h (+ ·0016).

17^d 12^h to 23^h Rapid fluctuations in Dec. (± 5′): in H.F. (± ·0014): in V.F. small. 17½^h to 18½^h Wave in Dec. (− 7′). 20^h to 22^h Wave in Dec. (− 12′).

18^d 0½^h to 2^h Wave in Dec. (+ 10′): in H.F. (+ ·002): decrease of V.F. (− ·0005).

18^d 20^h to 22^h Sharp wave in Dec. (− 27′): in H.F. (− ·002): in V.F. (+ ·0004), followed by fluctuations till 19^d 3^h in Dec. (± 5′): in H.F. and V.F. small.

19^d 3½^h to 5^h Wave in Dec. (+ 8′).

1895.

January 19d 17h to 20d 5h Rapid fluctuations in Dec. (± 3′) : in H.F. (± ·001) : in V.F. small ; with sharp wave in Dec. 19d 21h to 22h (− 20′), followed by a smaller wave (+ 8′). 21½h to 22½h Double wave in H.F. (+ ·002 to − ·0016). Wave in V.F. (+ ·0005).

20d 12h to 16h Small fluctuations in Dec. and H.F.

20d 20h to 22h Wave in Dec. (− 9′), followed by small fluctuations in Dec. and H.F. till 21d 8h.

21d 16h to 17h Wave in Dec. (− 4′) : in H.F. (− ·001). 19½h to 20½h Two successive waves in Dec. (− 5′) and (− 4′). 20h to 21h Wave in H.F. (+ ·0022).

22d 18h to 20h Wave in Dec. (− 8′) : in H.F. (− ·0014), followed by small fluctuations in Dec., H.F. and V.F. 22½h to 23½h Wave in H.F. (+ ·0022).

23d 18h to 24d 1h Small fluctuations in Dec. and H.F. 18h to 20h Wave in Dec. (− 6′), and again 23d 23½h to 24d 1h (− 5′).

24d 12h to 25d 1h Small fluctuations in Dec. and H.F.

30d 12h to 16h Wave in Dec. (− 6′).

February 1d 16h to 19h Small fluctuations in Dec. (± 3′) : in H.F. (± ·001). 19½h Decrease of Dec. (− 7′), followed by small fluctuations till 2d 3h. 1d 19h to 2d 0h Two successive waves in H.F. (− ·002) and (− ·0018). 1d 16h to 2d 3h Long irregular wave in V.F. (+ ·0008).

2d 14h to 18h Small fluctuations in Dec. and H.F. 18½h to 19½ Decrease of Dec. (− 14′) : of H.F. (− ·002), followed by small fluctuations till 3d 6h in Dec. and H.F. 2d 16h to 3d 2h Long wave in V.F. (+ ·001).

4d 21h to 24h Small fluctuations in H.F.

5d 12h to 24h Small fluctuations in Dec., H.F. and V.F.

6d 1h to 9h Loss of register.

6d 10h to 16h Fluctuations in Dec. (± 3′) : in H.F. (± ·001) : in V.F. (± ·0003). 16½h to 17½h Sharp wave in Dec. (− 20′) : in H.F. (− ·0034) : in V.F. small.

6d 18h to 7d 17h Loss of register.

7d 19h to 21h Wave in Dec. (− 12′) : in H.F. (+ ·002), followed till 24h by fluctuations in Dec. (± 3′) : in H.F. (± ·001) : in V.F. very small.

8d 12h to 9d 12h. See Plate I.

9d 12h to 10d 12h. See Plate I.

10d 19½h to 21h Two successive waves in Dec. (− 12′) and (− 9′) : double wave in H.F. (− ·0017 to + ·0021) : wave in V.F. (+ ·0004), followed by small fluctuations in Dec. and H.F. till 23h. 10d 23h to 11d 0½h Wave in Dec. (+ 6′) : in H.F. (+ ·0032) : in V.F. (− ·0006).

11d 18h to 20h Wave in Dec. (− 5′) : in H.F. (+ ·0012). 21½h to 23½h Wave in Dec. (− 5′) : in H.F. (+ ·001).

12d 2h to 4h Fluctuations in Dec. (± 2′) : small wave in H.F. (+ ·001). 21½h to 22½h Wave in Dec. (− 5′) : small fluctuations in H.F. and V.F.

13d 12h to 14d 12h Small fluctuations in Dec., H.F. and V.F., with waves in Dec. 13d 20h to 21h (− 5′), and 14d 0½h to 1½h (+ 6′) : in H.F. 13d 15h to 17½h (− ·0014), and 14d 0½h to 1½h (+ ·0012).

14d 12h to 15d 12h Fluctuations in Dec. (± 3′) : in H.F. (± ·001) : in V.F. small, with waves in H.F. 14d 17h to 18h (− ·002), and 15d 1½h to 2h (+ ·0018).

15d 12h to 16d 12h. See Plate I.

16d 12h to 17d 2h Rapid fluctuations in Dec. (± 3′) : in H.F. (± ·001), with wave in Dec. 16d 14½h to 16h (− 9′) : double wave 16d 23h to 17d 0h (− 6′ to + 5′) : wave 17d 1h to 2h (+ 7′) : 16d 20h to 21h serrated wave in H.F. (+ ·0019), and wave 16d 23h to 17d 0h (+ ·0032) : 16d 13h to 17d 0h long wave in V.F. (+ ·0019).

17d 4h to 6h Wave in Dec. (+ 8′) : in H.F. (+ ·0016) : in V.F. (− ·0004).

17d 12h to 14h Wave in Dec. (+ 6′). 17½h to 19h Wave in Dec. (− 5′). 20h to 21½h Double wave in Dec. (− 4′ to + 4′). 20h to 22h Irregular wave in H.F. (+ ·003), with superposed fluctuations in both elements. 21h to 22h Slight decrease of V.F. (− ·0004).

18d 3½h to 6½h Two successive waves in Dec. (+ 8′) and (+ 4′) : in H.F. (+ ·001) and (+ ·001). 13h to 15h Fluctuations in Dec. (± 2′) : in H.F. and V.F. small. 16h to 17h Wave in Dec. (− 4′) : in H.F. (− ·001). 20h to 21h Wave in Dec. (− 9′) : in H.F. (− ·001) : small fluctuations in V.F.

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February 19^d 17^h to 23^h Fluctuations in H.F. (± ·001). 18^h to 21^h Two successive waves in Dec. (− 8′) and (− 4′) : small fluctuations in V.F.

20^d 7½^h to 8½^h Small rapid fluctuations in Dec. and H.F. 14^h to 14½^h Decrease of Dec. (− 5′) and again 16^h to 16½^h (− 4′). 16½^h to 17^h Wave in H.F. (− ·001). 19^h to 20½^h Two successive waves in Dec. (− 4′) and (− 4′) : wave in H.F. (+ ·002) : slight decrease of V.F.

21^d 4½^h to 5½^h Slight increase of Dec. and H.F. 19½^h to 20½^h Wave in Dec. (− 7′) : in H.F. (+ ·002). 23½^h Decrease of Dec. (− 4′) : increase of H.F. (+ ·001).

23^d 23^h to 24^d 2^h Irregular wave in Dec. (− 12′) : small rapid fluctuations in H.F. : small fluctuations in V.F.

24^d 13^h to 17^h Active fluctuations in Dec. (± 5′) : in H.F. (± ·001), with waves 14^h to 14½^h, in Dec. (− 7′) : in H.F. (− ·002) : in V.F. (− ·0004) : and 15¼^h to 16^h in Dec. (+ 10′) : in H.F. (+ ·0027) : and increase of V.F. (+ ·0007) : followed at 17^h by a sudden decrease of Dec. (− 18′). 17^h to 17½^h Wave in H.F. (− ·003) ; with rapid fluctuations till 23^h (± ·0012). 16^h to 19^h Wave in V.F. (+ ·0016).

27^d 20^h to 22^h Wave in Dec. (− 5′), followed by fluctuations (± 2′) till 24^h. 20^h to 21½^h Small fluctuations in H.F., followed by sharp wave (+ ·0018), and small fluctuations till 24^h : small fluctuations in V.F.

28^d 3^h to 10^h Small fluctuations in Dec. (± 2′) : two successive waves in H.F. (+ ·0018) and (+ ·001), followed by small fluctuations. 12^h to 18^h Small fluctuations in Dec. and H.F.

March 1^d 9^h to 20^h Small fluctuations in Dec. and H.F. 20½^h to 21½^h Wave in Dec. (− 7′), followed till 23^h by double-crested wave (− 10′). 20½^h to 22½^h Two successive waves in H.F. (+ ·002) and (+ ·0012). 21^h to 23^h Shallow wave in V.F. (− ·0005).

2^d 5½^h to 7^h Wave in Dec. (+ 7′) : in H.F. (− ·001), followed till 19^h by small rapid fluctuations in both elements : very small movements in V.F.

3^d 1½^h to 2½^h Wave in Dec. (+ 4′) : in H.F. (+ ·001) : in V.F. small. 12^h to 16^h Small fluctuations in Dec. and H.F., with wave in H.F. 14½^h to 16^h (− ·0016). 19½^h to 21½^h Wave in Dec. (− 12′): in H.F. (− ·0024), followed till 24^h by two successive waves in Dec. (− 5′) and (− 9′), and double wave in H.F. (− ·0013 to + ·0016). 20^h to 22½^h Wave in V.F. (+ ·0004).

4^d 0^h to 10^h Small fluctuations in Dec., H.F. and V.F. 5^h to 7^h Double wave in Dec. (− 4′ to + 4′). 6^h to 7^h Wave in H.F. (+ ·0012). 13^h to 21^h Small occasional fluctuations in Dec. and H.F.

5^d 0^h to 2^h Small fluctuations in Dec. (± 2′) : serrated wave in H.F. (+ ·0015) : wave in V.F. (− ·0007). 6^h to 15^h Small rapid fluctuations in Dec., H.F. and V.F. 14^h to 15^h Wave in H.F. (− ·0018). 21^h to 23^h Wave in Dec. (− 7′) : small fluctuations in H.F. : wave in V.F. (− ·0004).

6^d 1½^h to 6^h Two successive waves in Dec. (+ 6′) and (+ 5′), followed by small fluctuations till 22^h: small fluctuations also in H.F.

7^d 2^h to 3^h Wave in Dec. (+ 5′) : in H.F. (+ ·001).

7^d 22^h to 24^h Small fluctuations in Dec., H.F. and V.F.

8^d 12^h to 9^d 12^h. See Plate II.

9^d 12^h to 13^h Wave in Dec. (− 5′) : double wave in H.F. (− ·001 to + ·001), followed by small fluctuations till 15^h. 15½^h to 20^h Two successive waves in Dec. (− 12′) and (− 8′) : fluctuations in H.F. (± ·001) : long shallow wave in V.F. (+ ·0009). 22½^h to 24^h Wave in Dec. (− 5′) : in H.F. (+ ·0018) : in V.F. small.

10^d 17^h to 18^h Wave in Dec. (− 9′) : double wave in H.F. (− ·001 to + ·0015) : wave in V.F. (+ ·0003).

11^d 20½^h to 21½^h Wave in Dec. (− 3′), followed by small fluctuations till 23^h. 22^h to 24^h Wave in H.F. (+ ·001) : small fluctuations in V.F.

13^d 6½^h to 8^h Wave in Dec. (+ 6′): in H.F. (− ·001), followed till 12^h by small fluctuations in Dec., H.F. and V.F.

13^d 12^h to 15^d 12^h. See Plate II.

15^d 12^h to 15^h Minor fluctuations in Dec., H.F. and V.F., with wave in H.F. 14^h to 15^h (− ·001). 20^h to 21^h Wave in Dec. (− 5′), 21½^h to 22½^h irregular wave (+ 6′), 15^d 23½^h to 16^d 1½^h double-crested wave (− 8′), followed by two long shallow waves till 16^d 7^h (− 5′) and (− 3′). 15^d 20½^h to 16^d 0^h Two successive waves in H.F. (+ ·0026) and (+ ·0034), followed by small fluctuations till 16^d 2^h : small fluctuations in V.F.

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March 16d $7\frac{1}{2}^h$ to 8^h Sharp wave in Dec. (— 5′) : in H.F. small. 14^h to 24^h Rapid fluctuations in Dec. (± 5′): in H.F. (± ·001) : in V.F. small, with two successive waves in Dec. $21\frac{1}{2}^h$ to 23^h (— 8′) and (— 5′): double wave in H.F. 20^h to 23^h (+ ·003 to — ·0026) : wave in V.F. 21^h to 24^h (— ·0007).

17d 11^h to 23^h Fluctuations in Dec. (± 3′) : in H.F. (± ·001): in V.F. small, with double waves $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ in Dec. (+ 11′ to — 11′) : in H.F. (— ·0028 to + ·0022) : in V.F. (+ ·0003 to — ·0003).

18d $0\frac{1}{2}^h$ to 3^h Wave in Dec. (+ 6′) : in H.F. and V.F. small. 5^h to 7^h Wave in Dec. (+ 6′): in H.F. (— ·001) : in V.F. small, followed by small fluctuations till 11^h. $15\frac{1}{2}^h$ to 16^h Decrease of Dec. (— 8′). 17^h to 23^h Small fluctuations in Dec., H.F. and V.F., with wave in Dec. 18^h to 19^h (— 8′) : in H.F. (+ ·0018).

19d 5^h to 7^h Small wave in Dec.: in H.F. (— ·0018).

19d 13^h to 22^h Occasional small fluctuations in Dec. and H.F. : long shallow wave in V.F. (+ ·0009).

20d 0^h to $2\frac{1}{2}^h$ Two successive waves in Dec. (+ 3′) and (+ 3′) : small fluctuations in H.F. and V.F.

20d 12^h to 22^h Occasional small fluctuations in Dec., H.F. and V.F., with wave in Dec. 20^h to 22^h (— 6′).

21d 0^h to 3^h Shallow wave in Dec. (— 5′). 0^h to $1\frac{1}{2}^h$ Wave in H.F. (+ ·0012).

21d 15^h to 19^h Small fluctuations in Dec., H.F. and V.F. $17\frac{1}{2}^h$ Decrease of Dec. (— 5′). $22\frac{1}{2}^h$ to 24^h Wave in Dec. (+ 7′) : in H.F. (+ ·0014). 23^h to $23\frac{1}{2}^h$ Decrease of V.F. (— ·0005).

22d 14^h to $17\frac{1}{2}^h$ Small fluctuations in Dec. and H.F., followed till 20^h by an irregular wave in Dec. (— 11′) and in H.F. by two successive waves (— ·0024) and (— ·002). 16^h to 23^h Wave in V.F. (+ ·0011). $21\frac{1}{2}^h$ to 22^h Sharp wave in Dec. (— 8′) : in H.F. (+ ·003), followed by small fluctuations till 24^h.

23d 1^h to 3^h Wave in H.F. (+ ·002). $1\frac{1}{2}^h$ to 4^h Wave in V.F. (— ·0004). 2^h to 3^h Wave in Dec. (— 4′).

23d 14^h to 15^h Decrease of Dec. (— 5′): wave in H.F. (— ·0012). 21^h to 22^h Small wave in Dec. : in H.F. (+ ·0014).

24d 13^h to 25d 11^h Occasional small fluctuations in Dec., H.F. and V.F.

25d 12^h to 23^h Small fluctuations in Dec. : in H.F. (± ·001) : in V.F. small.

26d $7\frac{1}{2}^h$ to $8\frac{1}{2}^h$ Small fluctuations in Dec.: wave in H.F. (— ·001). 10^h to 12^h Wave in Dec. (+ 4′), followed by small fluctuations till 14^h. 10^h to 14^h Two successive waves in H.F. (— ·0035) and (— ·0018). 12^h to 14^h Small fluctuations in V.F.

27d 9^h to 17^h Fluctuations in Dec. (± 4′) : in H.F. (± ·001) : small occasional fluctuations in V.F.

28d 12^h to 18^h Occasional small fluctuations in Dec., H.F. and V.F.

29d 0^h to 10^h Small fluctuations in Dec., H.F. and V.F.

30d 4^h to 11^h Small fluctuations in Dec., H.F. and V.F. $12\frac{1}{2}^h$ to 14^h Wave in Dec. (+ 5′) : in H.F. (+ ·002), followed by two successive waves in H.F. from 15^h to $16\frac{1}{2}^h$ (+ ·0014) and (+ ·002). 18^h to 21^h Double wave in H.F (+ ·0014 to — ·0012), followed by fluctuations till 24^h (± ·0008). 19^h to $20\frac{1}{2}^h$ Wave in Dec. (— 9′). 23^h to 24^h Decrease of Dec. (— 11′). Very small fluctuations throughout in V.F.

31d 5^h to 22^h Fluctuations in Dec., H.F. and V.F., with double wave in H.F. 14^h to $16\frac{1}{2}^h$ (+ ·001 to — ·0016), and wave $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ (+ ·0015).

April 1d $1\frac{1}{2}^h$ to 3^h Wave in Dec. (+ 10′), followed by small fluctuations in Dec., H.F. and V.F. till 16^h, with waves 2^h to 5^h in V.F. (— ·0007). $13\frac{1}{2}^h$ to $15\frac{1}{2}^h$ in H.F. (— ·0029). 21^h to $22\frac{1}{2}^h$ Wave in Dec. (— 12′) : in H.F. (+ ·0024).

2d 3^h to 21^h Small fluctuations in Dec., H.F. and V.F.

3d 1^h to 2^h Wave in Dec. (+ 4′) : in H.F. (+ ·001), followed by small fluctuations in Dec., H.F. and V.F. till 17^h. 17^h to 18^h Wave in H.F. (— ·0018).

4d 0^h to 2^h Two successive waves in Dec. (+ 4′) and (+ 3′) : wave in H.F. (+ ·0012). $13\frac{1}{2}^h$ to $14\frac{1}{2}^h$ Wave in Dec. (— 3′) : in H.F. (— ·001). 15^h to 17^h Two successive waves in H.F. (— ·0016) and (— ·0015) : in Dec. and V.F. small fluctuations. 23^h to $23\frac{1}{2}^h$ Wave in Dec. (+ 4′): in H.F. (+ ·001) : slight decrease of V.F.

5d $0\frac{1}{2}^h$ to $2\frac{1}{2}^h$ Two successive waves in Dec. (+ 6′) and (+ 5′) : wave in H.F. (+ ·001). 7^h to 18^h Small fluctuations in Dec. with wave 12^h to 14^h (+ 5′) : in H.F. fluctuations (± ·001). 18^h to 20^h Wave in H.F. (— ·0028). 18^h to 21^h Wave in Dec. (— 7′), followed by small fluctuations till 23^h : small fluctuations in V.F.

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April 6^d 0^h to 23^h Frequent small fluctuations in Dec., H.F. and V.F., with waves in Dec. 0^h to 1^h (+ 5′), 2^h to 4^h (+ 10′), 19^h to 20^h (+ 3′), $20\frac{1}{2}^h$ to 22^h (− 7′): in H.F. $3\frac{1}{2}^h$ to 5^h (− ·0014), $5\frac{1}{2}^h$ to 7^h (− ·0014), 17^h to 19^h (+ ·0017), $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ (+ ·0016): in V.F. 2^h to 5^h (− ·0007).

7^d $0\frac{1}{2}^h$ to 3^h Wave in Dec. (+ 6′): in H.F. small. 1^h to 4^h Shallow wave in V.F. (− ·0004). 5^h to 16^h Very small fluctuations in Dec., H.F. and V.F. 12^h to 13^h Wave in H.F. (+ ·001): in Dec. small. 18^h to 19^h Wave in Dec. (− 4′): in H.F. (+ ·0016).

8^d $16\frac{1}{2}^h$ to 18^h Small decrease of Dec.: wave in H.F. (− ·0018): in V.F. small fluctuations.

8^d $23\frac{1}{2}^h$ to 9^d 1^h Wave in Dec. (+ 4′).

9^d 22^h to 24^h Wave in Dec. (− 4′): in H.F. small fluctuations.

10^d 3^h to $4\frac{1}{2}^h$ Wave in Dec. (+ 7′). 3^h to 6^h Wave in H.F. (+ ·0018). 3^h to 7^h Long shallow wave in V.F. (− ·0005). 12^h to $13\frac{1}{2}^h$ Wave in H.F. (+ ·0012). $15\frac{1}{2}^h$ to 16^h Wave in H.F. (− ·001). $19\frac{1}{2}^h$ to 20^h Wave in H.F. (− ·001), followed by small fluctuations till 23^h. $19\frac{1}{2}^h$ to 23^h Two successive waves in Dec. (− 6′) and (− 6′): in V.F. small fluctuations.

10^d $23\frac{1}{2}^h$ to 11^d $2\frac{1}{2}^h$ Irregular wave in Dec. (− 11′): in H.F. (+ ·0038): in V.F. (− ·0008).

11^d 6^h to 12^d 6^h. See Plate III.

12^d 6^h to 19^h Fluctuations in Dec. (± 3′): in H.F. (± ·001): in V.F. small. 20^h to $20\frac{1}{2}^h$ Sharp double wave in Dec. (− 5′ to + 3′). 20^h to 22^h Wave in H.F. (+ ·0026): in V.F. (− ·0005). 21^h to $22\frac{1}{2}^h$ Wave in Dec. (+ 5′).

12^d $22\frac{1}{2}^h$ to 13^d 2^h Two successive waves in H.F. (+ ·0020) and (+ ·0014), followed by shallow wave till 4^h (+ ·0012). 13^d 0^h to 1^h Wave in Dec. (− 4′), and double wave till $3\frac{1}{2}^h$ (− 5′ to + 5′): fluctuations in V.F. (± ·0003).

13^d 11^h to $15\frac{1}{2}^h$ Small fluctuations in Dec. and H.F. $15\frac{1}{2}^h$ to 17^h Decrease of Dec. (− 8′): double wave in H.F. (− ·001 to + ·0012). $15\frac{1}{2}^h$ to 19^h Shallow wave in V.F. (+ ·0005). 19^h to $20\frac{1}{2}^h$ Wave in Dec. (− 8′): double wave in H.F. (− ·001 to + ·001), followed till midnight by fluctuations in Dec. (± 3′): in H.F. (± ·001).

14^d 2^h to 4^h Wave in Dec. (+ 7′): in H.F. (+ 0018), followed till 16^h by small fluctuations in all elements. $17\frac{1}{2}^h$ to 19^h Wave in Dec. (− 5′). $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Wave in H.F. (− ·001). $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Small wave in Dec.: in H.F. (+ ·0012).

15^d $0\frac{1}{2}^h$ to 1^h Wave in Dec. (+ 4′). $11\frac{1}{2}^h$ to 16^h Long wave in Dec. (+ 7′): fluctuations in H.F. (± ·0008), followed 17^h to 18^h by wave (− ·001). 13^h to 17^h Increase of V.F. (+ ·0014).

16^d 0^h to 8^h Occasional small fluctuations in Dec. and H.F., with wave in Dec. $4\frac{1}{2}^h$ to 8^h (+ 6′). $12\frac{1}{2}^h$ to 14^h Wave in Dec. (+ 5′): in H.F. (+ ·0024). 16^h to $17\frac{1}{2}^h$ Fluctuations in H.F. (± ·001), followed by wave till 19^h (+ ·0036), and rapid fluctuations till 22^h (± ·0014). $16\frac{1}{2}^h$ to 20^h Rapid fluctuations in Dec. (± 5′), followed by double wave till $22\frac{1}{2}^h$ (+ 8′ to − 6′). 17^h to 20^h Irregular wave in V.F. (+ ·0006). $22\frac{1}{2}^h$ to 24^h Wave in Dec. (+ 4′): in H.F. (− ·0016).

17^d $1\frac{1}{2}^h$ to 3^h Small fluctuations in Dec.: wave in H.F. (+ ·0014). 7^h to 9^h Wave in H.F. (− ·0016). 12^h to 22^h Small fluctuations in H.F. and V.F.: waves in Dec. $19\frac{1}{2}^h$ to 20^h (− 3′), and 21^h to 22^h (+ 4′).

18^d 0^h to $1\frac{1}{2}^h$ Wave in Dec. (+ 3′), and again $2\frac{1}{2}^h$ to 4^h (+ 5′). 6^h to 7^h Small wave in Dec. 13^h to 19^h Small fluctuations in Dec. and H.F.: long shallow wave in V.F. (+ ·001).

19^d $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Small wave in Dec.: in H.F. (− ·0012). $19\frac{1}{2}^h$ to 20^h Wave in Dec. (− 4′): in H.F. (+ ·001). 21^h to 23^h Double wave in Dec. (− 6′ to + 5′): fluctuations in H.F. (± ·001). $21\frac{1}{2}^h$ to 24^h Sharp wave in V.F. (− ·0006).

20^d 1^h to $2\frac{1}{2}^h$ Wave in Dec. (+ 4′): in H.F. (+ ·0022). 1^h to 4^h Decrease of V.F. (− ·0005). $4\frac{1}{2}^h$ to 7^h Wave in Dec. (+ 4′): shallow wave in H.F. (+ ·0014).

21^d 1^h to 2^h Wave in Dec. (+ 4′): in H.F. small.

23^d 6^h to 7^h Sharp wave in Dec. (− 4′): in H.F. small. 13^h to $18\frac{1}{2}^h$ Fluctuations in H.F. (± ·001). $15\frac{1}{2}^h$ to $17\frac{1}{2}^h$ Wave in H.F. (− ·0036), with superposed fluctuations (± ·001): small fluctuations in Dec. and V.F. $18\frac{1}{2}^h$ to 20^h Sharp wave in Dec. (− 12′): wave in H.F. (− ·0025): sharp wave in V.F. (+ ·0008). 21^h to 23^h Sharp wave in Dec. (− 21′). 21^h to 22^h Wave in H.F. (− ·003): in V.F. (− ·0004).

24^d 4^h to 23^h Small fluctuations in Dec. and H.F.

25^d $3\frac{1}{2}^h$ to 5^h Wave in Dec. (+ 6′): in H.F. (+ ·0014): in V.F. (− ·0005).

25^d 7^h to 21^h Small fluctuations in Dec. and H.F. 15^h to $16\frac{1}{2}^h$ Two successive waves in H.F. (+ ·0018) and (+ ·0016).

26^d $4\frac{1}{2}^h$ to 6^h Wave in Dec. (+ 4′). 12^h to 13^h Wave in Dec. (+ 3′): in H.F. (+ ·0012). 15^h to $16\frac{1}{2}^h$ Small wave in Dec.: in H.F. (− ·0014). $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Wave in H.F. (− ·001). $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Wave in Dec. (− 3′), followed by small fluctuations till midnight. $21\frac{1}{2}^h$ to 24^h Two successive waves in H.F. (− ·0014) and (− ·0012): in V.F. small.

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April 27^d^ 4^h^ to 7½^h^ Two successive waves in Dec. (+ 7′) and (+ 7′), and in H.F. (+ ·002) and (+ ·0028). 4^h^ to 6^h^ Wave in V.F. (− ·0004).

28^d^ 23½^h^ to 24^h^ Small fluctuations in Dec.: wave in H.F. (+ ·001): small decrease of V.F.

30^d^ 15^h^ to 22^h^ Small fluctuations in Dec., H.F. and V.F.

May 1^d^ 13^h^ to 14^h^ Wave in H.F. (− ·0012). 16^h^ to 19^h^ Wave in Dec. (− 6′): in H.F. two successive waves (− ·0018) and (− ·001). 17^h^ to 20^h^ Shallow wave in V.F. (+ ·0006).

2^d^ 7^h^ to 15^h^ Small fluctuations in Dec., H.F. and V.F. 15½^h^ to 16^h^ Sharp wave in Dec. (+ 3′): in H.F. (+ ·0028): in V.F. small fluctuations. 16^h^ to 23^h^ Fluctuations in Dec. (± 2′), with wave 18^h^ to 19^h^ (− 7′): in H.F. fluctuations (± ·001): in V.F. small.

3^d^ 0^h^ to 1½^h^ Wave in Dec. (+ 6′): in H.F. (+ ·0014). 2^h^ to 7^h^ Small fluctuations in Dec. and H.F., with wave in H.F. 6½^h^ to 8½^h^ (− ·002). 7½^h^ to 9^h^ Wave in Dec. (+ 5′). 12^h^ to 14^h^ Wave in H.F. (− ·0014).

5^d^ 3^h^ to 5^h^ Wave in Dec. (+ 4′): in H.F. very small. 14^h^ to 16^h^ Small fluctuations in Dec. and H.F. 18^h^ to 19^h^ Wave in Dec. (− 5′): in H.F. (− ·0018): in V.F. small fluctuations. 21^h^ to 22^h^ Sharp wave in Dec. (+ 8′): sharp double wave in H.F. (+ ·0018 to − ·0008): wave in V.F. steep at commencement (− ·0007).

6^d^ 0^h^ to 4^h^ Two successive shallow waves in Dec. (− 4′) and (− 3′): in H.F. and V.F. small. 15^h^ to 20^h^ Small occasional fluctuations in Dec. and H.F., with wave in H.F. 15^h^ to 16^h^ (+ ·001) and irregular wave 17^h^ to 19^h^ (+ ·0022). 21½^h^ to 22½^h^ Wave in H.F. (− ·001). 23^h^ to 24^h^ Sharp wave in Dec. (− 7′): in H.F. (+ ·0012).

7^d^ 1^h^ to 22^h^ Small fluctuations in Dec.: in H.F. (± ·0008): in V.F. very small. 14^h^ to 16^h^ Two successive waves in H.F. (− ·0014 and − ·0020). 16½^h^ to 17½^h^ Wave in H.F. (− ·0012) and again 20½^h^ to 21½^h^ (+ ·0018). 20½^h^ to 22^h^ Wave in Dec. (− 8′).

8^d^ 3^h^ to 4½^h^ Double wave in Dec. (− 3′ to + 4′). 3½^h^ to 4½^h^ Wave in H.F. (+ ·0014), followed in Dec. and H.F. by small fluctuations till 9^h^. 4^h^ to 5^h^ Wave in V.F. (− ·0005). 13^h^ to 18^h^ Small fluctuations in Dec. 13½^h^ to 15½^h^ Double wave in H.F. (+ ·0016 to − ·001). 16½^h^ to 19^h^ Two successive waves in H.F. (+ ·0018) and (+ ·0012). 19^h^ to 21^h^ Two successive steep waves in Dec. (− 11′) and (− 7′). 19^h^ to 20^h^ Sharp wave in H.F. (+ ·003), followed till 22^h^ by fluctuations (± ·0008). 19½^h^ to 20^h^ Wave in V.F. (+ ·0003). 22^h^ to 23½^h^ Wave in Dec. (− 7′): in H.F. (− ·0008) with small superposed fluctuations.

9^d^ 6^h^ to 13^h^ Small fluctuations in Dec., H.F. and V.F. 14^h^ to 15^h^ Wave in H.F. (+ ·001), followed by small fluctuations till 18^h^. 18½^h^ to 19½^h^ Wave in Dec. (− 4′): irregular wave in H.F. (+ ·0016).

10^d^ 5^h^ to 11^d^ 5^h^. See Plate III.

11^d^ 15½^h^ to 17½^h^ Wave in H.F. (+ ·0012): in Dec. small.

12^d^ 17^h^ to 23^h^ Small occasional fluctuations in Dec. and H.F., with wave in H.F. 19^h^ to 20^h^ (+ ·001).

13^d^ 1½^h^ to 4½^h^ Double shallow wave in Dec. (+ 3′ to − 3′): in H.F. and V.F. small. 12^h^ to 22^h^ Very small fluctuations in Dec. and H.F., with double wave in H.F. 19^h^ to 21^h^ (+ ·0008 to − ·001).

14^d^ 7^h^ to 17^h^ Small fluctuations in Dec.: in H.F. (± ·0008). 14^h^ to 15^h^ Sharp wave in V.F. (+ ·0006). 17½^h^ to 19^h^ Double-crested wave in Dec. (+ 7′): double wave in H.F. (+ ·0032 to − ·0014): small fluctuations in V.F. 19½^h^ to 20^h^ Sharp wave in Dec. (− 5′): in H.F. (+ ·001). 20½^h^ to 21½^h^ Sharp double wave in Dec. (− 8′ to + 6′): wave in H.F. (+ ·003): decrease of V.F. (− ·001).

14^d^ 22^h^ to 15^d^ 1^h^ Double wave in Dec. (+ 4′ to − 6′), followed by shallow wave till 15^d^ 3^h^ (− 4′): fluctuations in H.F. (± ·0008). 3^h^ to 4^h^ Increase of Dec. (+ 7′). 4^h^ to 6^h^ Wave in H.F. (+ ·001).

16^d^ 19^h^ to 21^h^ Wave in Dec. (− 3′): in H.F. small fluctuations.

17^d^ 0^h^ to 1^h^ Wave in Dec. (+ 3′): in H.F. very small fluctuations. 19½^h^ to 21½^h^ Small fluctuations in H.F. (± ·0006).

17^d^ 21½^h^ to 18^d^ 3^h^ Three successive waves in Dec. (− 5′), (− 3′) and (− 5′).

18^d^ 0½^h^ to 2^h^ Wave in H.F. (+ ·001).

18^d^ 5½^h^ to 7½^h^ Two successive waves in Dec. (− 4′) and (− 4′): in H.F. small. 12^h^ to 20^h^ Very small fluctuations in Dec.: occasional fluctuations in H.F. (± ·0006). 19½^h^ to 20^h^ Sharp wave in H.F. (+ ·0024). 16^h^ to 22^h^ Long shallow wave in V.F. (+ ·0009).

18^d^ 23^h^ to 19^d^ 1^h^ Fluctuations in Dec. (± 2′): in H.F. (± ·0008): in V.F. small.

19^d^ 11^h^ to 20^h^ Small occasional fluctuations in H.F.

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May 20d 0h to 1h Wave in Dec. (+ 3′): in H.F. small, followed till 11h by small fluctuations in Dec. (± 2′): in H.F. very small. $11\frac{1}{2}$h to $12\frac{1}{4}$h Wave in Dec. (— 3′). 12h to 13h Wave in H.F. (+ ·0012), followed by small fluctuations till 23h.

21d 0h to 2h Wave in Dec. (— 3′): in H.F. 0h to 1h (+ ·001), followed till 16h by small fluctuations in Dec. and H.F. 17h to 18h Decrease of Dec. (— 5′): wave in H.F. (+ ·0022), followed by small fluctuations till 21h: very small fluctuations in V.F.

22d 3h to 19h Small fluctuations in Dec. with sharp wave 8h to $8\frac{1}{2}$h (— 4′): fluctuations in H.F. (± ·001): in V.F. small.

24d 18h to 19h Wave in H.F. (— ·001). $19\frac{1}{2}$h to 21h Wave in Dec. (— 4′): in H.F. small.

25d 15h to 19h Decrease of Dec. (— 11′): shallow wave in H.F. (— ·0024).

26d 0h to 1h Wave in Dec. (— 3′): fluctuations in H.F. (± ·0006).

27d 15h to $15\frac{1}{2}$h Small wave in Dec.: sharp wave in H.F. (+ ·001). $17\frac{1}{2}$h to $18\frac{1}{2}$h Sharp wave in H.F. (+ ·0014).

28d $7\frac{1}{2}$h to 8h Sharp wave in Dec. (— 3′): in H.F. very small. 12h to 13h Wave in H.F. (+ ·001). 14h to 15h Small fluctuations in Dec.: wave in H.F. (+ ·0018), followed till $16\frac{1}{2}$h by irregular wave (+ ·0032). 14h to 21h Long shallow wave in V.F. (+ ·0006). 17h to 18h Small fluctuations in Dec.: in H.F. (± ·002): in V.F. small and sharp.

29d 0h to 30d 0h. See Plate III.

30d 0h to 7h Occasional small fluctuations in Dec. and H.F.

30d 16h to 31d 3h Fluctuations in Dec. (± 3′), with two successive waves 30d 21h to 31d 1h (— 9′) and (— 10′): fluctuations in H.F. (± ·001), with sharp wave 19h to 20h (+ ·0024). 30d 14h to 22h Long shallow wave in V.F. (+ ·0013). 30d 23h to 31d 0h Sharp wave in V.F. (— ·0004).

31d 5h to 6h Fluctuations in Dec. (± 2′): decrease of H.F. (— ·003). 22h to 24h Fluctuations in Dec. (± 3′). 23h to 24h Wave in H.F. (+ ·003): in V.F. (— ·0004).

June 1d 18h to 23h Small fluctuations in Dec., H.F. and V.F.

2d $2\frac{1}{2}$h to 9h Long wave in Dec. (— 9′) with superposed fluctuations (± 2′): two successive small shallow waves in V.F. 6h to $9\frac{1}{2}$h Wave in H.F. (— ·0022) with small superposed fluctuations. 12h to 24h Rapid fluctuations in Dec. (± 3′): in H.F. (± ·0015). 12h to 22h Long shallow wave in V.F. (+ ·0014).

3d $5\frac{1}{2}$h to 7h Wave in Dec. (— 6′) with small superposed fluctuations. 7h to $9\frac{1}{2}$h Small fluctuations in Dec.: wave in H.F. (+ ·0016). 12h to 14h Shallow double-crested wave in Dec. (+ 4′): double wave in H.F. (+ ·0012 to — ·0012). 16h to 23h Fluctuations in Dec. (± 2′): in H.F. (rapid) (± ·002): in V.F. (± ·0002).

4d 0h to 3h Wave in Dec. (— 8′): two successive waves in H.F. (+ ·0024) and (+ ·0026): double-crested wave in V.F. (— ·0012). 3h to 11h Small fluctuations in Dec., H.F. and V.F. 13h to 24h Occasional fluctuations in Dec. (± 2′): in H.F. (± ·001). 18h to 20h Wave in H.F. (+ ·0024): small fluctuations in V.F.

5d $0\frac{1}{2}$h to $1\frac{1}{2}$h Wave in Dec. (+ 8′). 2h to 3h Decrease of H.F. (— ·002). 1h to 4h Wave in V.F. (— ·0006). 4h to 9h Small fluctuations in Dec., H.F. and V.F. 12h to $13\frac{1}{2}$h Wave in Dec. (+ 4′): two successive waves in H.F. till $15\frac{1}{2}$h (+ ·0018) and (+ ·002), followed by small fluctuations till 18h in Dec. and H.F. $20\frac{1}{2}$h Decrease of H.F. (— ·0014). 22h to 23h Wave in Dec. (+ 5′). $22\frac{1}{2}$h to $23\frac{1}{2}$h Wave in H.F. (+ ·0018). $22\frac{1}{2}$h to 23h Decrease of V.F. (— ·0005).

6d 14h to $15\frac{1}{2}$h Wave in H.F. (+ ·0016): in V.F. very small fluctuations. 17h to 20h Small wave in Dec.: in H.F. two successive waves (+ ·0032) and (+ ·003): in V.F. very small fluctuations. 22h to 24h Three successive waves in Dec. (+ 7′), (+ 4′) and (+ 3′): two successive waves in H.F. (+ ·003) and (+ ·0026). 22h to 23h Decrease of V.F. (— ·001), followed by a small positive wave.

7d $0\frac{1}{2}$h to 3h Wave in Dec., steep at commencement (+ 13′). $0\frac{1}{2}$h to 1h Wave in H.F. (+ ·0016): in V.F. (— ·0005). 2h to 5h Fluctuations in Dec. and H.F., with wave in Dec. (— 6′).

9d $3\frac{1}{2}$h to $4\frac{1}{2}$h Wave in Dec. (+ 3′): in H.F. small fluctuations. 4h to 6h Small wave in V.F. (— ·0003). 11h to 22h Small occasional fluctuations in H.F. 20h to 22h Wave in Dec., steep at commencement (— 6′).

10d 0h to $1\frac{1}{2}$h Small fluctuations in Dec.: double wave in H.F. (+ ·0016 to — ·0012). 0h to 3h Wave in V.F (— ·0008). 12h to 13h Wave in H.F. (— ·001). $14\frac{1}{2}$h to 17h Small fluctuations in Dec. and V.F.: two successive waves in H.F. (+ ·0018) and (+ ·0024). 22h to $23\frac{1}{2}$h Wave in Dec. (— 3′): in H.F. small.

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June 11d 0h to 1½h Wave in Dec. (+ 5′): in H.F. (+ ·0016), followed till 11h by small fluctuations in both elements. 0h to 5h Long shallow wave in V.F. (— ·0007). 12h to 23h Occasional fluctuations in H.F. (± ·0005): in Dec. and V.F. very small. 22½h to 23½h Wave in Dec. (+ 3′): in H.F. (— ·0008).

12d 23h to 23½h Decrease of Dec. (— 4′).

14d 22½h to 24h Wave in H.F. (+ ·001).

16d 0h to 7h Small rapid fluctuations in Dec. and H.F. 12h to 16h Fluctuations in H.F. (± ·0008), followed by double wave till 18h (— ·0024 to + ·002), and small fluctuations till 23h. 16h to 23h Small occasional fluctuations in Dec. and V.F.

17d 1h to 11h Fluctuations in Dec. (± 3′): in H.F. (± ·001), with wave in Dec. 3h to 4h (+ 5′), and two successive waves 6h to 7½h (— 5′) and (— 8′). 6h to 7h Wave in H.F. (— ·002). 2h to 11h Small fluctuations in V.F. 12h to 20h Small fluctuations in Dec.: in H.F. (± ·001). 17h to 19h Double wave in H.F. (— ·0015 to + ·0009). 12h to 22h Long wave in V.F. (+ ·001).

18d 0h to 1h Wave in Dec. (+ 5′): in H.F. (+ ·0016): decrease of V.F. (— ·0005). 1h to 3h Double wave in Dec. (— 5′ to + 5′), followed by small fluctuations till 10h. 1h to 10h Small fluctuations in H.F. and V.F. 14h to 18h Small fluctuations in Dec.: in H.F. (± ·0008).

19d 4h to 8h Small fluctuations in Dec., H.F. and V.F.

22d 15h to 16½h Small wave in Dec.: in H.F. two successive waves (+ ·0022) and (+ ·002): in V.F. small fluctuations. 22h to 22½h Decrease of Dec. (— 5′).

23d 0½h to 1h Sharp wave in Dec. (+ 6′): in H.F. (+ ·0014). 1h to 1½h Decrease of V.F. (— ·0004). 14h to 15h Wave in Dec. (+ 4′), followed by small fluctuations till 17h. 12h to 14h and 14½h to 16h Waves in H.F. (— ·002) and (— ·0024), followed by fluctuations (± ·001) till 19h: in V.F. small fluctuations. 19h to 20h Wave in Dec. (—3′): in H.F. (+ ·0012).

24d 0h to 1h Wave in Dec. (+ 4′): in H.F. small fluctuations. 0h to 3h Wave in V.F. (— ·0004). 18h to 20h Decrease of Dec. (— 4′). 17½h to 19h Double wave in H.F. (+ ·0008 to — ·001).

27d 0h to 1½h Wave in Dec. (+ 4′), followed till 6h by small occasional fluctuations: in H.F. very small fluctuations. 14h to 22h Small rapid fluctuations in Dec.: in H.F. (± ·001) in V.F. small.

28d 5h to 10h Small rapid fluctuations in Dec. and H.F. 12h to 23h Very small fluctuations in Dec. and V.F.: occasional fluctuations in H.F. (± ·0006).

29d 1h to 3h Wave in Dec., steep at commencement (— 7′): in H.F. (+ ·0014): in V.F. (— ·0003). 5h to 8h Small fluctuations in Dec., H.F. and V.F. 12h to 16h Small fluctuations in Dec.: in H.F. occasional (± ·0005). 21h to 22h Wave in Dec. (— 5′): in H.F. (— ·001): small fluctuations in V.F. 22½h to 23h Decrease of Dec. (— 4′).

30d 0h to 0½h Small wave in Dec.: in H.F. (+ ·001), followed till 3h by shallow wave in Dec. (—5′), and by very small fluctuations in H.F. 0h to 4h Wave in V.F. (— ·0003). 4h to 10h Small occasional fluctuations in Dec. and H.F., with wave in H.F. 7h to 10h (— ·002). 11½h to 12½h Wave in H.F. (+ ·0012), followed by fluctuations till 17h. 13½h to 24h Long wave in V.F. (+ ·0008), with small superposed fluctuations. 17h to 19h Large wave in H.F., steep at end (+ ·0042), followed by two successive waves till 22h (+ ·001) and (+ ·0012). 18h to 20h Two successive waves in Dec. (— 8′) and (— 4′). 23½h to 24h Sharp wave in Dec. (+ 4′): in H.F. (+ ·0022): decrease of V.F. (— ·0003).

July 1d 5h to 6h Wave in Dec. (— 4′), followed by long shallow wave till 10h (— 8′), with superposed fluctuations (± 2′): in H.F. and V.F. small fluctuations. 11h to 23h Fluctuations in Dec. (± 3′). 11½h to 13½h Two successive waves in H.F. (+ ·002) and (+ ·0025), followed by fluctuations till 15h. 15½h to 16½h Wave in H.F. (— ·002). 17½h to 19h Serrated double wave (— ·0018 to + ·0024), followed by fluctuations till 23h (± ·0007). 18½h to 20½h Two successive waves in Dec. (+ 7′) and (+ 3′): small fluctuations in V.F.

2d 0h to 3h Wave in Dec., steep at end (— 11′): irregular wave in H.F. (+ ·002). 1h to 2h Wave in V.F. (— ·0005). 4h to 12h Small fluctuations in Dec. and H.F., with sharp wave 6½h to 8h in Dec. (+ 5′): in H.F. (— ·0014). 4h to 11h Long shallow wave in V.F. (+ ·0007). 13h to 16h Small fluctuations in Dec. and V.F.: in H.F. (± ·001). 17h to 23h Occasional small fluctuations in Dec. and H.F. 19h to 20½h Sharp wave in Dec. (— 5′).

4d 15h to 22h Small fluctuations in Dec.: in H.F. (± ·0008), with wave 18h to 20h in Dec. (— 3′): in H.F. (— ·002). 16½h to 20h Wave in V.F. (+ ·0005).

5d 5h to 10h Small fluctuations in Dec. and H.F. 20½h to 21h Decrease of Dec. (— 5′): wave in H.F. (+ ·001), followed by small fluctuations till 23h.

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July 6^d 1^h to 2^h Wave in H.F. (+ ·0016) : decrease of V.F. (− ·0005). 2^h to $4\frac{1}{2}^h$ Double wave in Dec. (− 6′ to + 3′) : wave in H.F. (− ·001). $4\frac{1}{2}^h$ to $6\frac{1}{2}^h$ Decrease of H.F. (− ·0036), followed till 11^h by fluctuations in Dec. (± 2′) : in H.F. (± ·0006) : in V.F. small. 13^h to 18^h Small fluctuations in Dec. $13\frac{1}{2}^h$ to 15^h Sharp wave in H.F. (− ·0016), followed by rapid fluctuations till 16^h (± ·0014), and small fluctuations till 19^h. 13^h to 21^h Long wave in V.F. (+ ·0012). 20^h to $21\frac{1}{2}^h$ Wave in Dec. (− 5′). 20^h to 21^h Wave in H.F. (− ·0012).

7^d 11^h to 17^h Small fluctuations in H.F.

8^d 6^h to 11^h Very small fluctuations in Dec. and H.F. 13^h to 23^h Fluctuations in H.F. (± ·0006) : in V.F. small. 21^h to 22^h Wave in Dec. (− 3′).

9^d 16^h to 23^h Small occasional fluctuations in Dec., H.F. and V.F.

10^d $12\frac{1}{2}^h$ to 19^h Small fluctuations in H.F. with wave 16^h to 17^h (− ·001). 22^h to $22\frac{1}{2}^h$ Decrease of Dec. (− 5′).

11^d $8\frac{1}{2}^h$ Sharp movement in Dec. (− 5′). 9^h to 21^h Small fluctuations in H.F. with wave $14\frac{1}{2}^h$ to $15\frac{1}{2}^h$ (− ·001).

12^d $2\frac{1}{2}^h$ to $5\frac{1}{2}^h$ Two successive waves in Dec. (+ 6′) and (+ 4′) : in H.F. (+ ·0012) and (+ 0012), followed by small fluctuations in Dec., H.F. and V.F. till 8^h. 12^h to 15^h Small fluctuations in Dec. 12^h to $13\frac{1}{2}^h$ Two successive waves in H.F. (− ·001) and (− ·0014) ; 14^h to 17^h double wave (− ·0024 to + ·002). $15\frac{1}{2}^h$ to 16^h Wave in Dec. (+ 3′) : in V.F. small fluctuations. 17^h to $21\frac{1}{2}^h$ Small fluctuations in Dec., H.F. and V.F. 19^h to $19\frac{1}{2}^h$ Wave in H.F. (+ ·0012).

12^d 22^h to 13^d 3^h Three successive waves in Dec. (− 9′), (− 10′) and (− 13′). 12^d 21^h to $22\frac{1}{2}^h$ Wave in H.F. (− ·0022) : serrated wave 12^d 23^h to 13^d 1^h (− ·0028), and wave 13^d 1^h to 2^h (− ·002). 12^d 23^h to 13^d 0^h Decrease of V.F. (− ·0007), followed by wave 13^d 1^h to 2^h (− ·0008).

13^d 3^h to $8\frac{1}{2}^h$ Long wave in Dec. (− 9′), with superposed fluctuations (± 2′), followed by small fluctuations till 11^h. 2^h to 6^h Small fluctuations in H.F. followed by wave till 9^h (− ·0026), and by small fluctuations till 11^h. 2^h to 6^h Shallow wave in V.F. (− ·0005). 11^h to 13^h Small fluctuations in Dec. and H.F. 14^h to 17^h Double wave in H.F. (+ ·0012 to − ·001), followed by small fluctuations till 23^h. 22^h to 23^h Sharp wave in Dec. (− 5′).

14^d 2^h to 4^h Sharp double wave in Dec. (+ 9′ to − 6′) : in H.F. (+ ·0018 to − ·0016) : in V.F. wave (− ·001), followed by small occasional fluctuations in all elements till 13^h. 14^h to 17^h Double wave in H.F. (+ ·0018 to − ·002), followed by small fluctuations till 21^h.

15^d 0^h to 10^h Fluctuations in Dec. (± 2′), with wave 8^h to 9^h (− 5′): in H.F. small fluctuations with double wave 2^h to $3\frac{1}{2}^h$ (+ ·001 to − ·0012), and wave 7^h to 9^h (− ·0012). 2^h to 4^h Wave in V.F. (− ·0003), followed by very small fluctuations till 10^h. 12^h to 22^h Very small fluctuations in Dec., H.F. and V.F. $15\frac{1}{2}^h$ to $17\frac{1}{2}^h$ Wave in H.F. (− ·001).

16^d $6\frac{1}{2}^h$ to $8\frac{1}{2}^h$ Wave in Dec. (+ 5′) : in H.F. small. $8\frac{1}{2}^h$ to 10^h Wave in H.F. (− ·001) : small fluctuations in V.F. 16^h to 21^h Very small fluctuations in Dec. and V.F. : in H.F. (± ·0006).

17^d 2^h to 4^h Wave in Dec. (+ 4′) : in H.F. and V.F. small. 6^h to 18^h Small fluctuations in Dec., H.F. and V.F.

18^d 5^h to 18^h Small occasional fluctuations in Dec., H.F. and V.F. $13\frac{1}{2}^h$ to $14\frac{1}{2}^h$ Wave in H.F. (+ ·0012).

20^d 2^h to 20^h Small fluctuations in Dec., H.F. and V.F., with double irregular wave in Dec. 4^h to $6\frac{1}{2}^h$ (+ 4′ to − 3′). $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Wave in H.F. (− ·0014).

21^d 0^h to 3^h Two successive waves in Dec. (− 4′) and (− 3′) : wave in H.F. (+ ·0014). 0^h to 5^h Wave in V.F. (− ·0005). 14^h to 17^h Wave in H.F. (+ ·0016), followed by small fluctuations till 23^h.

22^d 1^h to $2\frac{1}{2}^h$ Wave in Dec. (− 5′) : small fluctuations in H.F. 3^h to 5^h Sharp wave in Dec. (+ 7′) : in H.F. (+ ·001) : in V.F. $3\frac{1}{2}^h$ to $5\frac{1}{2}^h$ (− ·0004).

23^d 0^h to 1^h Wave in Dec. (+ 3′) : in H.F. (+ ·001) : in V.F. small ; followed by small fluctuations in Dec. and H.F. till 17^h. $17\frac{1}{2}^h$ to 19^h Slight wave in H.F.

24^d 13^h to $14\frac{1}{2}^h$ Wave in H.F. (+ ·0016) : small fluctuations in V.F.

25^d 16^h to 17^h Small wave in H.F.

26^d 1^h to 3^h Sharp wave in Dec. (+ 9′) : fluctuations in H.F. (± ·0008) : wave in V.F. (− ·0005). 14^h to 22^h Small fluctuations in Dec. and V.F. : in H.F. (± ·001), with double wave 15^h to 17^h (− ·0018 to + ·0022). 22^h to $23\frac{1}{2}^h$ Wave in Dec. (− 5′).

27^d 0^h to 3^h Small fluctuations in Dec., H.F. and V.F. $3\frac{1}{2}^h$ to 5^h Wave in Dec. (+ 5′), followed by double wave till 8^h (− 7′ to + 7′). 5^h to 8^h Double wave in H.F. (− ·0018 to + ·0016) : wave in V.F. (+ ·0004): small fluctuations in Dec., H.F. and V.F. till 17^h, followed by sharp wave in Dec. till 18^h (− 6′). $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Wave in H.F. (+ ·0022). $19\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Two successive waves in Dec. (− 11′) and (− 5′): wave in H.F. (+ ·0034), followed by fluctuations in Dec. till 24^h (± 3′), and in H.F. till 22^h (± ·001). 22^h to $23\frac{1}{2}^h$ Serrated wave in H.F. (+ ·0024) : small fluctuations in V.F.

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July 28d 1h to 2½h Wave in Dec. (+ 4′), followed by small occasional fluctuations in Dec. and H.F. till 9h. 11½h to 12½h Wave in H.F. (− ·0012). 12½h to 13h Small wave in Dec., followed by very small occasional fluctuations in Dec., H.F. and V.F. till 17h. 17h to 18h Wave in H.F. (+ ·0016), and fluctuations afterwards (± ·001) till 22h. 19½h to 23h Two successive waves in Dec. (− 11′) and (− 5′). 20h to 20½h Small wave in V.F.

29d 2½h to 6½h Two successive waves in Dec. (− 5′) and (− 5′): small fluctuations in H.F. 12h to 20h Small fluctuations in Dec., H.F. and V.F.

30d 0h to 3h Fluctuations in Dec. (± 2′): double wave in H.F. (− ·001 to + ·001). 4h to 14h Fluctuations in Dec. (± 2′): in H.F. (± ·005): in V.F. small. 17½h to 19h Wave in H.F. (− ·0012). 21½h to 23h Wave in Dec. (+ 3′): in H.F. (+ ·0012).

31d 12h to 24h Small fluctuations in Dec. and V.F.: in H.F. (± ·0007).

August 1d 12h to 16h Very small fluctuations in H.F. and V.F., with wave in H.F. 13½h to 15h (+ ·001).

4d 11h to 23h Small fluctuations in H.F.

5d 2½h to 4½h Wave in Dec. (+ 5′): in H.F. (+ ·0012), followed by small fluctuations in Dec. and H.F. till 6½h. 12½h to 13½h Small wave in Dec.: sharp wave in H.F. (+ ·001), followed till 21h by small fluctuations in Dec. and V.F.: in H.F. (± ·0005).

6d 5h to 8h Small fluctuations in Dec. 12h to 14h Very small fluctuations in Dec. and V.F.: wave in H.F. (− ·0012), followed by small fluctuations till 17h.

9d 8h to 23h Very small fluctuations in Dec., H.F. and V.F.

10d 0h to 1½h Double wave in Dec. (+ 3′ to − 4′), followed by decrease till 2h (− 10′), and by small fluctuations till 3½h; 3½h to 7h three successive waves (+ 7′), (+ 8′) and (+ 5′): small fluctuations till 11h with wave 8h to 9½h (+ 6′). 1h to 2h Wave in H.F. (+ ·0014), followed by small fluctuations till 3½h. 3½h to 6h Two successive waves (+ ·0012) and (+ ·0018); 7h to 9h sharp wave (− ·0025) and fluctuations till 11h (± ·0026). 1h to 2h Decrease of V.F. (− ·0007), followed by small fluctuations and wave 8h to 10h (+ ·0003). 11½h to 12½h Small fluctuations in Dec.: wave in H.F. (− ·002), followed by small fluctuations till 14h. 14½h to 22h Fluctuations in Dec. (± 3′): in H.F. (± ·001), with irregular wave in Dec. 17h to 19h (− 10′), and sharp wave 20h to 21h (− 7′): double wave in H.F. 15½h to 16½h (− ·0018 to + ·0015), followed by two successive waves till 19h (+ ·003) and (+ ·0034). 14h to 22h Long wave in V.F. (+ ·002).

11d 3½h to 4h Wave in H.F. (− ·001): in V.F. small fluctuations. 4h to 8½h Double wave in Dec. (+ 5′ to − 8′): 7h to 8½h wave in H.F. (− ·0032). 21h to 22h Wave in Dec. (− 4′): in H.F. small.

12d 0h to 3h Two successive waves in Dec. (− 3′) and (− 5′): in H.F. fluctuations (± ·0006). 0h to 8h Long shallow wave in V.F. (− ·001). 4h to 5h Wave in Dec. (+ 3′): in H.F. small. 23h to 24h Wave in Dec. (+ 4′): in H.F. and V.F. small.

13d 18h to 20h Wave in Dec. (− 5′): small fluctuations in H.F. 22½h to 23½h Sharp wave in Dec. (+ 5′): in H.F. (+ ·0014): in V.F. small.

14d 2h to 4h Double wave in Dec. (+ 5′ to − 3′): in H.F. and V.F. small. 8h to 11h Fluctuations in Dec. (± 2′): in H.F. (± ·0005). 14½h to 16h Wave in H.F. (+ ·0018). 16½h to 17½h Wave in H.F. (+ ·0012): in Dec. small.

15d 4h to 11h Small fluctuations in Dec., H.F. and V.F.

16d 0h to 1h Wave in Dec. (+ 4′): in H.F. (+ ·001): decrease of V.F. (− ·0004).

17d 16h to 21h Fluctuations in H.F. (± ·0005): in Dec. small. 22h to 23h Small fluctuations in Dec.: wave in H.F. (+ ·001).

18d 14h to 15h Wave in H.F. (+ ·001), followed by fluctuations till 24h (± ·0005): small fluctuations in Dec. and V.F.

19d 1½h to 2h Sharp wave in Dec. (+ 8′). 1½h to 3h Wave in H.F. (+ ·0014): decrease of V.F. (− ·0003). 5h to 7h Wave in Dec. (+ 4′): in H.F. small.

20d 14h to 16h Wave in H.F. (− ·0012), followed by fluctuations till 22h. 16h to 18h Wave in Dec. (−4′). 22h to 23h Wave in Dec. (− 5′): in H.F. (+ ·001).

23d 15h to 18h Small fluctuations in H.F., followed by wave till 21h (+ ·0012). 22½h to 24h Wave in Dec. (− 5′): in H.F. fluctuations (± ·001): in V.F. small.

26d 2h to 5h Double wave in Dec. (+ 6′ to − 4′): in H.F. sharp pointed wave (+ ·0024): in V.F. (− ·0004).

28d 13½h to 14½h Small wave in Dec.: in H.F. (− ·0012), followed by small fluctuations till 16h.

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August 29d 12h to 13½h Small fluctuations in Dec.: irregular wave in H.F. (— ·0014). 15h to 17h Small fluctuations in Dec. and H.F., with wave in H.F. 16½h to 17h (— ·0016). 21½h to 23h Wave in Dec. (— 5′): in H.F. small.

30d 0h to 17h Small fluctuations in Dec., H.F. and V.F.

31d 12h to 23h Small fluctuations in H.F. 21½h Decrease of Dec. (— 9′).

September 1d 21½h to 24h Small fluctuations in Dec. and H.F.

3d 18h to 22h Small fluctuations in Dec. and H.F., with wave in Dec. 20½h to 21½h (— 3′): in H.F. (+ ·001).

4d 0½h to 1h Small wave in Dec. and V.F.: sharp wave in H.F. (+ ·002), followed by small fluctuations in Dec. and H.F. till 2h. 2½h to 5h Double wave in Dec. (+ 8′ to — 9′). 3h to 5h Wave in H.F. (+ ·002): in V.F. (— ·0006). 7h to 11h Increase of Dec. (+ 15′), with fluctuations (± 2′): in V.F. small fluctuations. 6½h to 7½h Decrease of H.F. (— ·0038), with small fluctuations till 11h. 12h to 18h Small fluctuations in Dec., H.F. and V.F., with waves 12h to 13h in Dec. (— 3′): in H.F. (— ·0014). 14h to 16h Wave in H.F. (— ·003), followed by small fluctuations till 18h. 15h to 15½h Decrease of Dec. (— 5′). 18h to 19h Double wave in H.F. (— ·0016 to + ·0015), followed by fluctuations (± ·001) and two successive waves till 21h (— ·0026) and (— ·0022). 18h to 20½h Two successive double waves in Dec. (— 6′ to + 3′) and (+ 5′ to — 10′), followed by fluctuations till 21h (± 2′): small changes in V.F. 21h to 24h Wave in Dec. (+ 10′). 21½h to 24½h Wave in H.F. (— ·0016). 23h to 24h Decrease of V.F. (— ·0006).

5d 1½h to 3h Wave in Dec. (— 3′), followed by double wave till 6½h (— 4′ to + 3′). 1½h to 7h Small fluctuations in H.F. with double-crested wave 2½h to 4½h (+ ·001). 7½h to 8½h Decrease of H.F. (— ·0032), followed by small fluctuations in Dec., H.F. and V.F. till 15h.

9d 4½h to 5½h Sharp pointed wave in Dec. (+ 3′).

10d 0½h to 1h Sharp pointed wave in Dec. (+ 3′): in H.F. and V.F. small. 5h to 8h Shallow wave in Dec. (— 4′): in H.F. small.

11d 20½h to 23h Very small fluctuations in Dec.: wave in H.F. (— ·001).

12d 1h to 2h Wave in H.F., steep at commencement (+ ·001). 20½h to 22h Wave in Dec. (— 3′).

13d 20½h to 22h Wave in Dec. (— 5′).

14d 13h to 14h Wave in Dec. (+ 3′): in H.F. 12½h to 14h (+ ·0024). 15½h to 17½h Wave in H.F. (— ·0016). 21h to 22½h Decrease of Dec. (— 7′): fluctuations in H.F. (± ·0005), followed by waves till 15d 0½h in Dec. (— 7′): in H.F. (— ·002): in V.F. small.

15d 3h to 5h Double wave in Dec. (— 4′ to + 5′), followed by wave till 6h (+ 6′): in H.F. 3h to 7h two successive waves (+ ·002) and (+ ·0016): small fluctuations in V.F. 7h to 19h Small fluctuations in Dec., H.F. and V.F., with waves in Dec. 7½h to 8½h (+ 4′), and 18h to 19h (— 4′): in H.F. 9h to 11h (— ·0014): 13h to 14h (— ·0018): 16½h to 17½h (+ ·0018). 19½h to 21½h Double-crested wave in Dec. (— 5′). 20h to 21h Wave in H.F. (+ ·0012). 15d 23h to 16d 1h Wave in Dec. (— 10′): in H.F. (+ ·0022): decrease of V.F. (— ·0006).

16d 2½h to 5h Wave in Dec. (+ 7′): in H.F. (+ ·002): in V.F. 3h to 6h shallow wave (— ·0004), followed till 10h by small fluctuations in Dec. and H.F. 20h to 21½h Wave in Dec. (— 6′): in H.F. fluctuations (± ·001).

17d 0½h to 3½h Double wave in Dec. (— 5′ to + 8′): wave in H.F. (— ·0014): in V.F. 2h to 5h (— ·0005), followed by small fluctuations in Dec., H.F. and V.F. till 10h. 13h to 14½h Small wave in Dec.: sharp wave in H.F. (+ ·002). 19h to 20½h Wave in Dec. (— 3′). 22h to 23h Fluctuations in Dec. (± 2′), followed by wave till 24h (— 5′). 22½h to 23½h Wave in H.F. (+ ·0018): in V.F. (— ·0004).

18d 12h to 12½h Wave in Dec. (+ 3′): in H.F. small wave followed by small fluctuations till 21h in Dec., H.F. and V.F. 21½h to 23½h Double wave in Dec. (— 6′ to + 6′): in H.F. (— ·002 to + ·003): in V.F. (+ ·0004 to — ·0003).

19d 1h to 6h Double wave in Dec. (+ 8′ to — 5′): in H.F. (+ ·0015 to — ·0013): wave in V.F. (— ·0008), followed by small fluctuations in Dec. and H.F. till 10h. 12h to 13h Double-crested wave in Dec. (+ 4′), followed by small fluctuations till 20h. 12h to 12½h Sharp wave in H.F. (+ ·001), followed by double wave till 14h (+ ·001 to — ·0018); small fluctuations till 15½h and wave (— ·0016) till 17h. 17½h to 18h Wave (+ ·0012) succeeded by double wave till 19h (+ ·001 to — ·001): small fluctuations in V.F. 19d 23h to 20d 1h Double wave in Dec. (+ 5′ to — 4′): 19d 22h to 20d 1h small fluctuations in H.F., with waves 22½h to 23½h (— ·001): and 20d 0h to 1h (— ·0014).

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September 20^d 2^h to 3^h Wave in Dec. (− 4′): in H.F. (− ·001): in V.F. small. 4^h to 10^h Fluctuations in Dec. (± 3′): in H.F. (± ·0005), with sharp wave in Dec. $6\frac{1}{2}^h$ to $7\frac{1}{2}^h$ (− 5′): wave in H.F. 7^h to 9^h (− ·0024): small fluctuations in V.F. 12^h to 13^h Wave in Dec. (+ 4′): in H.F. (+ ·0014). 16^h to 17^h Wave in Dec. (− 5′): 15^h to 17^h double wave in H.F. (− ·002 to + ·001), followed by fluctuations till 18^h, in Dec. (± 2′): in H.F. (± ·0005). 18^h to $19\frac{1}{2}^h$ Sharp double wave in Dec. (+ 8′ to − 12′): two successive waves in H.F. (+ ·0035) and (+ ·0016): decrease of V.F. (− ·0006). 20^h to $20\frac{1}{2}^h$ Wave in H.F. (+ ·0014). $20\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Wave in Dec. (− 8′). 21^h to 23^h Wave in H.F. (+ ·0018).

21^d 12^h to 24^h Small fluctuations in H.F. and V.F.

22^d 1^h to 12^h Small fluctuations in Dec., H.F. and V.F. $18\frac{1}{2}^h$ to 20^h Wave in Dec. (− 5′): fluctuations in H.F. (± ·001). $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Double wave in Dec. (+ 4′ to − 4′): wave in H.F. (+ ·0018), followed by waves till 23^d $0\frac{1}{2}^h$ in Dec. (+ 6′), and in H.F. (+ ·0015).

23^d 12^h to 13^h Wave in Dec. (+ 3′): small fluctuations in H.F. $20\frac{1}{2}^h$ to 22^h Two successive waves in Dec. (− 3′) and (− 6′): fluctuations in H.F. (± ·001): in V.F. small.

24^d 7^h to 24^h Small fluctuations in Dec. and H.F.

25^d $0\frac{1}{2}^h$ to 2^h Wave in Dec. (− 6′): in H.F. (− ·001): in V.F. small. 6^h to 17^h Small fluctuations in Dec., H.F. and V.F. $19\frac{1}{2}^h$ to 21^h Wave in Dec., steep at commencement (− 5′): small fluctuations in H.F. and V.F. $22\frac{1}{2}^h$ to 24^h Wave in Dec. (+ 3′): in H.F. (+ ·0014).

26^d $12\frac{1}{2}^h$ to $13\frac{1}{2}^h$ Sharp wave in Dec. (− 4′): in H.F. (− ·001).

27^d $0\frac{1}{2}^h$ to $1\frac{1}{2}^h$ Wave in Dec. (+ 3′): in H.F. (+ ·001).

29^d 17^h to 18^h Wave in Dec. (+ 3′): in H.F. $16\frac{1}{2}^h$ to $17\frac{1}{2}^h$ (+·001). 20^h to 23^h Double-crested wave in Dec. (− 6′): wave in H.F. (− ·0018).

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

October 1^d 2^h to $3\frac{1}{2}^h$ Wave in Dec. (+ 3′), followed by fluctuations till 9^h. 3^h to 9^h Long irregular wave in H.F. (+ ·003). 12^h to 16^h Small fluctuations in Dec. and H.F., with decrease of Dec. 14^h to 15^h (− 6′). $19\frac{1}{2}^h$ to 21^h Two successive waves in Dec. (− 7′) and (− 6′): in H.F. 20^h to 21^h (+ ·0022) and (+ ·001): in V.F. small.

2^d 2^h to 5^h Double wave in Dec. (+ 5′ to − 3′). 2^h to 3^h Wave in H.F. (− ·001) and 4^h to 6^h (− ·0016). 7^h to 8^h Wave in Dec. (+ 3′): in H.F. (− ·0016), followed by small fluctuations till 10^h.

3^d 15^h to 19^h Long shallow wave in Dec. (− 4′).

4^d 12^h to 14^h Fluctuations in Dec. (± 3′): in H.F. (± ·001), followed by wave in Dec. till 15^h (+ 5′) and two successive waves in H.F. till 16^h (+ ·0016) and (+ ·0016). 13^h to 17^h Wave in V.F. (+ ·0008). 17^h to 18^h Wave in Dec. (+ 4′): in H.F. (+ ·001), followed by small fluctuations till 24^h.

5^d 1^h to 3^h Wave in Dec. (− 5′) and two successive waves till 7^h (+ 9′) and (+ 8′). $5\frac{1}{2}^h$ to 7^h Double wave in H.F. (− ·0012 to + ·001): in V.F. small. 16^h to 18^h Sharp wave in Dec. (− 12′): 17^h to 18^h wave in H.F., steep at commencement (+ ·0024). 21^h to 24^h Three successive waves in Dec. (+ 4′), (+ 4′) and (+ 5′). 19^h to 24^h Fluctuations in H.F. (± ·001), with wave 23^h to 24^h (+ ·0016): small fluctuations in V.F.

6^d 1^h to $3\frac{1}{2}^h$ Wave in Dec. (+ 11′). 2^h to 3^h Increase of H.F. (+ ·0019): decrease of V.F. (− ·0004). 7^h to 13^h Small fluctuations in Dec. and H.F. 19^h to 22^h Serrated wave in Dec. (− 6′), followed by double wave (+ 4′ to − 4′) till 24^h. 19^h to $21\frac{1}{2}^h$ Double wave in H.F. (+ ·0012 to − ·0012) and wave 22^h to 23^h (+ ·0014): very small fluctuations in V.F.

7^d 19^h to 21^h Wave in Dec., steep at commencement (− 6′): in H.F. small. 7^d $23\frac{1}{2}^h$ to 8^d $0\frac{1}{2}^h$ Double wave in Dec. (+ 3′ to − 3′): wave in H.F. (+ ·0016): in V.F. (− ·0003).

8^d 5^h to 7^h Wave in Dec. (+ 4′): in H.F. (− ·001). 9^h to 15^h Small fluctuations in Dec., H.F. and V.F. 16^h to 19^h Two successive waves in Dec. (− 8′) and (− 8′): double wave in H.F. (+ ·002 to − ·002): small fluctuations in V.F.

9^d 0^h to 2^h Wave in Dec. (− 3′): in H.F. small fluctuations. 13^h to 14^h Fluctuations in Dec. (± 2′): in H.F. (± ·0008): in V.F. small. 16^h to $16\frac{1}{2}^h$ Sharp wave in H.F. (+ ·001): in Dec. small. $20\frac{1}{2}^h$ to 24^h Fluctuations in Dec. (± 2′): in H.F. and V.F. small, with wave in H.F. 22^h to 23^h (+ ·0018).

11^d 0^h to 1^h Fluctuations in Dec. (± 2′): in H.F. (± ·0005). 3^h to 4^h Wave in Dec. (+ 4′): increase of H.F. (+ ·0014), followed by small fluctuations till 7^h. 12^h to 15^h Very small fluctuations in Dec. and H.F. $17\frac{1}{2}^h$ to 18^h Sharp wave in H.F. (+ ·0014).

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October 12^d 12^h to 14^d 12^h. See Plate IV.

14^d 12^h to 24^h Small fluctuations in Dec., H.F. and V.F., with waves in H.F. $15\frac{1}{2}^h$ to 16^h (− ·001) and 18^h to 19^h (+ ·0014).

15^d 0^h to $1\frac{1}{2}^h$ Double wave in Dec. (+ 5′ to − 6′) followed by wave till $2\frac{1}{2}^h$ (− 5′). 0^h to 3^h Double wave in H.F. (+ ·003 to − ·002). 0^h to 1^h Decrease of V.F. (− ·0007), followed by fluctuations till 10^h in Dec. (± 2′) : in H.F. (± ·0005) : in V.F. small. $14\frac{1}{2}^h$ to 17^h Wave in H.F. (− ·0022). $15\frac{1}{2}^h$ to $16\frac{1}{2}^h$ Decrease of Dec. (− 5′) : small fluctuations in V.F. $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Wave in H.F. (− ·0018). $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Sharp wave in Dec. (− 16′) : double wave in H.F. (− ·0022 to + ·0022), followed till midnight by fluctuations in Dec. (± 5′) : in H.F. (± ·001) : in V.F. (± ·0003).

16^d 2^h to 4^h Fluctuations in Dec. (± 2′) : in H.F. (± ·0006). 9^h to 11^h Wave in H.F. (− ·003), with small superposed fluctuations : small fluctuations also in Dec. 19^h to 22^h Irregular wave in Dec. (− 16′). $19\frac{1}{2}^h$ to 20^h Sharp wave in H.F. (− ·0016). 21^h to $21\frac{1}{2}^h$ Wave in H.F. (− ·0012) : small fluctuations in V.F. 22^h to 24^h Two successive waves in Dec. (− 4′) and (− 7′) : wave in H.F. (+ ·0018) : small fluctuations in V.F.

17^d 0^h to 3^h Double wave in Dec. (+ 7′ to − 11′). 0^h to 1^h Sharp wave in H.F. (+ ·0048), followed by fluctuations till 3^h (± ·001) : wave in V.F. (− ·0008). 3^h to 15^h Fluctuations in Dec. (± 2′) : in H.F. (± ·0005) : in V.F. small, with wave in H.F. 9^h to $10\frac{1}{2}^h$ (− ·0038) : sharp wave in Dec. $12\frac{1}{2}^h$ to 13^h (+ 8′). 17^h to 19^h Two successive waves in Dec. (− 13′) and (− 9′). $16\frac{1}{2}^h$ to $17\frac{1}{2}^h$ Wave in H.F. (− ·002). $17\frac{1}{2}^h$ to 19^h Double-crested wave in H.F. (− ·003), followed by fluctuations till 23^h in Dec. (± 3′) : in H.F. (± ·0006) : in V.F. small.

18^d 7^h to 17^h Small fluctuations in Dec. and H.F., with wave in H.F. 8^h to 10^h (− ·0016).

18^d $23\frac{1}{2}^h$ to 19^d $0\frac{1}{2}^h$ Sharp wave in Dec. (+ 5′), followed by two successive waves till 19^d 4^h (− 7′) and (− 4′). 19^d 0^h to 2^h Wave in H.F. (+ ·0024) : in V.F. (− ·0007).

19^d 8^h to 16^h Small fluctuations in Dec. and H.F. 19^h to 20^h Sharp wave in Dec. (− 7′) : in H.F. (+ ·0012), followed by fluctuations till 24^h in Dec. (± 2′) : in H.F. small.

20^d 0^h to 6^h Small occasional fluctuations in Dec. and H.F., with wave in Dec. 3^h to 4^h (+ 4′). 11^h to 15^h Fluctuations in Dec. (± 2′) : in H.F. small. $18\frac{1}{2}^h$ to 20^h Wave in Dec., steep at commencement (− 13′) : in H.F. (+ ·0024).

21^d 7^h to 16^h Small occasional fluctuations in Dec. and H.F. 17^h to 18^h Wave in Dec. (− 3′) : in H.F. (− ·0014), followed by small occasional fluctuations till 24^h.

22^d 19^h to 20^h Sharp wave in Dec. (− 5′) : in H.F. (− ·001) : in V.F. small.

23^d 2^h to 5^h Small fluctuations in Dec. and H.F. 7^h to 8^h Fluctuations in Dec. (± 2′) : in H.F. (± ·0005). 17^h to 20^h Small occasional fluctuations in Dec. and H.F., with wave in H.F. $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ (− ·001). 21^h to $22\frac{1}{2}^h$ Wave in Dec. (− 7′) : in H.F. (+ ·0016).

24^d 16^h to $18\frac{1}{2}^h$ Wave in Dec. (− 7′).

26^d 10^h to 18^h Small occasional fluctuations in Dec. and H.F., with wave 13^h to 14^h in Dec. (− 5′) : in H.F. (− ·0016). 18^h to 22^h Two successive waves in Dec. (− 7′) and (− 14′), the latter steep at commencement : wave in H.F. 18^h to 19^h (− ·001). 20^h to 22^h Two successive waves in H.F. (+ ·0024) and (+ ·0026), the latter double-crested. 21^h to 22^h Decrease of V.F. (− ·0006). $22\frac{1}{2}^h$ to 24^h Wave in Dec. (− 5′) : fluctuations in H.F. (± ·0006).

27^d 2^h to $2\frac{1}{2}^h$ Sharp wave in Dec. (− 3′) : in H.F. (− ·001). 4^h to 6^h Wave in Dec. (+ 7′) : in H.F. and V.F. small. 12^h to $15\frac{1}{2}^h$ Fluctuations in Dec. (± 3′), followed by a succession of sharp waves till $18\frac{1}{2}^h$ (− 6′), (− 13′) and (− 19′), and by long shallow wave till $20\frac{1}{2}^h$ (− 4′). $12\frac{1}{2}^h$ to 15^h Double wave in H.F. (− ·002 to + ·0012), followed by wave till 16^h (− ·0016), and double wave till 17^h (− ·0018 to + ·0024), succeeded by fluctuations (± ·001) till 18^h. $16\frac{1}{2}^h$ to $17\frac{1}{2}^h$ Sharp wave in V.F. (+ ·0006).

28^d 9^h to 18^h Fluctuations in Dec. (± 3′) : in H.F. (± ·0005), with double wave 12^h to $14\frac{1}{2}^h$ (+ ·0016 to − ·0014). $18\frac{1}{2}^h$ to 21^h Sharp and somewhat irregular wave in Dec. (− 23′) : decrease of H.F. $18\frac{1}{2}^h$ to 19^h (− ·0025), followed by fluctuations till 23^h (± ·001). 22^h to 24^h Wave in Dec. (− 18′) : double wave in H.F. (+ ·0014 to − ·002) : small occasional fluctuations in V.F.

29^d 1^h to 2^h Wave in Dec. (+ 8′) : increase of H.F. (+ ·002). $0\frac{1}{2}^h$ to $1\frac{1}{2}^h$ Wave in V.F. (− ·0005), followed by fluctuations till 11^h in Dec. (± 3′) : in H.F. (± ·001) : in V.F. small, with wave in Dec. 4^h to 5^h (+ 4′), and double wave till 7^h (+ 4′ to − 4′) : wave in H.F. 5^h to 6^h (− ·0014), 7^h to 8^h decrease (− ·003), and $9\frac{1}{2}^h$ to $10\frac{1}{2}^h$ wave (− ·0024). 15^h to 16^h Wave in Dec. (− 3′) : in H.F. (− ·001) : in V.F. small. $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Sharp wave in Dec. (− 14′) : in H.F. (− ·004) : in V.F. small. 20^h to $20\frac{1}{2}^h$ Wave in Dec. (− 4′). 21^h to 23^h Double wave in Dec. (− 6′ to + 5′) : two successive waves in H.F. (− ·0026) and (− ·003), followed by fluctuations till 24^h in Dec. (± 4′) : in H.F. (± ·0005).

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October 30d 0h to 2h Double wave in Dec. (+ 5′ to − 4′): wave in H.F. (− ·001) and 1½h to 3h (− ·0012): small fluctuations in V.F. 5½h to 8h Wave in Dec. (+ 12′): in H.F. (− ·003). 21h to 23h Two successive waves in Dec. (− 9′) and (− 4′): sharp wave in H.F. (+ ·0042): wave in V.F. (+ ·0004), followed by small fluctuations.

31d 0h to 1½h Double wave in Dec. (+ 4′ to − 3′): wave in H.F. (+ ·001), followed by fluctuations in Dec. (± 2′) till 4h: small fluctuations in V.F. 19h to 20h Decrease of Dec. (− 5′). 20½h to 22½h Double wave in Dec. (− 3′ to + 4′): decrease of H.F. (− ·0016), followed by fluctuations in Dec. (± 2′) till 24h.

November 1d 1h to 3h Wave in Dec. (+ 7′): in H.F. (+ ·001): in V.F. (− ·0003). 4½h to 9h Wave in Dec. somewhat irregular (+ 10′), followed by small fluctuations till 10h. 4½h to 6h Two successive small waves in H.F., followed by wave 6½h till 8h (− ·0014) and small fluctuations till 10h. 16h to 18½h Two successive waves in Dec. (− 4′) and (− 4′): in H.F. (− ·0012) and (− ·001): small fluctuations in V.F.

2d 5h to 9h Wave in Dec. (+ 8′), followed by small fluctuations till 11h. 5h to 7½h Wave in H.F. (− ·0018), followed by decrease till 9½h (− ·003) and small fluctuations till 11h: small fluctuations in V.F. 13h to 17h Two successive waves in H.F. (+ ·0018) and (+ ·0018), and two successive waves in V.F. (+ ·0005) and (+ ·0003). 15h to 16½h Wave in Dec. (− 9′). 22h to 23½h Fluctuations in Dec. (± 2′): wave in H.F. (+ ·0012).

3d 19h to 21h Sharp wave in Dec. (− 7′): 19½h to 20½h wave in H.F. (+ ·001).

4d 2h to 4h Wave in Dec. (+ 4′). 9h to 10h Wave in H.F. (− ·0012). 11h to 14h Small fluctuations in Dec. and H.F. 16h to 17½h Wave in Dec. (− 7′): in H.F. two successive waves 16h to 18½h (− ·0016) and (− ·001). 19h to 21h Sharp wave in Dec. (− 11′): in H.F. 20h to 21h (+ ·0012).

5d 0h to 14h Small fluctuations in Dec. and H.F., with sharp wave in Dec. 10½h to 11½h (+ 3′). 18h to 19h Small wave in Dec. and H.F.

6d 20h to 21h Wave in Dec. (− 4′).

8d 0h to 11½h Small fluctuations in Dec. and H.F., with decrease of H.F. 7h to 8h (− ·002). 11½h to 12½h Wave in Dec. (− 5′): in H.F. (+ ·0012), followed by fluctuations in Dec. (± 2′) till 15h, and wave 15h to 16h (− 8′): in H.F. by two successive waves till 16h (− ·0028) and (− ·002), the latter with superposed fluctuations (± ·0008): in V.F. small fluctuations till 15h, with wave (+ ·0004) till 16½h. 19h to 19½h Sharp wave in H.F. (− ·001): in Dec. small.

9d 12h to 11d 12h. See Plate V.

11d 12h to 13d 12h. See Plate VI.

13d 13h to 15h Wave in Dec. (− 5′): in H.F. (− ·0024). 19h to 22h Two successive waves in Dec. (− 26′) and (− 7′), the first large and steep. 18½h to 21h Double wave in H.F. (− ·0015 to + ·001): small fluctuations in V.F.

14d 22h to 24h Wave in Dec. (+ 3′): in H.F. fluctuations (± ·0005).

15d 1h to 2h Wave in Dec. (+ 4′): in H.F. (+ ·0012): in V.F. small. 4h to 12h Small fluctuations in Dec. and H.F., with wave in Dec. 9½h to 10h (+ 4′). 12h to 13h Wave in Dec. (+ 4′), followed by small fluctuations till 15h: wave in H.F. 12h to 15h (− ·0022), with superposed fluctuations (± ·0008). 19½h to 20½h Decrease of Dec. (− 9′), followed by two successive waves till 23½h (− 12′) and (− 7′). 21h to 23½h Double wave in H.F. (+ ·0042 to − ·002): wave in V.F. (− ·0005).

16d 3h to 10h Small occasional fluctuations in Dec. and H.F. 17h to 22h Two successive waves in Dec. (− 5′) and (− 9′): wave in H.F. 17h to 18½h (+ ·001), followed by double wave (− ·001 to + ·001) till 21h: very small fluctuations in V.F.

17d 0h to 3h Small fluctuations in Dec. and H.F. 18h to 22h Small fluctuations in H.F., followed by wave (− ·001). 22h to 24h Wave in Dec. (− 5′).

18d 1h to 6h Small fluctuations in Dec. and H.F., and also from 12h to 14h. 21h to 24h Wave in Dec. (− 9′): in H.F. small fluctuations.

20d 1½h to 2½h Small wave in Dec. and H.F. 12h to 16h Small fluctuations in Dec. 20h to 23h Wave in Dec. (− 8′): small fluctuations in H.F.

21d 16h to 17h Small wave in Dec. and H.F. 21h to 23h Small fluctuations in Dec. and H.F.

22d 22h to 24h Wave in Dec. (− 8′): small fluctuations in H.F.: small wave in V.F.

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November 23^d 12^h to 16^h Fluctuations in Dec. (± 3′) : in H.F. (± ·0008), with waves 12^h to 13^h in H.F. (− ·0016) and 14^h to 15^h, in Dec. (− 5′): in H.F. (+ ·0014). $15\frac{1}{2}^h$ to $17\frac{1}{2}^h$ Double wave in Dec. (+ 4′ to − 7′) : in H.F. (+ ·001 to − ·001). $18\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Two successive waves in Dec. (− 7′) and (− 3′): in H.F. (− ·0018) and (− ·001). 21^h to 22^h Fluctuations in Dec. (± 3′) : wave in H.F. (− ·0016). 22^h to 24^h Two successive waves in Dec. (− 5′ and − 13′). 23^h to 24^h Wave in H.F. (+ ·0036).

24^d 1^h to 10^h Fluctuations in Dec. (± 2′) : in H.F. (± ·001) : in V.F. (± ·0003), with wave in Dec. 1^h to 2^h (− 4′). 3^h to $3\frac{1}{2}^h$ Increase of Dec. (+ 10′), wave $4\frac{1}{2}^h$ to $6\frac{1}{2}^h$ (+ 8′), 8^h to 9^h (+ 4′), in H.F. waves 5^h to $6\frac{1}{2}^h$ (− ·002), 7^h to 10^h (− ·003). 11^h to 14^h Fluctuations in Dec. (± 2′). 11^h to $13\frac{1}{2}^h$ Wave in H.F. (− ·0034). $14\frac{1}{2}^h$ to 16^h Wave in Dec. (− 13′) : double wave in H.F. (− ·0028 to + ·002). $14\frac{1}{2}^h$ to 17^h Wave in V.F. (+ ·0005). $16\frac{1}{2}^h$ to 17^h Sharp double-crested wave in Dec. (− 14′) : sharp wave in H.F. (+ ·0054), followed in Dec., H.F. and V.F. by small fluctuations till $18\frac{1}{2}^h$. $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Wave in Dec. (− 10′) : in H.F. (+ ·0024), followed by small fluctuations in Dec., H.F. and V.F. till 22^h. 23^h to 24^h Wave in Dec. (+ 5′) : in H.F. small fluctuations.

25^d $0\frac{1}{2}^h$ to $1\frac{1}{2}^h$ Wave in H.F. (− ·0012), followed by small fluctuations in Dec., H.F. and V.F. till 23^h.

26^d 21^h to 23^h Two successive waves in Dec. (− 4′) and (− 8′) : irregular wave in H.F. (+ ·0014) : small fluctuations in V.F.

27^d 0^h to 1^h Wave in Dec. (+ 5′) : in H.F. (+ ·001) : decrease of V.F. (− ·0003). $1\frac{1}{2}^h$ to $2\frac{1}{2}^h$ Wave in Dec. (+ 4′) : in H.F. small. 4^h to 10^h Small occasional fluctuations in Dec. and H.F. $17\frac{1}{2}^h$ to 19^h Wave in Dec. (− 5′) : in H.F. (− ·0014) : small fluctuations in V.F. 20^h to 23^h Two successive waves in Dec. (− 13′) and (− 5′). 20^h to 22^h in H.F. (+ ·0014) and (+ ·0014), followed by small fluctuations till 23^h. 21^h to 23^h Wave in V.F. (− ·0004).

28^d $0\frac{1}{2}^h$ to 15^h Small fluctuations in Dec. and H.F., with wave in Dec. $4\frac{1}{2}^h$ to $6\frac{1}{2}^h$ (+ 4′). 5^h to 9^h Long shallow wave in H.F. (+ ·0014). 16^h to 18^h Wave in Dec. (− 8′) : in H.F. (+ ·0014). $20\frac{1}{2}^h$ to 22^h Wave in Dec. (− 7′) : in H.F. (+ ·002).

29^d 1^h to 4^h Two successive waves in Dec. (+ 5′) and (+ 4′). 1^h to 3^h Wave in H.F. (+ ·0014) and wave in V.F. (− ·0003), followed in Dec. and H.F. by small fluctuations till 17^h. 13^h to 15^h Wave in Dec. (+ 4′). $17\frac{1}{2}^h$ to 19^h Sharp wave in Dec. (− 10′) : in H.F. double wave (− ·001 to + ·0014), followed by small fluctuations in both till $22\frac{1}{2}^h$. $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (+ 3′). $22\frac{1}{2}^h$ to 24^h Two successive waves in H.F. (+ ·0016) and (+ ·0024).

30^d $16\frac{1}{2}^h$ to 18^h Wave in Dec. (− 10′) : in H.F. (− ·0016).

December 1^d 0^h to $1\frac{1}{2}^h$ Wave in Dec. (+ 3′) : in H.F. (− ·001) : in V.F. small. 18^h to 22^h Small fluctuations in Dec., H.F. and V.F.

2^d 22^h to 24^h Small fluctuations in H.F.

3^d 4^h to 6^h Fluctuations in Dec. (± 2′) : 4^h to $5\frac{1}{2}^h$ wave in H.F. (+ ·001) : 20^h to $20\frac{1}{2}^h$ wave in Dec. (− 3′) : in H.F. small.

4^d 0^h to 4^h Small fluctuations in Dec. and H.F.

5^d $20\frac{1}{2}^h$ to 22^h Very small fluctuations in Dec. and H.F.

7^d 7^h to 20^h Rapid fluctuations in Dec. (± 3′) : in H.F. (± ·0012). 20^h to 22^h Wave in Dec. (− 21′) : in H.F. (+ ·0044), followed by fluctuations till midnight : small fluctuations throughout in V.F.

8^d 0^h to $1\frac{1}{2}^h$ Double wave in Dec. (+ 11′ to − 9′) : double wave in H.F. (+ ·002 to − ·0018) : wave in V.F. (− ·001). $1\frac{1}{2}^h$ to 16^h Small rapid fluctuations in Dec., H.F. and V.F., with waves 13^h to 14^h in Dec. (+ 7′) : 13^h to 15^h in H.F. (− ·003). 21^h to 22^h Wave in Dec. (+ 8′) : in H.F. (+ ·002).

8^d 23^h to 9^d 1^h Double wave in Dec. (− 5′ to + 4′), and double wave in H.F. (− ·0012 to + ·001), followed by small fluctuations in Dec., H.F. and V.F.

9^d $18\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Two successive waves in Dec. (− 5′) and (− 13′) : in H.F. (+ ·001) and (+ ·005) : 20^h to 21^h decrease of V.F. (− ·0005). $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (+ 6′) : in H.F. (+ ·0016) : decrease of V.F. (− ·0004).

10^d 0^h to 15^h Small fluctuations in Dec. and H.F. 15^h to 17^h Wave in Dec. (− 7′) : in H.F. (+ ·0014). $18\frac{1}{2}^h$ to 20^h Three successive waves in Dec. (− 8′), (− 4′) and (− 8′) : double wave in H.F. (+ ·002 to − ·0028), latter part steep and rapid, followed by small fluctuations in H.F. till midnight. $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (+ 6′) : small fluctuations also shown in V.F.

11^d 0^h to 5^h Small fluctuations in Dec. and H.F.: 3^h to 4^h wave in Dec. (+ 4′). $15\frac{1}{2}^h$ to 17^h Wave in Dec. (− 7′) : in H.F. (− ·0028). 18^h to 19^h Sharp wave in Dec. (− 5′) : in H.F. (+ ·0016).

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December 12d 17h to 19h Wave in Dec. (− 13′): double wave in H.F. (− ·001 to + ·001): small fluctuations in V.F.

13d 22h to 24h Two successive waves in Dec. (+ 5′) and (+ 3′). 22h to 23½h Double wave in H.F. (+ ·0014 to − ·001).

15d 0h to 14h Small occasional fluctuations in Dec. and H.F. 12h to 13h Wave in H.F. (− ·001). 12½h to 15h Shallow wave in Dec. (+ 4′).

17d 16h to 18h Wave in H.F. (− ·0014). 20h to 22h Wave in Dec. (− 3′): in H.F. small.

18d 17h to 22h Fluctuations in Dec. (± 3′): in H.F. (± ·001).

19d 21h to 22h Wave in H.F. (+ ·001).

20d 0h to 4h Small fluctuations in Dec. and H.F.

21d 12h to 19h Fluctuations in Dec., H.F. and V.F., with waves 13h to 14h in Dec. (+ 5′), and 16½h to 18h in H.F. (− ·0012). 19½h to 21h Double wave in Dec. (+ 3′ to − 8′). 21½h to 23½h Two successive waves (+ 3′) and (+ 4′). 20½h to 21½h Wave in H.F. (+ ·0018), followed by fluctuations (± ·001) till 23h.

22d 0h to 2h Wave in Dec. (+ 6′): in H.F. (+ ·001): decrease of V.F. (− ·0006). 17½h to 18½h Wave in H.F. (− ·0014), followed by small fluctuations till 20½h. 18½h to 20½h Wave in Dec. (− 5′). 22h to 23½h Wave in Dec. (− 6′): in H.F. (+ ·0026).

23d 1h to 3h Double wave in Dec. (+ 4′ to − 3′): small fluctuations in H.F.: decrease of V.F. (− ·0003). 8h to 10½h Wave in Dec. (+ 4′): small fluctuations in H.F. 18h to 21h Irregular wave in Dec. (− 8′): wave in H.F. (− ·002), followed by sharp wave till 21½h in Dec. (− 4′): in H.F. (+ ·0016). 22½h to 23h Wave in Dec. (+ 4′): in H.F. (+ ·0014).

24d 0h to 13h Small occasional fluctuations in Dec. and H.F., with wave in Dec. 2½h to 3½h (+ 4′): in H.F. (+ ·0012). 13½h to 14½h Double wave in Dec. (+ 4′ to − 6′), and again 15h to 16h (+ 5′ to − 5′). 13h to 15½h Rapid fluctuations in H.F. (± ·001). 15½h to 16h Increase of H.F. (+ ·0028). 13h to 17h Wave in V.F. (+ ·0006). 17h to 18½h Sharp wave in Dec. (− 15′): in H.F. (− ·0018). 17½h to 19h Wave in V.F. (+ ·0003). 19½h to 21h Wave in Dec. (− 5′): in H.F. (+ ·0014). 22h to 23h Wave in Dec. (+ 3′): in H.F. (+ ·0012).

25d 13½h to 14½h Decrease of Dec. (− 5′): wave in H.F. (− ·001). 22h to 24h Wave in Dec. (− 4′): in H.F. (+ ·001).

26d 23½h to 27d 1h Wave in Dec. (+ 5′): in H.F. (+ ·0014), followed by small fluctuations till 27d 5h. 27d 21h to 22h Wave in Dec. (− 3′).

30d 17h to 18h Wave in Dec. (− 4′): in H.F. (− ·001). 21h to 23h Small fluctuations in Dec. and H.F.

EXPLANATION OF THE PLATES.

The magnetic motions figured on the Plates are—

(1.) Those for days of great disturbance—None in 1895.

(2.) Those for days of lesser disturbance—February 8–9, 9–10, 15–16, March 8–9, 13–14, 14–15, April 11–12, May 10–11, 29, September 30, October 12–13, 13–14, November 9–10, 10–11, 11–12, 12–13.

(3.) Those for four quiet days, January 27, April 22, August 22, November 7, which are given as types of the ordinary diurnal movement at four seasons of the year.

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

The magnetic declination, horizontal force, and vertical force, are indicated by the letters D., H., and V. respectively; the declination (west) is expressed in minutes of arc, the units for horizontal and vertical force are ·00001 of the whole horizontal and vertical forces respectively, the corresponding scales being given on the sides of each diagram. Equal changes of amplitude in the several registers correspond nearly to equal changes of absolute magnetic force, 0·001 of a C. G. S. unit being represented by $0^{\text{in}}\cdot80 = \overset{\text{mm.}}{20\cdot4}$ in the declination curve, by $0^{\text{in}}\cdot75 = \overset{\text{mm.}}{19\cdot0}$ in the horizontal force curve, and by $0^{\text{in}}\cdot79 = \overset{\text{mm.}}{20\cdot0}$ in the vertical force curve.

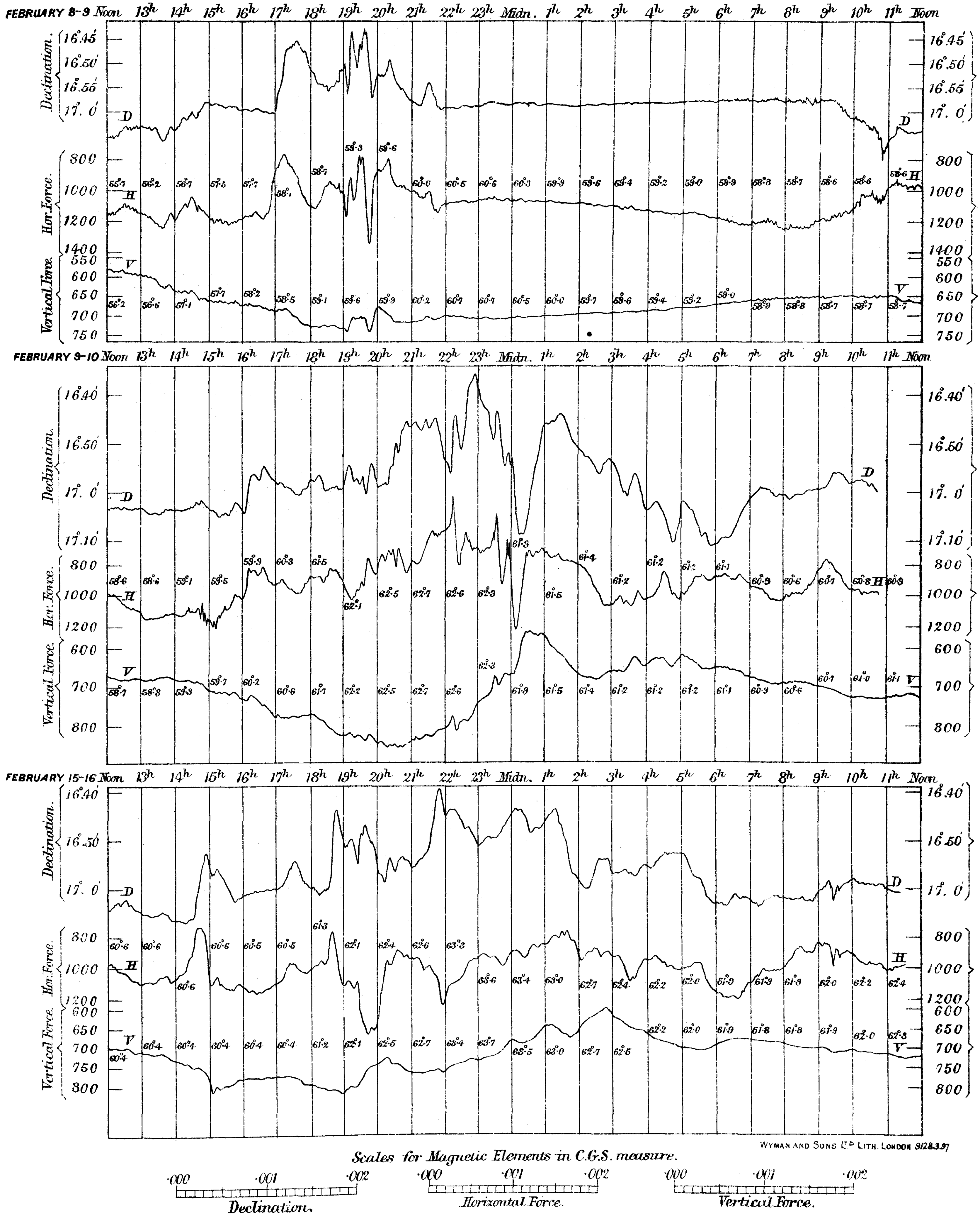
Downward motion indicates increase of declination and of horizontal and vertical force.

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, 1895.



Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1895.

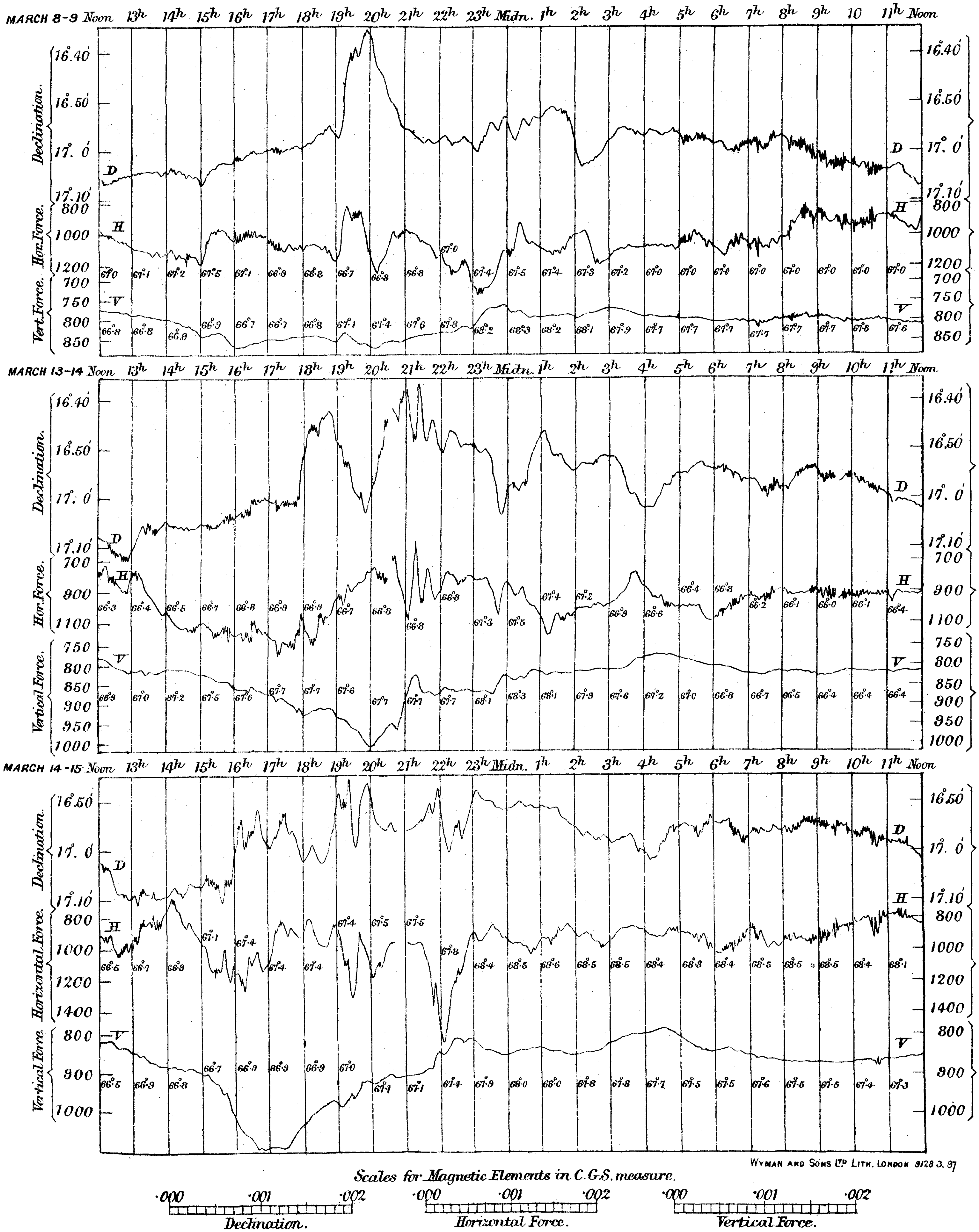


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Plate III.

Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1895.

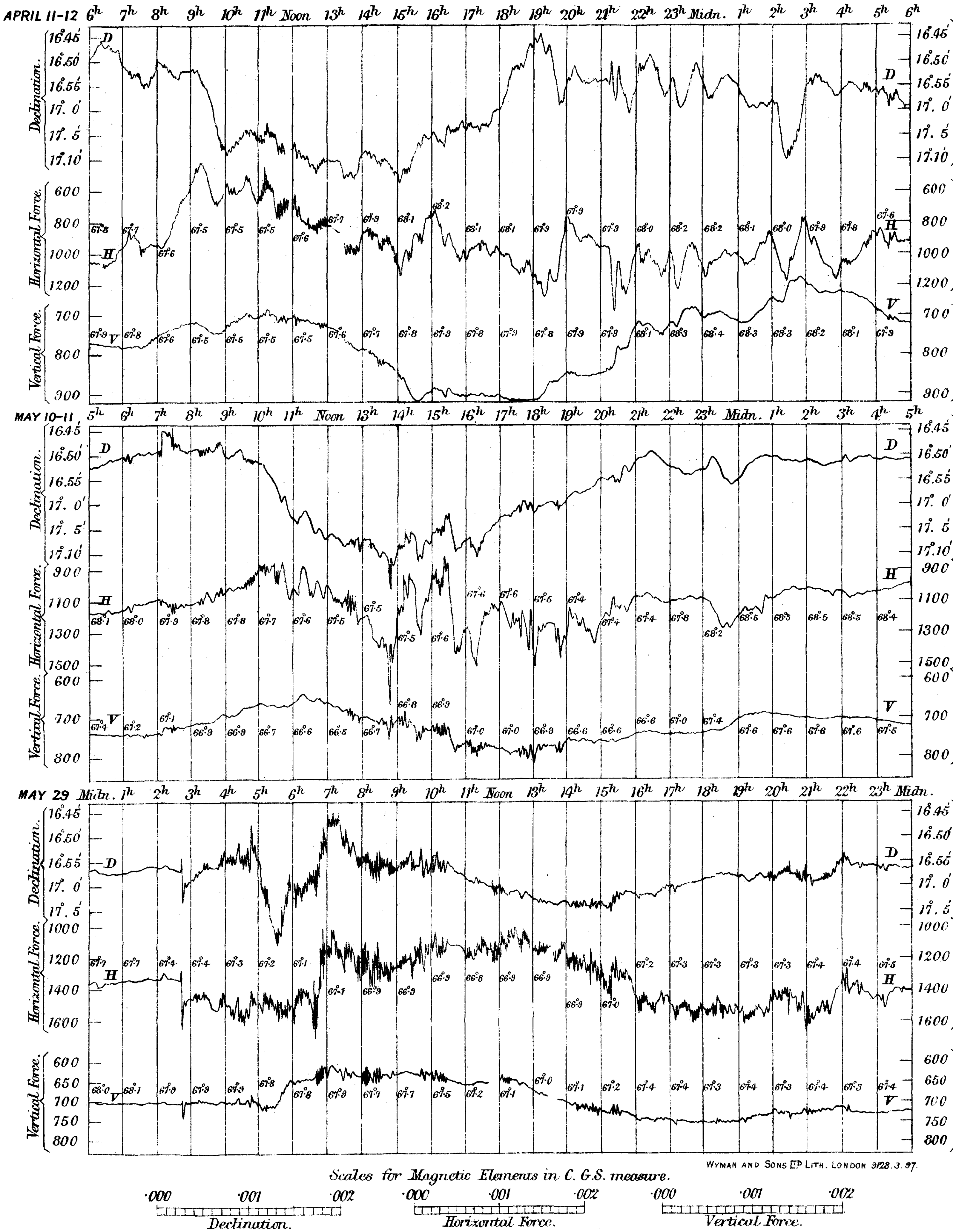

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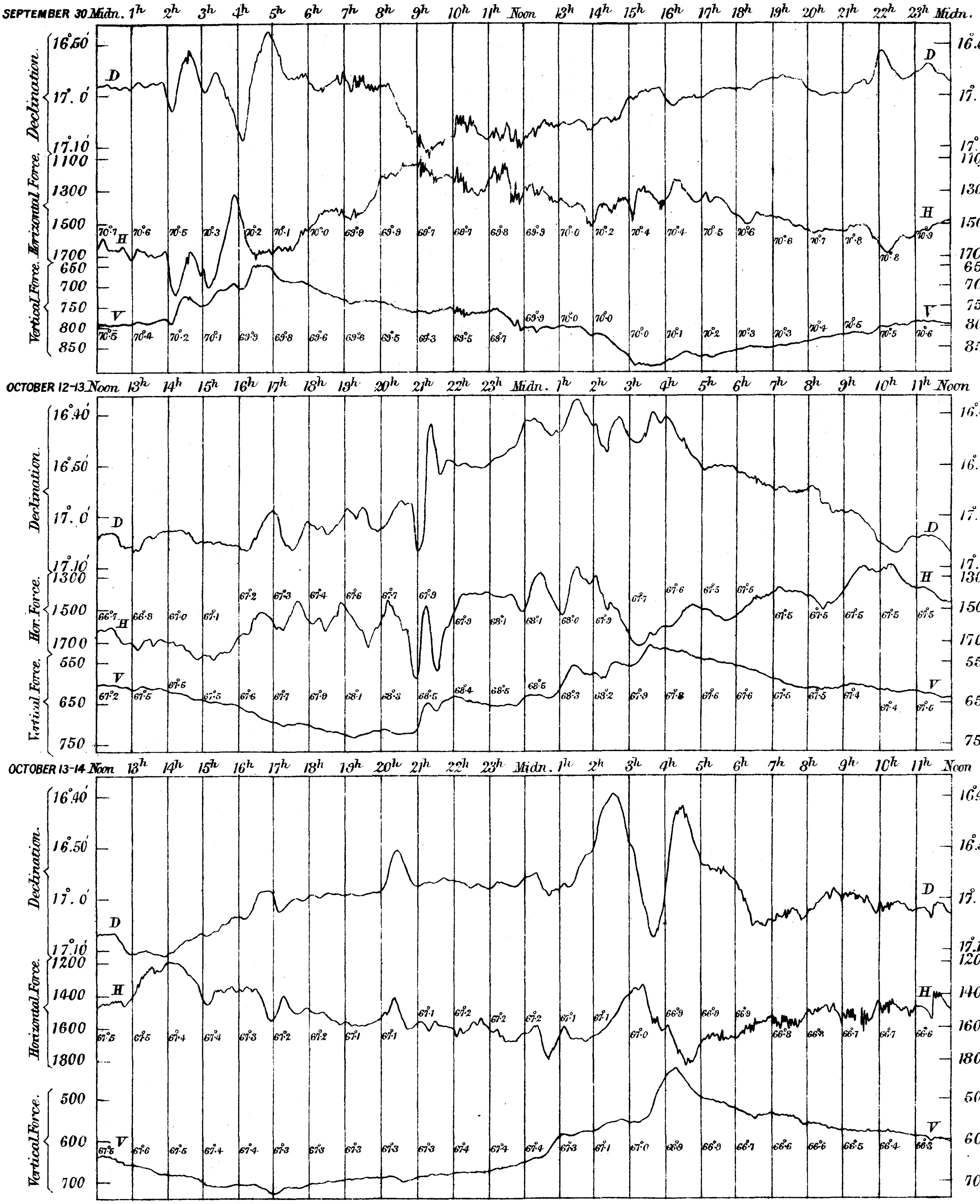
Plate IV.

Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1895.



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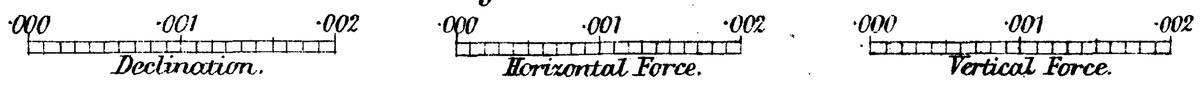
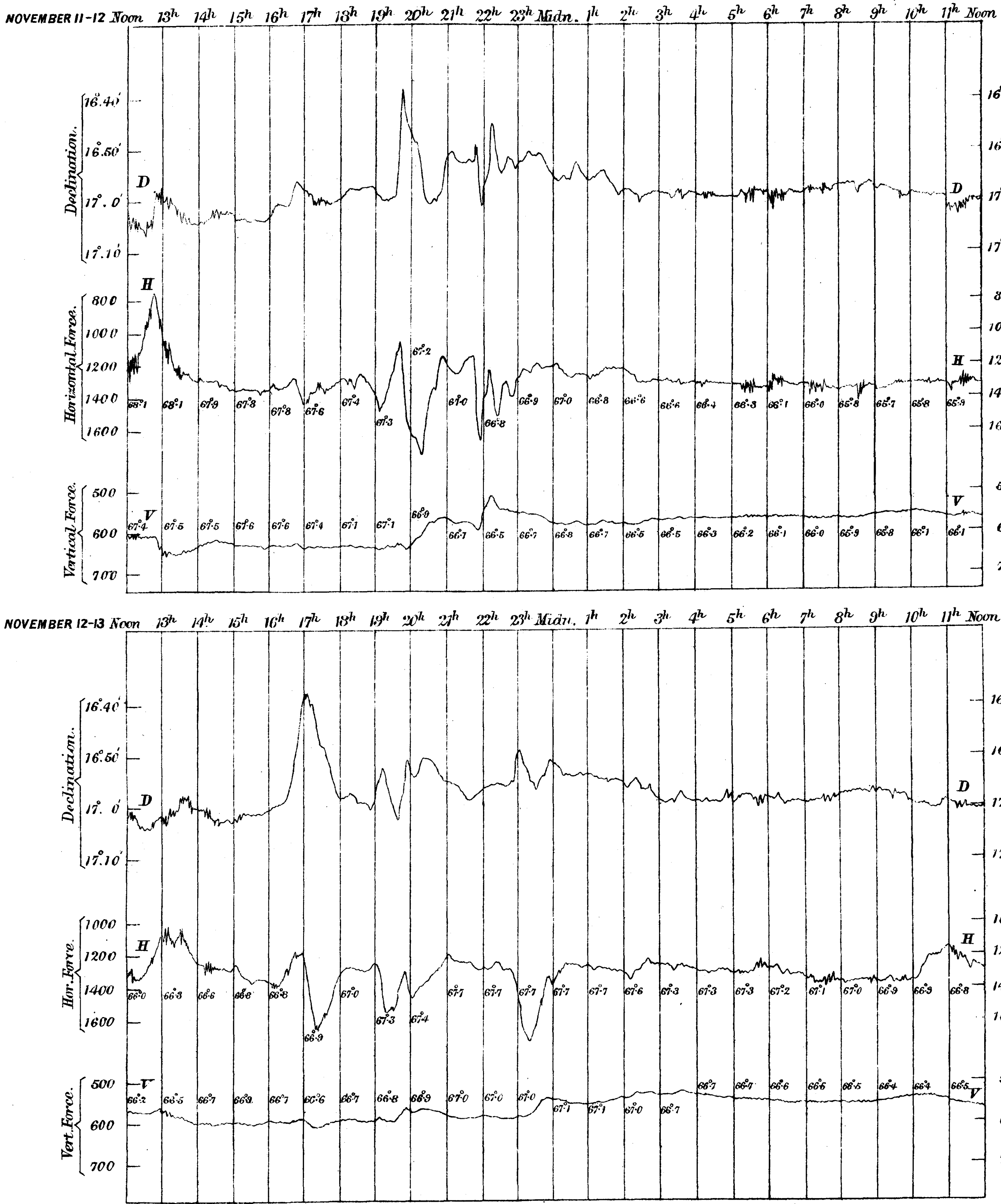
Scales for Magnetic Elements in C.G.S. measure.



Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1895.



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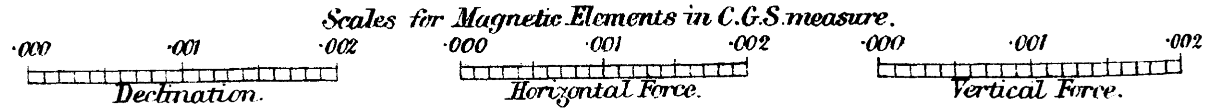
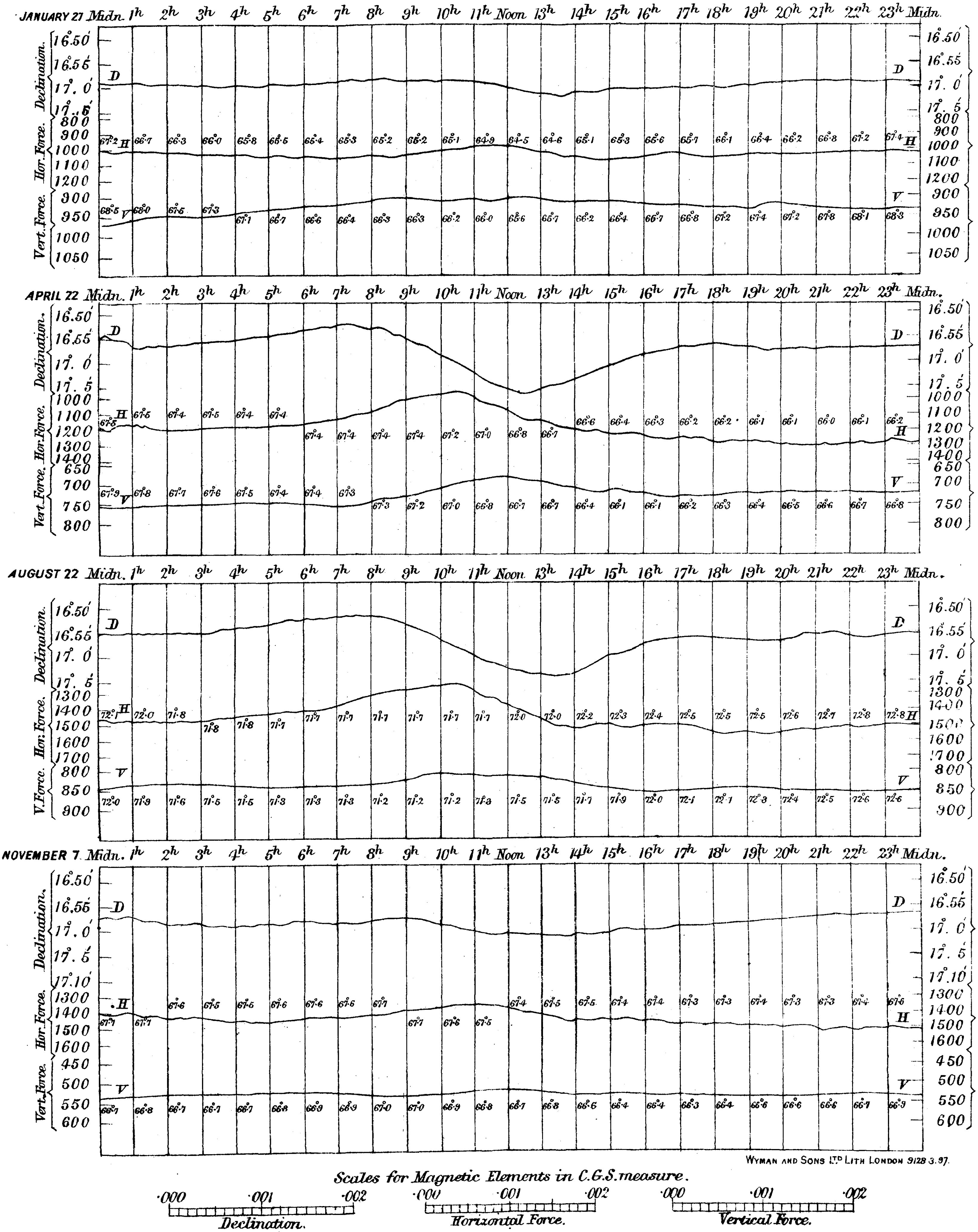
Scales for Magnetic Elements in C.G.S. measure.



Types of Magnetic Diurnal Variations at four seasons of the year, recorded at the Royal Observatory, Greenwich, 1895.



ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

METEOROLOGICAL OBSERVATIONS.

1895.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Jan. 1	...	29·769	36·0	29·2	6·8	32·4	− 6·1	30·9	27·7	4·7	8·8	1·8	82	48·8	26·2	0·000	0·7	sP : ssP : ssP
2	...	29·678	40·6	29·6	11·0	35·2	− 3·3	33·4	30·5	4·7	7·4	1·4	83	51·1	27·4	0·051	2·3	sP, sN : sP : sP
3	In Equator	29·356	35·4	32·3	3·1	34·1	− 4·4	33·0	31·1	3·0	4·4	1·1	88	37·0	29·8	0·128	0·0	vP, vN : ssP : vP, vN
4	First Quarter	29·698	37·6	33·4	4·2	35·5	− 2·9	33·6	30·7	4·8	8·6	2·2	82	47·6	31·3	0·008	1·0	vP, ssN : sP : sP
5	...	29·768	36·9	31·6	5·3	35·4	− 2·9	34·0	31·8	3·6	4·3	2·1	87	46·2	30·5	0·006	3·0	mP : ssP
6	...	29·610	31·6	28·2	3·4	29·7	− 8·5	29·4	28·6	1·1	2·9	0·0	94	35·0	27·0	0·000	0·0	vP
7	...	29·517	33·1	28·2	4·9	31·0	− 7·1	30·2	28·0	3·0	4·8	0·3	87	46·7	27·0	0·000	0·0	sP : ssP : ssP
8	...	29·648	36·6	30·9	5·7	33·1	− 4·9	31·9	29·6	3·5	6·8	1·3	87	50·4	28·7	0·004	0·0	sP, wN : ssP : ssP
9	Greatest Declination N.	29·705	33·7	30·2	3·5	32·3	− 5·6	31·4	29·5	2·8	3·5	1·5	89	35·6	27·0	0·004	0·0	sP : vP : ssP
10	...	29·742	31·5	24·7	6·8	28·2	− 9·7	27·7	25·8	2·4	5·1	0·0	90	51·9	24·0	0·000	0·0	ssP
11	Full	29·682	28·7	25·0	3·7	27·6	−10·3	27·3	26·1	1·5	2·7	0·6	95	31·0	24·2	0·000	0·0	sP : ssP
12	Perigee	29·386	32·2	23·0	9·2	27·5	−10·4	26·2	20·6	6·9	12·7	0·0	75	53·0	23·0	0·008	0·0	ssP : sP : vP
13	...	28·901	43·4	27·4	16·0	35·3	− 2·7	33·9	31·7	3·6	11·0	1·0	87	61·4	27·2	0·104	2·0	vN, vP : wN, vP
14	...	28·852	43·1	37·3	5·8	39·4	+ 1·2	38·1	36·4	3·0	6·0	0·9	90	45·7	32·2	0·082	10·0	wP, vN : vN, sP : vP, vN
15	In Equator	28·919	41·1	37·8	3·3	39·5	+ 1·2	38·7	37·7	1·8	3·5	0·7	94	45·9	34·3	0·000	3·0	vP : vP, vN : vP, vN
16	...	28·893	44·8	38·2	6·6	41·9	+ 3·4	40·9	39·7	2·2	3·1	0·9	93	48·4	34·4	0·136	0·0	mP : vP, vN : vP, vN
17	Last Quarter	29·006	44·7	37·9	6·8	42·0	+ 3·5	40·0	37·5	4·5	9·0	2·0	85	59·5	34·5	0·030	0·0	vN, vP : vP : vN, sP
18	...	29·550	45·9	34·0	11·9	38·9	+ 0·4	37·2	34·9	4·0	7·3	1·4	87	81·5	30·8	0·000	0·0	sP
19	...	29·564	45·1	36·7	8·4	41·7	+ 3·2	40·7	39·5	2·2	5·1	0·2	93	50·7	32·1	0·370	3·8	vP, sN : vP, vN : vN, vP
20	...	29·317	53·8	42·0	11·8	47·5	+ 9·1	46·2	44·8	2·7	5·4	0·4	91	80·2	39·8	0·132	5·2	vP, vN : vP, vN : mP
21	...	29·499	44·8	32·0	12·8	38·3	0·0	37·0	35·2	3·1	7·2	0·7	89	44·8	29·6	0·000	0·0	mP : vP, mN : sP
22	Greatest Declination S.	29·717	35·0	29·0	6·0	31·9	− 6·4	30·8	28·3	3·6	6·4	1·1	85	36·5	25·4	0·178	0·0	sP : vP, vN : ssP
23	...	29·499	39·3	29·0	10·3	34·1	− 4·3	31·5	27·0	7·1	12·5	0·5	74	66·1	25·4	0·074	1·2	vP, vN : vP, vN : ssP
24	...	29·203	42·3	27·2	15·1	36·1	− 2·4	34·1	31·1	5·0	7·8	2·8	82	65·4	26·2	0·107	3·8	vP : vP, vN : vP, vN
25	New	29·320	38·0	26·3	11·7	34·2	− 4·6	31·9	28·0	6·2	9·3	2·5	77	51·2	26·3	0·049	0·0	vP, vN : vP, vN : sP
26	Apogee	29·546	35·2	23·4	11·8	28·8	−10·2	27·5	22·7	6·1	10·3	0·0	78	60·1	23·0	0·000	0·0	mP : ssP : sP
27	...	29·628	34·0	22·2	11·8	26·8	−12·5	25·6	20·1	6·7	12·5	0·0	76	72·5	21·7	0·006	0·5	sP : sP : vP
28	...	29·860	30·1	24·7	5·4	27·7	−11·8	26·2	19·9	7·8	13·4	2·1	72	42·6	21·1	0·059	1·5	vP : ssP : ssP
29	...	30·083	29·8	20·3	9·5	25·2	−14·5	23·7	15·6	9·6	12·0	6·7	65	35·0	20·3	0·000	0·0	... : ... : ssP
30	In Equator	30·245	32·0	20·6	11·4	27·2	−12·6	25·6	18·5	8·7	11·0	3·7	68	61·0	20·6	0·019	0·0	vP : ... : ssP
31	...	29·992	33·1	23·4	9·7	27·3	−12·5	25·8	19·3	8·0	11·3	2·0	71	55·9	23·0	0·062	0·0	vP : vP, vN : vP
Means	...	29·521	37·7	29·5	8·2	33·7	− 4·8	32·4	29·3	4·4	7·6	1·4	83·7	51·6	27·5	Sum 1·617	1·2	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·521, being 0in·257 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 53°·8 on January 20 ; the lowest in the month was 20°·3 on January 29 ; and the range was 33°·5.
The mean of all the highest daily readings in the month was 37°·7, being 5°·4 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 29°·5, being 4°·1 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 8°·2, being 1°·3 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 33°·7, being 4°·8 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Jan. 1	0·2	7·9	NNW : N	N : NNW	4·9	0·0	0·54	354	10, slt.-sn : 3, li.-cl	4, li.-cl : 2, li.-cl : 10
2	0·0	7·9	W : WSW	WNW : WSW	2·8	0·0	0·25	339	10 : 10, sn : 6, cu.-s, li.-cl	1, th.-cl : 1, th.-cl : 0
3	0·0	7·9	W : NW : N	N	5·3	0·0	0·30	321	10, sl, sn, r : 10 : p.-cl	v, th.-cl : 10, slt.-sn
4	0·0	7·9	NNE : N	N	5·1	0·0	0·59	425	10, slt.-sn : 10, slt.-sn : 10	10 : 10
5	0·0	7·9	N	N	7·0	0·0	0·63	375	10 : 10 : 10, oc.-slt.-r, slt.-sn	10, oc.-sn : 10
6	0·0	8·0	NNE : Calm	SW : Calm	0·0	0·0	0·00	72	10 : 10, f, glm	10, tk.-f : 10, tk.-f : 10, f
7	0·0	8·0	NE : NNE	N	1·6	0·0	0·07	197	10, f : 10, slt.-sn	p.-cl : 8, th.-cl, li.-sc, lu.-ha
8	0·5	8·0	N	N	2·0	0·0	0·10	261	v : 10, sn : 10	v, li.-cl : v, th.-cl : 10, li.-cl, lu.-co
9	0·0	8·1	N : NNE : NE	NNE : N : NNW	0·5	0·0	0·00	126	10, oc.-sn : 10, oc.-sn : 10, glm	10, glm : 10, glm, slt.-sn : 8, th.-cl, lu.-ha
10	1·1	8·1	N : NNW	N : NNE	0·0	0·0	0·00	99	p.-cl, ho.-fr : 0, m : 0, h	3, li.-cl, slt.-h : 10
11	0·0	8·1	N : NNW	Variable : Calm	0·0	0·0	0·00	104	10, f : 10	10 : 10
12	0·0	8·2	E : ESE : SE	E : ESE	5·5	0·0	0·41	280	10 : 10 : v, cu.-s, th.-cl	p.-cl : 10 : 10, sn
13	0·6	8·2	E : ESE : SSE	S : SSE : SE	13·0	0·0	...	378	10, sn, w : 10	v, li.-sh : 10, oc.-r
14	0·1	8·2	SE	S : SSE : SE	4·7	0·0	...	279	v : 10, fq.-th.-r	v, oc.-slt.-r : 10 : 10, r
15	0·0	8·3	SE	SSE : SE	1·7	0·0	...	199	v : 10	p.-cl, oc.-slt.-r : 10, oc.-slt.-r : v, li.-cl
16	0·0	8·3	SSE : S	S	2·8	0·0	...	223	v, lu.-ha : p.-cl : v, oc.-shs	p.-cl, fq.-th.-r : 10, oc.-slt.-r
17	0·8	8·3	S : SSW : SW	SW	6·0	0·0	...	451	v, slt.-r : p.-cl : 10	v, oc.-r : 3, li.-cl : v, shs.-r
18	3·2	8·4	SW : SSW	SW : SSW : S	2·9	0·0	...	308	3, li.-cl, ho.-fr : 2, th.-cl : v, li.-cl	v, li.-cl : 0, d
19	0·0	8·4	S : SSE	SSE : SE : ESE	2·0	0·0	0·07	238	10 : 10	10, slt.-r : 10, c.-r
20	1·6	8·5	S : SSW	SSW : SSE	3·1	0·0	0·11	278	10 : 10, r : v, ci.-cu, li.-cl	v, oc.-slt.-r : 0 : v, li.-cl
21	0·0	8·5	N : NNE	N : NNW : NW	7·1	0·0	0·66	445	10, w : 10, w	10, sc : v, li.-cl : 0
22	0·0	8·6	WNW : WSW : SSW	SW : NW	2·0	0·0	0·09	270	0, ho.-fr : 10, sn	10 : v, th.-cl : 0, slt.-h
23	2·7	8·6	SSW : WSW : NW	NW : NNW	15·5	0·0	1·25	559	v, fr : 10, shs.-r : v, sh.-r, sq, sl, sn, l, t, gt.-glm	0, st.-w : 0
24	1·7	8·7	SW	WSW : WNW	9·0	0·0	0·77	542	0 : 10 : 10, oc.-r, hy.-sh	v, oc.-r, w : 10, oc.-slt.-r : 10, w
25	0·0	8·7	NNW : NW	NW : WNW	7·0	0·0	0·53	468	10, r : 10	10, oc.-sn, sq, glm : 0, f
26	0·4	8·8	WNW : NW : N	N : Calm	1·7	0·0	0·09	201	0, ho.-fr : 4, li.-cl	v, li.-cl : 0, f, fr
27	3·9	8·8	Variable : Calm	S : SSW : SW	0·7	0·0	0·02	131	0, ho.-fr : 0, f	0 : v
28	0·0	8·9	SW : WNW : NNW	NNW : NW	5·2	0·0	0·26	318	10, oc.-sn : 10, oc.-sn	3, li.-cl : 0 : 0, fr
29	0·0	8·9	SW : SSW	SSW : NE	1·1	0·0	0·01	190	0, fr : 10, slt.-f : 10	10, slt.-f : 4, li.-cl : 0, fr
30	0·8	9·0	NE : NNE	NNE	5·5	0·0	0·55	435	v : v, oc.-sn	8, li.-cl, slt.-sn : 0
31	0·1	9·0	N	N : NNE	11·5	0·0	1·03	516	0 : 0 : v, oc.-sn, so.-ha, prh	v, oc.-sn, w : 10, sn
Means	0·6	8·4	...	...	...	...	(25 days) 0·36	303		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 32°·4, being 4°·8 *lower* than
The mean *Temperature of the Dew Point* for the month was 29°·3, being 6°·1 *lower* than
The mean *Degree of Humidity* for the month was 83·7, being 5·1 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·162, being 0in·045 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·0, being 0gr·4 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 555 grains, being 1 grain *greater* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·068. The maximum daily amount of *Sunshine* was 3·9 hours on January 27.

The highest reading of the *Solar Radiation Thermometer* was 81°·5 on January 18; and the lowest reading of the *Terrestrial Radiation Thermometer* was 20°·3 on January 29.

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

The *Proportions of Wind* referred to the cardinal points were N. 13, E. 4, S. 8, and W. 5. One day was calm.

The *Greatest Pressure of the Wind* in the month was 15·5 lbs. on the square foot on January 23. The mean daily *Horizontal Movement of the Air* for the month was 303 miles; the greatest daily value was 559 miles on January 23; and the least daily value was 72 miles on January 6.

Rain fell on 19 days in the month, amounting to 1in·617, as measured by gauge No. 6 partly sunk below the ground; being 0in·372 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Feb. 1	...	29·857	30·7	22·9	7·8	26·8	−12·9	26·1	22·9	3·9	8·0	1·4	86	42·7	22·9	0·084	2·0	sP
2	...	29·788	34·2	19·2	15·0	30·5	− 9·2	29·6	27·0	3·5	9·0	1·0	86	37·8	19·2	0·050	0·0	sP : vP : ssP
3	First Quarter	29·865	31·7	17·7	14·0	28·1	−11·6	26·7	21·0	7·1	9·0	1·4	73	39·0	17·6	0·000	0·5	vP : ... : ...
4	...	29·996	34·1	26·5	7·6	31·0	− 8·8	28·7	22·5	8·5	12·9	4·2	69	53·0	26·0	0·000	1·5	... : sP
5	...	29·877	30·9	18·1	12·8	24·7	−15·1	23·2	14·9	9·8	17·5	3·1	64	76·0	18·1	0·000	0·5	sP : sP : ssP
6	Greatest Declination N.	29·636	27·0	15·1	11·9	19·3	−20·4	18·0	8·6	10·7	15·4	3·5	62	58·1	15·1	0·020	1·5	...
7	...	29·722	27·0	9·6	17·4	17·5	−21·9	15·8	3·1	14·4	23·1	6·2	53	72·0	9·6	0·000	0·0	...
8	...	29·789	29·0	6·9	22·1	18·7	−20·4	17·0	4·5	14·2	20·0	3·9	53	76·0	6·9	0·000	0·0	...
9	Perigee: Full	29·929	27·0	10·2	16·8	18·4	−20·3	17·8	13·4	5·0	11·6	0·0	81	41·0	8·0	0·000	0·0	...
10	...	29·680	29·7	14·4	15·3	23·6	−14·8	21·7	10·3	13·3	22·6	0·9	55	63·0	11·7	0·000	1·5	...
11	...	29·492	32·0	21·7	10·3	27·0	−11·3	25·2	16·9	10·1	16·0	5·2	64	78·9	15·5	0·000	4·5	... : sP : ...
12	In Equator	29·764	35·1	17·4	17·7	26·3	−12·2	24·5	15·7	10·6	11·1	3·1	62	67·0	13·0	0·000	0·0	...
13	...	30·021	36·2	16·2	20·0	24·9	−13·9	23·9	18·4	6·5	8·1	2·5	75	72·9	10·9	0·000	1·0	...
14	...	30·128	28·4	20·2	8·2	23·9	−15·3	22·6	14·9	9·0	16·2	1·6	67	85·0	14·0	0·000	3·0	...
15	...	30·098	31·1	24·0	7·1	27·8	−11·8	26·3	20·1	7·7	13·2	4·1	72	37·8	22·0	0·003	0·0	... : sP
16	Last Quarter	30·235	34·1	24·5	9·6	29·2	−10·6	27·1	19·8	9·4	10·4	4·4	67	83·5	19·0	0·000	0·0	... : ssP
17	...	30·303	36·8	18·2	18·6	27·3	−12·5	25·7	18·7	8·6	10·0	4·1	69	75·0	11·4	0·000	0·0	...
18	...	30·156	36·9	22·4	14·5	31·0	− 8·7	29·9	26·9	4·1	7·0	1·6	83	48·6	17·0	0·000	1·5	...
19	Greatest Declination S.	30·107	40·7	29·2	11·5	34·4	− 5·2	32·8	30·1	4·3	8·7	1·3	84	76·7	22·0	0·000	4·5	...
20	...	30·157	40·0	27·0	13·0	34·5	− 5·0	32·6	29·4	5·1	8·3	1·6	81	64·2	19·7	0·000	0·3	...
21	...	30·150	42·9	33·9	9·0	37·1	− 2·4	34·9	31·8	5·3	8·4	3·0	82	53·9	32·1	0·000	0·7	...
22	Apogee	30·145	40·1	35·1	5·0	37·4	− 2·2	35·0	31·7	5·7	7·2	3·1	80	59·8	32·2	0·000	0·0	...
23	...	30·099	43·1	34·0	9·1	37·2	− 2·6	35·7	33·6	3·6	8·6	1·6	87	52·0	30·6	0·000	0·5	...
24	New	29·703	45·0	33·9	11·1	37·8	− 2·1	36·3	34·3	3·5	9·9	1·1	87	68·4	30·5	0·065	2·7	...
25	...	29·693	35·9	29·8	6·1	33·7	− 6·3	32·1	29·2	4·5	8·1	0·5	84	54·9	24·5	0·000	3·8	...
26	In Equator	29·673	40·6	27·4	13·2	34·2	− 5·9	32·5	29·6	4·6	9·4	0·0	82	62·4	22·1	0·000	0·0	...
27	...	29·616	41·2	31·4	9·8	35·9	− 4·2	32·4	27·1	8·8	11·3	6·2	70	75·5	26·4	0·000	0·0	...
28	...	29·830	45·0	32·1	12·9	37·8	− 2·4	34·0	28·7	9·1	14·1	5·5	70	77·9	29·8	0·000	1·5	...
Means	...	29·911	35·2	22·8	12·4	29·1	−10·4	27·4	21·6	7·5	12·0	2·7	73·1	62·6	19·6	Sum 0·222	1·1	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·911, being 0in·112 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 45°·0 on February 24 and 28; the lowest in the month was 6°·9 on February 8; and the range was 38°·1.
The mean of all the highest daily readings in the month was 35°·2, being 10°·1 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 22°·8, being 11°·5 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 12°·4, being 1°·4 *greater* than the average for the 50 years, 1841–1890.
The mean for the month was 29°·1, being 10°·4 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Feb. 1	0·0	9·1	NNE : ENE	NE : NNE : N	0·7	0·0	0·01	137	10, sn : 10 : 10, slt.-sn	10, oc.-sn : 10, oc.-sn
2	0·0	9·2	NNW : N : NNE	NE : E : SE	1·1	0·0	0·02	167	10, oc.-sn : 10, oc.-sn	10, oc.-sn : 0
3	0·0	9·2	E : NE	ENE : NE	6·5	0·0	0·32	345	0 : 10 : 10, slt.-sn, w	p.-cl, sc : 10
4	0·1	9·3	NE : NNE	NE	5·1	0·0	0·38	404	10 : 10 : 10, oc.-sn	v, oc.-sn : p.-cl, w
5	3·6	9·3	NE	NE : NNE	2·3	0·0	0·16	310	10 : 10, oc.-sn : 2, li.-cl	4, li.-cl : v, li.-cl : 0
6	3·3	9·4	NE : NNE : N	ENE : NE	0·8	0·0	0·02	178	0 : 10, sn : v, oc.-sn	v, cu.-s, li.-cl, oc.-sn : v
7	4·3	9·4	E : NE	E	1·7	0·0	0·01	150	0 : p.-cl, slt.-sn : 0	0 : 0
8	5·1	9·5	NE : ENE	N : NNW	3·4	0·0	0·04	163	0 : 0, slt.-f : 0	1, li.-cl : 2, th.-cl, slt.-h, lu.-ha : 0
9	0·0	9·6	NNW : S	ESE : E	0·1	0·0	0·00	123	0 : 0, f, ho.-fr : 0, f	0 : 0
10	0·9	9·6	ENE : E	E : ENE	6·6	0·0	0·35	316	0 : 0 : 0, so.-ha	0 : 10 : 10, w
11	1·8	9·7	ENE : NE	NE : NNE : N	8·0	0·0	0·81	469	10, w : 5, ci.-cu, li.-cl, st.-w	3, li.-cl, w, so.-ha : 0, slt.-h
12	0·5	9·8	NW : Calm	NNW : NW : WSW	1·1	0·0	0·03	181	0, ho.-fr : 0, f	3, li.-cl : 0, slt.-f
13	1·8	9·8	WSW : SW	E : SE	0·6	0·0	0·01	138	0, ho.-fr : 0, f	0 : 0
14	2·3	9·9	E	E	3·9	0·0	0·20	232	0 : 10, slt.-sn : v, oc.-sn	v, slt.-sn : v, slt.-sn
15	0·0	9·9	E : ENE : NE	NE	8·5	0·0	0·78	471	10, w : 10, w : 10, w, slt.-sn	10, oc.-sn : 10, w
16	7·2	10·0	NE : ENE	NE	17·2	0·0	0·98	522	0 : 1, li.-cl, w	0 : 0
17	3·1	10·1	NNE : Calm	ENE : NE	0·5	0·0	0·00	132	0, ho.-fr : 0 : 10, slt.-f, glm	0 : 0
18	0·0	10·1	NNW : Calm	N	1·2	0·0	0·05	174	10 : 10, f, glm	10 : 10, slt.-r : 10
19	5·1	10·2	N : NE	ENE : NE	0·3	0·0	0·00	154	10 : 10 : p.-cl	0, slt.-h : 0
20	0·0	10·3	NE : NNE	NNE	1·6	0·0	0·05	196	p.-cl : 10 : 10	10 : 10
21	0·0	10·3	NNW : N : NNE	NNE : N	2·9	0·0	0·07	224	10 : 10, m, slt.-f	10 : 10
22	0·1	10·4	N	N	1·3	0·0	0·06	227	10 : 10, slt.-r	10, glm : 10
23	0·0	10·5	N : SW	NW : WSW	0·3	0·0	0·00	137	10 : 10, f, glm	7, cu.-s, li.-cl : v, slt.-f
24	0·3	10·5	WSW : SW	WSW : NNW	2·2	0·0	0·08	255	10 : 10	10 : 10, th.-r
25	0·2	10·6	NNE : NE	NE : NNE	5·0	0·0	0·40	447	10, sl : 10, w	10 : 0
26	0·0	10·7	NE : N	WSW : N	3·0	0·0	0·10	250	0, ho.-fr : 10, f, glm : 10, glm	3, li.-cl, h : 10 : 10, slt.-r
27	2·8	10·7	NNW	NNW	3·6	0·0	0·35	343	p.-cl, slt.-sn : v, ci.-s, li.-cl	p.-cl : 10, oc.-sn : 10
28	0·2	10·8	NNW : WSW	WSW : SW	2·4	0·0	0·13	294	10 : 10, f : 5, th.-cl, h, slt.-f	6, li.-cl : 10 : 10
Means	1·5	9·9	...	...	...	...	0·19	255		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was $27^{\circ}\cdot4$, being $10^{\circ}\cdot4$ *lower* than
The mean *Temperature of the Dew Point* for the month was $21^{\circ}\cdot6$, being $14^{\circ}\cdot0$ *lower* than
The mean *Degree of Humidity* for the month was 73·1, being 12·9 *less* than
The mean *Elastic Force of Vapour* for the month was $0^{in}\cdot116$, being $0^{in}\cdot092$ *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was $1^{gr}\cdot4$, being $1^{gr}\cdot0$ *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 568 grains, being 15 grains *greater* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·154. The maximum daily amount of *Sunshine* was 7·2 hours on February 16.

The highest reading of the *Solar Radiation Thermometer* was $85^{\circ}\cdot0$ on February 14; and the lowest reading of the *Terrestrial Radiation Thermometer* was $6^{\circ}\cdot9$ on February 8.

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

The *Proportions of Wind* referred to the cardinal points were N. 13, E. 9, S. 2, and W. 4.

The *Greatest Pressure of the Wind* in the month was 17·2 lbs. on the square foot on February 16. The mean daily *Horizontal Movement of the Air* for the month was 255 miles; the greatest daily value was 522 miles on February 16; and the least daily value was 123 miles on February 9.

Rain fell on 4 days in the month, amounting to $0^{in}\cdot222$, as measured by gauge No. 6 partly sunk below the ground; being $1^{in}\cdot262$ *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Mar. 1	...	29·626	47·1	36·5	10·6	41·1	+ 0·9	38·9	36·2	4·9	9·7	1·3	83	67·5	31·0	0·089	4·5	...
2	...	29·573	40·0	30·5	9·5	35·0	− 5·4	32·4	28·2	6·8	12·5	1·1	75	85·3	26·0	0·029	0·0	... : vP
3	...	29·462	38·8	25·3	13·5	30·4	−10·1	28·9	24·6	5·8	8·5	0·0	77	79·0	18·1	0·000	0·0	mP : sP : sP, ssN
4	First Quarter	29·617	40·3	27·4	12·9	32·3	− 8·4	30·7	27·2	5·1	11·5	0·0	81	83·1	25·0	0·129	0·5	sP : sP : vP, ssN
5	Greatest Declination N.	29·749	43·0	30·4	12·6	35·4	− 5·5	33·4	30·2	5·2	8·5	1·6	81	81·2	28·0	0·000	1·5	... : ... : vP
6	...	29·698	42·0	34·1	7·9	37·4	− 3·7	35·1	31·9	5·5	8·1	4·6	81	56·3	31·3	0·000	3·8	mP : sP
7	...	29·671	47·7	34·2	13·5	38·4	− 2·6	37·1	35·3	3·1	7·6	1·2	89	84·2	31·0	0·126	6·7	vN, mP : mP
8	...	29·579	48·0	32·4	15·6	39·4	− 1·5	36·6	33·0	6·4	11·4	1·7	78	94·0	28·2	0·011	5·7	vP : sP : sP, vN
9	...	29·378	43·4	37·8	5·6	40·1	− 0·7	39·1	37·8	2·3	4·4	0·5	92	54·0	35·0	0·060	7·8	mP : vP, vN : sN, vP
10	Perigee	29·321	51·8	36·7	15·1	43·1	+ 2·4	40·4	37·2	5·9	12·0	1·6	80	102·6	32·0	0·015	1·2	vN, wP : mP : ssP
11	In Equator: Full	29·419	56·7	34·1	22·6	42·9	+ 2·3	39·0	34·3	8·6	17·0	2·5	72	110·0	29·2	0·000	3·8	vP
12	...	29·506	52·3	34·2	18·1	42·0	+ 1·3	39·5	36·4	5·6	11·2	0·5	81	95·0	30·8	0·000	1·2	mP : sP : sP
13	...	29·840	48·1	32·9	15·2	39·8	− 1·1	37·3	34·1	5·7	10·8	1·9	80	95·5	27·9	0·000	3·8	mP : sP : mP
14	...	30·136	55·8	31·0	24·8	42·9	+ 1·7	40·1	36·7	6·2	13·2	0·6	79	93·6	26·2	0·000	0·0	mP : vP : sP
15	...	30·223	52·8	41·0	11·8	46·9	+ 5·5	43·8	40·3	6·6	13·0	1·3	79	89·7	36·0	0·000	0·0	sP
16	...	30·184	51·0	41·2	9·8	46·5	+ 5·0	44·0	41·1	5·4	8·0	2·4	83	65·0	38·2	0·000	0·0	sP : vP, wN : mP, wN
17	...	30·098	57·0	39·0	18·0	47·8	+ 6·2	44·4	40·7	7·1	14·8	2·0	77	107·0	32·0	0·000	0·5	sP : mP : sP
18	Last Quarter: Greatest Dec. S.	29·998	61·6	33·6	28·0	46·8	+ 5·2	42·5	37·7	9·1	18·1	2·0	71	104·2	26·7	0·000	1·5	vP : mP
19	...	29·826	53·8	38·5	15·3	45·9	+ 4·4	43·2	40·1	5·8	10·2	2·1	81	70·6	35·7	0·028	0·0	mP
20	...	29·704	56·1	43·3	12·8	49·4	+ 8·0	47·2	44·8	4·6	12·2	1·1	85	76·9	42·5	0·078	1·0	mP : vP, sN
21	...	29·772	61·0	42·4	18·6	50·3	+ 8·9	48·4	46·4	3·9	9·7	0·4	87	90·9	41·7	0·016	3·0	wP : mP
22	Apogee	29·783	63·0	42·0	21·0	51·3	+ 9·8	47·6	43·7	7·6	16·7	0·9	76	106·3	36·0	0·004	0·0	sP
23	...	29·726	55·0	39·2	15·8	46·3	+ 4·5	44·8	43·0	3·3	6·8	0·7	89	107·0	33·2	0·054	2·0	mP : vP, wwN
24	...	29·268	57·1	43·0	14·1	49·9	+ 7·8	46·8	43·5	6·4	14·0	1·5	79	97·0	38·0	0·010	6·0	wwP : vP
25	In Equator	29·107	55·7	39·2	16·5	45·4	+ 3·0	42·2	38·5	6·9	15·6	1·6	77	107·7	34·5	0·022	0·0	wP : vP, sN
26	New	29·114	53·2	39·5	13·7	45·1	+ 2·2	41·5	37·3	7·8	14·2	2·8	74	92·0	35·2	0·007	0·0	vP, sN : mP
27	...	29·023	54·3	38·1	16·2	45·8	+ 2·5	44·7	43·5	2·3	5·9	0·6	92	80·2	35·6	0·484	0·0	mP, vN : wP, sN
28	...	28·781	49·7	40·8	8·9	45·6	+ 1·9	42·0	37·8	7·8	13·0	3·8	74	86·2	38·7	0·041	1·0	wP : vP, vN : mP
29	...	28·953	47·0	39·1	7·9	41·5	− 2·6	39·3	36·6	4·9	7·5	2·8	83	73·9	36·8	0·106	4·5	wP : vN, vP : vP, sN
30	...	29·188	49·0	35·4	13·6	40·8	− 3·8	38·4	35·4	5·4	9·5	2·1	82	97·1	33·0	0·043	4·5	mP : vP, sN : vP, ssN
31	...	29·355	50·6	35·3	15·3	42·5	− 2·5	39·5	35·9	6·6	14·9	1·4	78	87·2	30·0	0·076	0·0	vP, sN : wP : wP
Means	...	29·570	51·1	36·4	14·7	42·8	+ 1·1	40·3	37·1	5·8	11·3	1·6	80·5	87·7	32·4	Sum 1·428	2·1	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was $29^{\text{in}}\cdot570$, being $0^{\text{in}}\cdot183$ *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was $63^{\circ}\cdot0$ on March 22; the lowest in the month was $25^{\circ}\cdot3$ on March 3; and the range was $37^{\circ}\cdot7$.
The mean of all the highest daily readings in the month was $51^{\circ}\cdot1$, being $1^{\circ}\cdot4$ *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was $36^{\circ}\cdot4$, being $1^{\circ}\cdot4$ *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was $14^{\circ}\cdot7$, being *the same as* the average for the 50 years, 1841–1890.
The mean for the month was $42^{\circ}\cdot8$, being $1^{\circ}\cdot1$ *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Mar. 1	0·2	10·8	SW	WSW : W	5·6	0·0	0·45	412	10 : 10, r	p.-cl : 0
2	1·5	10·9	NW : NNW	NNW : NW	2·4	0·0	0·12	248	10 : 10 : 10, sn	v : 10, sn
3	2·2	11·0	NNW : WSW	N : NNW	2·5	0·0	0·11	216	v : 10 : v, f	v : v, slt.-sn : 0
4	2·5	11·1	NW : NNW	N : NNW	6·2	0·0	0·25	325	10 : 10 : 7,cu.-s,li.-cl,slt.-sn	v, cu, li.-cl : v, sn : 10
5	3·5	11·1	NNW : N	N : SW	2·6	0·0	0·11	233	10 : p.-cl	7, ci.-cu, li.-cl : 10, th.-cl : 10
6	0·0	11·2	SSW : S	SSW : S	2·3	0·0	0·10	262	10 : 10	10 : 10, slt.-r : 10
7	2·2	11·2	S	SSW : S	1·6	0·0	0·14	273	10, r : 10	p.-cl : 3, li.-cl : 10
8	3·9	11·3	SSE : SE	SSE : SE	2·3	0·0	0·15	274	10 : 10 : v, li.-cl	4, li.-cl : 10, slt.-r : 10, sh.-r
9	0·0	11·4	SSE : SE : ESE	ESE : SE : SSE	1·3	0·0	0·03	187	10 : 10, slt.-r	10, r : 10 : v, li.-cl
10	7·1	11·4	S : SSW	SSW : S	4·7	0·0	0·53	400	v, li.-shs : 4, cu, li.-cl	3, li.-cl : 3, li.-cl : 0
11	6·5	11·5	S	SE : ENE	0·5	0·0	0·00	177	0 : p.-cl : 3,li.-cl,slt.-h	4, cu.-s, li.-cl : 7,th.-cl,so.-ha : 8,th.-cl,lu.-ha
12	5·2	11·6	ENE : NE : NNE	NNE : N	1·8	0·0	0·18	288	10, f : 3, li.-cl	2, li.-cl : v, li.-cl : v, li.-cl
13	4·7	11·6	N	N	3·5	0·0	0·33	301	10 : 10 : 2, li.-cl	v : 8, th.-cl : 0, h, f
14	5·7	11·7	SW	WSW : SW	1·5	0·0	0·02	211	0, ho.-fr : 0, f : 3, li.-cl, h	3, th.-cl, h : 0 : 10
15	0·6	11·8	SW	WSW	1·6	0·0	0·05	219	v : p.-cl	10 : 10, slt.-f
16	0·0	11·8	SW : E	NE : SE	0·0	0·0	0·00	114	10 : p.-cl, h, slt.-f	10, slt.-f : 10
17	4·3	11·9	Calm : SE	Calm : SW	0·0	0·0	0·00	80	10 : 3, li.-cl	p.-cl, h, f : 0
18	9·2	12·0	S	SW	0·7	0·0	0·02	156	0, ho.-fr : 0, ho.-fr : 0, f	0 : 0
19	0·0	12·0	SW : WSW	WSW	4·6	0·0	0·59	398	0 : 10 : 10	10 : 10, fq.-th.-r
20	0·2	12·1	WSW : NW	NW : NE : E	3·3	0·0	0·55	338	10, oc.-shs : 10, oc.-slt.-r	10 : 10, r
21	0·6	12·2	SE : SW	WSW : WNW	1·8	0·0	0·07	219	10, r : 10, oc.-r	10 : p.-cl : 0, h
22	4·4	12·2	SW : W : NW	NW : NE : Calm	0·9	0·0	0·01	187	0, d : 2, li.-cl : 0, h, f	2, li.-cl, h : 0, l
23	2·7	12·3	Calm : SSW	SSW	7·3	0·0	0·51	351	0, hy.-d : 0 : v, li.-cl	10 : 10, w, r
24	2·8	12·4	SSW	SW : WSW	36·0	0·2	3·33	799	10, w, r : 10,st.-w,shs.-r,sc	v, g, so.-ha : v, st.-w : 0, l
25	6·1	12·4	SSW : SW	SSW : SW	4·7	0·0	0·46	436	0, d : 0 : v,cu,li.-cl	v, sh.-r : v, sh.-r
26	1·9	12·5	SSW : SW : NW	NW : SW	5·4	0·0	0·58	421	v, shs.-r : p.-cl : 10	v, cu.-s, li.-cl : 0
27	0·0	12·6	SSW : SE	SSW	7·3	0·0	0·40	389	p.-cl : 10, r : 10, fq.-r	10, oc.-r : 10, fq.-r
28	1·9	12·6	SSW	SW	19·1	0·0	2·12	736	0, w : v, fq.-hy.-shs,hl, w	vv, w, so.-ha : 0, w
29	0·5	12·7	SW	WSW	7·8	0·0	1·20	557	p.-cl, shs.-r, w : 10 : 10, oc.-slt.-r	v, shs.-r, hl : v, shs.-r : 0
30	4·3	12·8	SW	SW : WSW	5·1	0·0	0·66	421	0 : 0 : 10	v, hy.-shs, hl : v, sh.-r : 10
31	3·0	12·8	NW	W : SSW	1·2	0·0	0·07	210	10, r : 10	10, th.-cl : 10, th.-cl : 0
Means	2·8	11·8	...	...	...	...	0·42	317		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 40°·3, being 1°·0 *higher* than the average for the 50 years, 1841–1890.
The mean *Temperature of the Dew Point* for the month was 37°·1, being 0°·8 *higher* than the average for the 50 years, 1841–1890.
The mean *Degree of Humidity* for the month was 80·5, being 0·6 *less* than the average for the 50 years, 1841–1890.
The mean *Elastic Force of Vapour* for the month was 0in·221, being 0in·007 *greater* than the average for the 50 years, 1841–1890.
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·6, being 0gr·1 *greater* than the average for the 50 years, 1841–1890.
The mean *Weight of a Cubic Foot of Air* for the month was 545 grains, being 5 grains *less* than the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·239. The maximum daily amount of *Sunshine* was 9·2 hours on March 18.

The highest reading of the *Solar Radiation Thermometer* was 110°·0 on March 11; and the lowest reading of the *Terrestrial Radiation Thermometer* was 18°·1 on March 3.

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

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 3, S. 13, and W. 10.

The *Greatest Pressure of the Wind* in the month was 36·0 lbs. on the square foot on March 24. The mean daily *Horizontal Movement of the Air* for the month was 317 miles; the greatest daily value was 799 miles on March 24; and the least daily value was 80 miles on March 17.

Rain fell on 19 days in the month, amounting to 1in·428, as measured by gauge No. 6 partly sunk below the ground; being 0in·033 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	TEMPERATURE. Of the Air. Lowest.	TEMPERATURE. Of the Air. Daily Range.	TEMPERATURE. Of the Air. Mean of 24 Hourly Values.	TEMPERATURE. Of the Air. Excess above Average of 50 Years.	TEMPERATURE. Of Evaporation. Mean of 24 Hourly Values.	TEMPERATURE. Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Difference between the Air Temperature and Dew Point Temperature. Greatest.	Difference between the Air Temperature and Dew Point Temperature. Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	TEMPERATURE. Of Radiation. Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
April 1	Greatest Declination N.	29·537	52·2	31·4	20·8	40·7	− 4·7	38·8	36·4	4·3	12·6	0·0	85	105·2	27·0	0·000	1·5	wP : wP : mP
2	First Quarter	29·715	46·2	39·1	7·1	42·2	− 3·5	40·9	39·4	2·8	5·3	0·9	90	56·0	36·4	0·000	4·5	wP, wN : mP : mP
3	...	29·776	45·1	37·4	7·7	40·0	− 6·0	39·0	37·7	2·3	4·8	0·0	92	64·0	30·5	0·000	1·2	mP : sP : vP, wwN
4	...	29·961	46·8	36·5	10·3	40·4	− 5·8	37·9	34·7	5·7	10·1	1·6	81	100·4	28·7	0·016	3·8	mP : vP: vP
5	...	30·004	49·2	35·2	14·0	41·5	− 4·7	38·8	35·5	6·0	10·5	2·0	80	82·8	32·6	0·000	1·5	vP, wN : wP, wN : mP
6	...	29·412	47·7	37·2	10·5	44·1	− 2·1	42·3	40·2	3·9	9·2	1·2	86	62·2	34·5	0·023	6·0	mP : vP, vN : vP, ssN
7	Perigee	29·298	47·4	37·1	10·3	44·0	− 2·1	42·1	39·8	4·2	7·9	0·0	85	68·5	31·0	0·051	4·5	wP, sN : vP, vN : mP
8	In Equator	29·642	58·0	38·1	19·9	46·2	+ 0·3	43·7	40·8	5·4	12·0	0·4	83	100·7	31·9	0·000	0·0	mP
9	Full	29·757	64·0	45·7	18·3	52·8	+ 7·2	49·8	46·9	5·9	15·8	0·2	81	114·7	42·0	0·000	5·0	wP : mP : vP
10	...	29·889	62·0	45·5	16·5	52·5	+ 7·0	49·2	45·9	6·6	12·0	0·4	79	109·2	41·0	0·000	4·0	mP
11	...	30·113	62·2	39·6	22·6	50·2	+ 4·7	44·8	39·1	11·1	22·8	1·1	66	112·1	34·0	0·000	0·0	sP : vP, wN : mP
12	...	30·156	57·2	37·5	19·7	45·9	+ 0·2	41·4	36·2	9·7	18·4	1·4	70	119·0	29·8	0·000	0·0	mP : wP, wwN : wP, wN
13	...	30·084	56·0	34·1	21·9	43·9	− 2·1	39·1	33·4	10·5	19·0	3·9	66	113·6	29·8	0·000	0·0	wP : wP, wwN : mP
14	Greatest Declination S.	30·096	53·2	34·4	18·8	42·7	− 3·7	37·7	31·7	11·0	21·4	2·2	66	107·0	30·4	0·000	0·0	mP : wP, wN : mP
15	...	29·930	51·2	32·9	18·3	41·1	− 5·8	38·3	34·8	6·3	10·7	2·3	79	111·0	25·3	0·000	1·2	mP : wP : mP
16	Last Quarter	29·733	57·0	37·5	19·5	43·7	− 3·6	42·0	40·0	3·7	10·8	0·0	86	108·2	37·2	0·000	3·8	wP : vP, wwN : mP
17	...	29·532	66·7	42·1	24·6	52·2	+ 4·5	48·9	45·5	6·7	14·4	1·8	78	108·0	38·7	0·058	0·0	vP, ssN : mP, mN : vP, vN
18	...	29·471	63·3	45·0	18·3	52·9	+ 4·8	50·6	48·3	4·6	11·8	0·6	85	107·9	39·5	0·000	0·2	wP : wP : mP
19	Apogee	29·659	64·0	44·4	19·6	52·4	+ 4·1	48·4	44·3	8·1	18·2	0·4	74	118·0	38·9	0·067	0·8	mP, vN : vP : mP
20	...	29·837	67·7	48·7	19·0	56·0	+ 7·5	50·5	45·3	10·7	19·1	4·6	67	119·9	41·7	0·000	1·8	sP : mP : vP
21	...	29·761	60·6	49·2	11·4	53·8	+ 5·3	51·2	48·7	5·1	11·6	1·2	83	82·0	42·7	0·026	6·7	wP : mP : mP
22	In Equator	29·707	60·2	49·0	11·2	53·1	+ 4·6	50·3	47·5	5·6	10·6	1·0	81	89·0	44·0	0·026	9·0	wP : mP : vP, sN
23	...	29·485	62·8	44·4	18·4	53·9	+ 5·5	50·8	47·8	6·1	14·1	0·2	79	108·6	38·5	0·031	5·5	wP : mP : vP
24	...	29·530	64·8	43·0	21·8	52·6	+ 4·2	49·8	47·0	5·6	15·4	0·2	82	116·0	37·0	0·100	5·5	sP : mP : mP, sN
25	New	29·314	58·0	44·1	13·9	50·3	+ 1·9	48·9	47·4	2·9	9·7	0·0	90	105·0	39·0	0·485	3·0	sP : vP, vN : vP, vN
26	...	29·283	54·8	46·1	8·7	49·0	+ 0·6	47·3	45·4	3·6	9·6	0·8	88	89·2	43·8	0·175	4·5	vP, vN
27	...	29·439	53·2	45·0	8·2	47·8	− 0·7	46·8	45·7	2·1	5·4	0·2	93	84·8	43·1	0·191	0·0	vP, vN
28	...	29·857	55·6	41·5	14·1	48·5	− 0·1	46·8	45·0	3·5	8·0	0·2	88	90·0	37·5	0·000	0·0	wwP : mP
29	Greatest Declination N.	29·992	64·0	36·4	27·6	50·8	+ 2·0	47·4	43·8	7·0	16·2	0·0	78	86·8	31·2	0·000	0·5	wP : vP : mP
30	...	30·051	64·8	42·7	22·1	52·9	+ 3·9	49·4	45·9	7·0	13·9	1·1	78	116·1	35·9	0·002	1·5	mP : mP : ...
Means	...	29·734	57·2	40·7	16·5	47·9	+ 0·8	45·1	42·0	5·9	12·7	1·0	80·6	98·5	35·8	Sum 1·251	2·5	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·734, being 0in·007 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 67°·7 on April 20; the lowest in the month was 31°·4 on April 1; and the range was 36°·3.
The mean of all the highest daily readings in the month was 57°·2, being *the same as* the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 40°·7, being 1°·8 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 16°·5, being 1°·8 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 47°·9, being 0°·8 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
April 1	4·6	12·9	SSE : NE	E : NNE	1·6	0·0	0·04	177	0 : 0 : 2, li.-cl, f, h	p.-cl : v : 10
2	0·0	13·0	N : NNE	NNE	3·2	0·0	0·50	405	10 : 10	10 : 10
3	0·0	13·0	NNE	N : SW	0·7	0·0	0·00	146	10 : 10	10 : 4, li.-cl, slt.-f : v, slt.-f
4	1·5	13·1	NNE : NE	N : NE : SE	1·6	0·0	0·07	205	10 : 10, sl : v, cu.-s, li.-cl	10 : 10
5	0·7	13·2	SSE : SW	SW : SSW	2·2	0·0	0·12	243	10 : 10	10 : v, so.-ha : v, li.-cl
6	0·0	13·2	SSW : SW	SW	12·5	0·0	1·11	569	10 : 10, w	10, oc.-slt.-r, w : 10, oc.-r
7	0·3	13·3	WSW : N	N : S	3·0	0·0	0·18	276	10, sh.-r : 10 : 10, r	10, oc.-r : 0
8	2·1	13·4	S : WSW	SW : SSW	3·0	0·0	0·23	316	v : p.-cl : p.-cl	8, cu.-s, li.-cl : 3, li.-cl : 10, slt.-r
9	5·2	13·4	SW	SW : SSW	3·0	0·0	0·33	373	10 : 10 : 4, li.-cl	v, li.-cl : 0
10	1·8	13·5	SSW : SW	SW : W	2·4	0·0	0·24	309	10 : 10	10 : 5, li.-cl : 0
11	4·7	13·6	SW : NW	NW : NNW : N	1·8	0·0	0·10	226	0, m, d : 0, h, m : 2, li.-cl, h	2, li.-cl : 0
12	5·2	13·6	N : ENE	NE : SE : S	1·5	0·0	0·11	165	p.-cl, m : 5, li.-cl : 0	v, li.-cl : v, li.-cl : 10
13	10·3	13·7	SW : SE : E	E : ENE	2·5	0·0	0·12	259	10 : 0 : v, li.-cl	2, li.-cl : v, li.-cl
14	9·9	13·7	NE : E	E : ENE	5·5	0·0	0·49	389	p.-cl, m : 0 : 2, li.-cl	2, th.-cl : 0
15	5·5	13·8	NE : ENE	NE : ENE	3·3	0·0	0·33	357	0 : 10 : 10	0 : 10
16	5·3	13·9	NE	E	3·0	0·0	0·23	327	10 : 10	0 : 0
17	1·9	13·9	N : NNE : NE	NE : E : SE	0·8	0·0	0·00	143	10, shs.-r : 10	v, t, slt.-r : p.-cl : 10, r
18	1·4	14·0	SE : S : SW	SW : SSW	1·4	0·0	0·04	234	10, li.-shs : 10 : p.-cl	10 : p.-cl : 0, h, m
19	3·9	14·1	SW : WSW	WSW	1·6	0·0	0·05	242	p.-cl : 10, r : v, cu.-s, li.-cl	7, cu.-s, li.-cl : 4, cu.-s, li.-cl : p.-cl, m
20	8·1	14·1	SW : SSW	SSW : SSE	2·4	0·0	0·07	235	p.-cl, m : 3, ci.-s, li.-cl	4, li.-cl : 3, li.-cl
21	0·1	14·2	SSW	SSW : SW	2·5	0·0	0·17	310	10, oc.-r : 10, oc.-th.-r	vv : vv : 10
22	0·4	14·2	SW : SSW	SSW : S	3·4	0·0	0·20	306	10 : 10 : p.-cl	10 : 10, fq.-r
23	2·6	14·3	SSW : SW	SW : SSW	4·8	0·0	0·25	351	10, shs.-r : 10	p.-cl : 3, li.-cl, so.-ha : 0
24	2·8	14·4	SSW : SSE	S	3·5	0·0	0·13	237	0 : 10 : v, ci.-cu, li.-cl	v, li.-cl, so.-ha : v, r : 0
25	3·6	14·4	S : ENE	S : SSW	6·3	0·0	0·27	300	v : 10, hy.-r	10 : v : 10, fq.-r
26	1·2	14·5	S : SSW : SW	SW	3·0	0·0	0·22	320	10, oc.-shs : 10, hy.-sh	10, fq.-hy.-shs : 10, oc.-r
27	0·0	14·5	SW : W	WSW : NNW : N	2·0	0·0	0·13	278	10, shs.-r : 10, oc.-r, glm, t	10, hy.-r, hl, gt.-glm, t : 10, fq.-r : 10
28	1·0	14·6	N : NNE	NNE	1·7	0·0	0·12	249	10, li.-shs : 10	10 : p.-cl : 0
29	2·8	14·7	Calm : SW	Variable	0·2	0·0	0·00	118	0, m : 0 : 3, li.-cl, h, f	6, th.-cl, h : 2, li.-cl : 5, th.-cl
30	2·4	14·7	SSW	SSW : S : SSE	0·5	0·0	0·00	184	3, li.-cl, d : p.-cl : v, li.-cl	8, th.-cl, so.-ha : 5, th.-cl, lu.-ha
Means	3·0	13·8	...	...	...	...	0·19	275		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 45°·1, being 1°·2 *higher* than
The mean *Temperature of the Dew Point* for the month was 42°·0, being 1°·8 *higher* than
The mean *Degree of Humidity* for the month was 80·6, being 4·0 *greater* than
The mean *Elastic Force of Vapour* for the month was $0^{\text{in}}\cdot267$, being $0^{\text{in}}\cdot018$ *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was $3^{\text{grs}}\cdot0$, being $0^{\text{gr}}\cdot1$ *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 542 grains, being 1 grain *less* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·215. The maximum daily amount of *Sunshine* was 10·3 hours on April 13.

The highest reading of the *Solar Radiation Thermometer* was 119°·9 on April 20; and the lowest reading of the *Terrestrial Radiation Thermometer* was 25°·3 on April 15.

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

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

The *Greatest Pressure of the Wind* in the month was 12·5 lbs. on the square foot on April 6. The mean daily *Horizontal Movement of the Air* for the month was 275 miles; the greatest daily value was 569 miles on April 6; and the least daily value was 118 miles on April 29.

Rain fell on 12 days in the month, amounting to $1^{\text{in}}\cdot251$, as measured by gauge No. 6 partly sunk below the ground; being $0^{\text{in}}\cdot410$ *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
May 1	...	30·048	64·0	42·6	21·4	51·6	+ 2·4	47·3	42·9	8·7	16·9	2·9	73	109·1	35·0	0·036	0·0	... : wP, vN : mP
2	First Quarter	30·400	62·5	37·8	24·7	50·0	+ 0·6	44·3	38·2	11·8	21·8	1·6	64	114·4	29·8	0·000	0·0	mP : vP : vP
3	...	30·343	63·4	40·1	23·3	50·4	+ 0·7	45·3	40·0	10·4	19·4	3·7	68	117·0	30·7	0·000	0·0	vvP : vP, vN
4	Perigee	30·300	63·4	41·7	21·7	52·9	+ 2·9	47·1	41·3	11·6	22·2	4·0	65	123·7	34·0	0·000	0·0	vP
5	In Equator	30·169	62·7	39·0	23·7	50·5	+ 0·2	46·5	42·3	8·2	15·0	1·9	74	126·4	31·5	0·000	0·0	mP : wP : vP
6	...	30·128	70·1	42·2	27·9	57·3	+ 6·7	51·2	45·6	11·7	23·6	1·3	65	127·7	34·4	0·000	0·8	vP : vP, wN : mP
7	...	30·049	67·0	49·2	17·8	58·1	+ 7·3	51·0	44·6	13·5	21·8	6·4	61	127·2	43·5	0·000	2·2	wP : wP, vN
8	Full	29·875	68·2	46·0	22·2	57·3	+ 6·3	51·3	45·8	11·5	23·9	4·4	65	130·1	38·8	0·000	0·0	vP : mP : wP
9	...	29·850	75·1	43·2	31·9	59·4	+ 8·2	52·6	46·6	12·8	24·5	2·6	62	131·8	37·1	0·000	1·0	wwP : vP : ssN, mP
10	...	29·951	70·3	45·8	24·5	57·7	+ 6·2	50·5	44·0	13·7	24·5	4·2	60	129·3	42·9	0·000	0·0	vP : mP : vP
11	...	30·026	75·4	45·2	30·2	60·3	+ 8·6	52·7	46·0	14·3	24·3	5·0	60	130·0	37·0	0·000	0·5	wP : vP, wN : vP
12	Greatest Declination S.	30·072	81·3	48·7	32·6	65·5	+13·5	57·4	50·8	14·7	24·8	3·6	59	130·0	43·8	0·000	1·5	vP: wP : wwN
13	...	30·108	79·9	57·3	22·6	67·6	+15·3	60·5	54·9	12·7	21·6	2·8	64	132·2	52·5	0·052	0·0	vP, vN : vP
14	...	30·072	75·0	55·5	19·5	64·6	+12·0	58·3	53·1	13·5	18·7	4·9	66	120·1	48·4	0·000	0·0	wP : sP : mP
15	...	29·822	63·5	51·8	11·7	57·8	+ 5·0	52·0	46·8	11·0	17·9	6·4	67	102·5	47·0	0·000	1·2	vP, mN : vvP, wN : vvP, wwN
16	Last Quarter : Apogee	29·647	55·2	40·3	14·9	48·0	− 5·1	41·4	34·1	13·9	17·8	6·8	59	123·0	34·0	0·000	3·8	vvP, vvN
17	...	29·538	46·8	39·6	7·2	43·3	−10·0	38·1	31·9	11·4	14·1	2·6	64	85·0	31·6	0·010	0·0	mP : vvP : vvP, wN
18	...	29·420	56·2	41·0	15·2	47·2	− 6·4	45·2	43·0	4·2	9·8	1·3	86	107·7	38·2	0·118	0·0	... : vP : wP, wwN
19	In Equator	29·472	49·1	45·1	4·0	47·8	− 6·1	45·9	43·8	4·0	5·5	1·9	88	59·1	43·7	0·000	1·5	wP, wwN
20	...	29·582	48·8	43·0	5·8	46·3	− 7·9	44·6	42·7	3·6	6·7	0·0	88	61·7	38·2	0·000	4·5	wP : vP : wP
21	...	29·581	63·2	45·0	18·2	53·0	− 1·6	49·5	46·0	7·0	16·0	0·2	77	130·0	34·2	0·000	0·0	wwP : mP : vP
22	...	29·683	68·6	41·1	27·5	55·5	+ 0·5	50·7	46·2	9·3	19·4	0·0	71	108·2	35·9	0·000	0·0	wwP : vP : vP, wwN
23	...	29·758	70·1	44·1	26·0	55·8	+ 0·5	52·0	48·4	7·4	19·3	0·2	77	124·3	37·7	0·190	2·0	mP : vP, vN : vP
24	New	29·738	66·8	46·0	20·8	54·3	− 1·3	51·0	47·8	6·5	16·6	0·4	78	125·8	43·2	0·002	0·0	wwP, sN : wP : mP
25	...	29·806	71·1	48·1	23·0	55·7	0·0	52·3	49·1	6·6	17·8	0·2	79	125·6	45·0	0·000	1·2	mP : mP : wP
26	Greatest Declination N.	30·033	72·7	47·0	25·7	57·7	+ 1·8	54·2	51·0	6·7	16·9	0·4	79	105·0	44·5	0·000	3·8	vP : wP
27	...	30·187	73·3	46·2	27·1	58·4	+ 2·4	54·6	51·2	7·2	17·6	0·2	77	127·7	40·2	0·000	0·7	wP : wP : mP
28	...	30·129	68·8	44·5	24·3	54·5	− 1·5	50·6	46·8	7·7	19·6	0·6	75	132·0	36·6	0·000	2·3	wP : sP : vP
29	Perigee	29·950	78·8	47·0	31·8	59·5	+ 3·3	54·4	49·9	9·6	24·1	0·4	71	135·0	39·0	0·000	0·0	wP : ... : mP
30	...	29·721	86·2	49·3	36·9	69·1	+12·6	60·3	53·5	15·6	31·3	2·6	57	143·8	39·7	0·000	0·0	wwP : wP : vP, wN
31	First Quarter	29·666	74·3	55·7	18·6	65·1	+ 8·3	58·7	53·5	11·6	19·9	3·4	66	134·4	52·0	0·046	1·0	vvP, sN : mP : mP
Means	...	29·907	67·5	45·5	22·0	55·9	+ 2·8	50·7	45·9	10·1	19·1	2·5	69·8	118·7	39·4	Sum 0·454	0·9	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29^{in}·907, being 0^{in}·121 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 86°·2 on May 30; the lowest in the month was 37°·8 on May 2; and the range was 48°·4.
The mean of all the highest daily readings in the month was 67°·5, being 3°·4 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 45°·5, being 1°·8 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 22°·0, being 1°·6 *greater* than the average for the 50 years, 1841–1890.
The mean for the month was 55°·9, being 2°·8 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
May 1	3·7	14·8	SE : S	S : SW : NW	4·9	0·0	0·38	349	p.-cl : 4, th.-cl, so.-ha	p.-cl, slt.-r : p.-cl, shs.-r : 0
2	10·5	14·8	SW : NNW	N : SE	1·5	0·0	0·06	189	0, d : 0 : 1, th-cl, h	0 : 0
3	10·4	14·9	SW : N	N : NNE	14·0	0·0	0·83	403	0 : 10 : v, li.-cl	v, li.-cl, w : 10
4	11·2	14·9	NNE : NE	ENE : NE	4·8	0·0	0·48	369	10 : v, li.-cl	0 : 0
5	6·2	15·0	N : NNE	N : NNW	4·6	0·0	0·36	362	0 : 0 : 10	v : v
6	12·4	15·1	NNW : NNE	ENE : NE	7·2	0·0	0·36	339	p.-cl : 0	0, w : 0
7	13·3	15·1	NE : ENE	ENE : NE	12·0	0·0	0·71	449	0 : 0	0, w : 0
8	13·1	15·2	NNE : NE	E	2·5	0·0	0·16	265	0, d : 0	0 : 0
9	8·3	15·2	E : NE	ESE : SSW : SW	1·2	0·0	0·01	148	0, d, m : 0	p.-cl : v, li.-cl
10	8·9	15·3	SW : WSW : W	SW : WSW : W	1·5	0·0	0·02	219	p.-cl : 4, th.-cl, so.-ha	5, li.-cl : 0
11	12·5	15·3	SW	W : S	0·3	0·0	0·00	137	0, d : 0, h	0 : 0
12	6·1	15·4	SE : S	S : SE	1·0	0·0	0·04	155	0 : 3, li.-cl : 8, th.-cl, so.-ha	10, th.-cl, so.-ha : 10 : 10
13	2·5	15·4	Variable : Calm	WSW : NNW	1·0	0·0	0·03	134	10, r : p.-cl, h	3, li.-cl : v, li.-cl : v
14	4·4	15·5	NNW : N	NNW : NW	1·8	0·0	0·12	215	p.-cl : 3, li.-cl, m : 3, cu.-s, li.-cl, h	6, li.-cl, h : 3, li.-cl : 2, li.-cl
15	1·3	15·5	NW	NNW : NW	6·5	0·0	1·11	452	10 : 10 : 10, so.-ha	v, li.-cl : 10
16	5·6	15·6	NNW	NNW	11·0	0·0	1·67	550	10 : 10, w	v, w : 10 : v
17	0·0	15·6	NNW : NW	NW : WNW : W	5·0	0·0	1·07	448	10 : 10, slt.-r	10, oc.-slt.-r : 10, r
18	0·3	15·7	WSW : N	NNW	6·2	0·0	0·41	349	10, fq.-r : 10	10 : 10
19	0·0	15·7	NNW	NW : NNW	5·3	0·0	0·98	427	10 : 10	10 : 10
20	0·0	15·8	NW : NNW	NNW : N : NNE	2·6	0·0	0·17	230	10 : 10	10, th.-r : 10 : v
21	3·7	15·8	N : NNE	NE : NNE	1·2	0·0	0·02	122	10 : 4, cu.-s, li.-cl	10 : 10
22	3·5	15·9	N	N : NNW	1·3	0·0	0·01	90	10 : 10, f : 10	p.-cl : 10
23	3·0	15·9	Calm : ENE	E : ENE : NE	4·0	0·0	...	136	2, li.-cl, m, d : 3, li.-cl	10, t, hy.-r : v : v
24	5·0	16·0	ENE : E	E : ENE	1·6	0·0	...	217	10, sh.-r : 10 : v, li.-cl	2, li.-cl : 1, th.-cl, so.-ha : 10
25	7·1	16·0	ENE : NE	Variable	0·0	0·0	...	158	10 : 10 : v, li.-cl	2, li.-cl : 0 : 10, f
26	1·0	16·0	Variable	Variable	1·6	0·0	...	85	10, f : 10, f : 0, h	v, h, glm : 0, m, d
27	7·6	16·1	Calm : NNE	ENE : E	1·3	0·0	...	129	v, f : 10, f : 0, h	0, h : v, ci.-cu : 0, d, f
28	10·7	16·1	E : ESE	ESE	1·4	0·0	...	169	10, f : 10, f : 0	0 : 0 : 10, f
29	9·9	16·1	E : ENE	ENE : E	2·3	0·0	...	177	10, f : 10, f : 0	0 : 0
30	13·4	16·2	E : ESE	S	2·8	0·0	...	191	0 : 0	2, cu, li.-cl : 2, ci.-cu, li.-cl : 10, slt.-r, l, t
31	7·1	16·2	SSW : S	SSW : SSE	5·0	0·0	0·44	284	10, li.-shs : p.-cl, so.-ha	v, li.-cl : v, li.-cl, so.-ha, prh : v
Means	6·5	15·6	...	...	...	...	(23 days) 0·41	256		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 50°·7, being 1°·5 *higher* than
The mean *Temperature of the Dew Point* for the month was 45°·9, being 0°·6 *higher* than
The mean *Degree of Humidity* for the month was 69·8, being 5·2 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·309, being 0in·006 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·5, being 0gr·1 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 537 grains, being 1 grain *less* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 4·2.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·420. The maximum daily amount of *Sunshine* was 13·4 hours on May 30.

The highest reading of the *Solar Radiation Thermometer* was 143°·8 on May 30; and the lowest reading of the *Terrestrial Radiation Thermometer* was 29°·8 on May 2.

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

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

The *Greatest Pressure of the Wind* in the month was 14·0 lbs. on the square foot on May 3. The mean daily *Horizontal Movement of the Air* for the month was 256 miles; the greatest daily value was 550 miles on May 16; and the least daily value was 85 miles on May 26.

Rain fell on 6 days in the month, amounting to 0in·454, as measured by gauge No. 6 partly sunk below the ground; being 1in·549 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
June 1	In Equator	29·657	67·9	50·1	17·8	58·8	+ 1·6	55·2	52·0	6·8	13·1	3·2	78	108·3	49·2	0·026	3·7	vP, ssN : ... : mP
2	...	29·759	69·0	45·4	23·6	56·5	— 1·2	51·3	46·5	10·0	17·3	1·7	69	124·0	39·4	0·000	4·3	mP : ... : ...
3	...	29·929	76·2	43·9	32·3	60·2	+ 2·2	54·0	48·5	11·7	25·0	1·3	65	131·8	37·7	0·014	0·0	vP : vP, vN : vvN, wP
4	...	30·044	64·8	55·5	9·3	59·8	+ 1·6	56·7	54·0	5·8	9·2	2·5	82	106·0	54·3	0·009	0·0	wP : mP : sP
5	...	30·116	71·1	52·5	18·6	60·9	+ 2·6	55·8	51·4	9·5	21·6	2·8	71	127·9	48·5	0·000	0·0	wP : vP, mN : vP
6	...	30·096	67·9	49·9	18·0	57·0	— 1·3	52·4	48·2	8·8	17·5	2·6	72	131·1	45·3	0·000	3·0	mP : vP, vN : mP
7	Full	30·038	79·1	48·8	30·3	64·1	+ 5·9	55·4	48·2	15·9	27·7	3·2	56	140·1	44·2	0·000	0·0	wP : vP, vN : mP
8	Greatest Declination S.	29·968	82·7	48·9	33·8	64·8	+ 6·6	57·6	51·6	13·2	25·3	3·0	62	145·2	43·4	0·000	0·0	sP : mP : vP
9	...	29·815	84·3	51·5	32·8	67·8	+ 9·6	59·8	53·5	14·3	28·6	0·8	60	141·2	46·0	0·000	0·0	vP : wP, mN
10	...	29·749	70·0	56·1	13·9	62·8	+ 4·6	56·9	51·9	10·9	21·1	4·4	68	115·1	50·8	0·000	0·0	wP : mP : vP, wN
11	...	29·781	72·3	50·4	21·9	60·8	+ 2·4	52·0	44·4	16·4	24·5	6·5	55	125·8	44·2	0·023	0·0	vP : vvP, ssN
12	...	29·871	64·1	45·1	19·0	54·6	— 4·0	49·0	43·6	11·0	20·9	2·5	66	127·0	44·0	0·000	0·0	sP : vP, wN : vP
13	Apogee	30·005	66·9	42·2	24·7	54·4	— 4·4	48·4	42·6	11·8	22·9	1·3	64	117·9	35·7	0·000	0·0	vP : vP : wP, wN
14	...	29·937	69·2	48·4	20·8	56·3	— 2·6	49·6	43·4	12·9	23·4	4·4	61	128·9	44·0	0·000	0·0	mP
15	Last Quarter; In Equator	30·023	67·7	42·6	25·1	54·1	— 4·9	47·0	40·0	14·1	23·0	4·8	59	136·0	36·2	0·000	0·0	sP : mP, wN : wP, wN
16	...	29·884	74·0	45·0	29·0	58·2	— 0·8	49·4	41·5	16·7	27·9	5·9	54	124·0	38·3	0·000	0·0	wP : vP, wwN : wP, vN
17	...	29·760	69·0	46·2	22·8	56·8	— 2·3	50·8	45·3	11·5	19·8	3·6	66	121·0	38·8	0·000	0·0	mP : sP : wP
18	...	29·556	75·8	45·4	30·4	60·3	+ 1·1	53·0	46·6	13·7	25·3	3·4	61	129·2	39·2	0·000	0·0	vP : vP, wN
19	...	29·534	68·0	51·7	16·3	58·3	— 1·2	55·1	52·2	6·1	12·2	1·2	80	115·9	47·5	0·088	0·0	wP, sN : sP : mP
20	...	29·814	75·0	46·3	28·7	60·3	+ 0·4	52·8	46·2	14·1	29·3	0·4	60	130·9	40·7	0·000	0·0	vP : vP, wN
21	...	30·103	76·7	47·2	29·5	62·9	+ 2·6	53·7	45·9	17·0	25·3	7·8	54	142·8	40·0	0·000	0·0	mP : wP, wwN : vP
22	New: Greatest Declination N.	30·176	79·0	57·2	21·8	65·8	+ 5·1	60·0	55·3	10·5	19·0	4·4	69	133·7	54·2	0·007	0·0	mP : mP : mP, wN
23	...	30·217	83·8	55·9	27·9	68·6	+ 7·6	62·2	57·2	11·4	24·8	2·5	66	123·0	51·3	0·000	0·0	sP : vP : mP
24	...	30·261	76·8	52·4	24·4	65·7	+ 4·5	60·9	56·9	8·8	15·5	2·0	74	124·7	47·5	0·000	0·0	mP : vP
25	Perigee	30·206	81·3	49·3	32·0	64·1	+ 2·8	54·8	47·1	17·0	34·2	0·2	53	137·0	43·2	0·000	0·0	vP : mP : mP
26	...	29·980	83·8	51·2	32·6	67·1	+ 5·7	58·3	51·3	15·8	25·8	4·7	57	142·0	46·2	0·000	0·5	mP : vP : wP, wwN
27	...	29·777	80·2	55·0	25·2	68·4	+ 7·0	57·7	49·3	19·1	26·5	5·3	51	128·8	49·6	0·000	1·5	wP : vP, wN : vP, wN
28	In Equator	29·741	77·9	51·9	26·0	64·2	+ 2·9	56·8	50·7	13·5	25·5	5·0	61	144·8	44·9	0·000	1·2	sP : wwP, wN : mP
29	First Quarter	29·556	74·8	57·1	17·7	64·0	+ 2·8	58·8	54·4	9·6	20·3	3·6	71	124·0	53·0	0·024	3·8	wP : vP : mP
30	...	29·565	74·0	56·0	18·0	62·8	+ 1·6	57·1	52·3	10·5	22·7	2·3	69	138·4	52·3	0·016	1·5	wP
Means	...	29·897	74·1	50·0	24·1	61·3	+ 1·9	54·8	49·1	12·3	22·5	3·2	64·5	128·9	45·0	Sum 0·207	0·6	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·897, being 0in·086 *higher* than the average for the 50 years, 1841-1890.

TEMPERATURE OF THE AIR.

The highest in the month was 84°·3 on June 9; the lowest in the month was 42°·2 on June 13; and the range was 42°·1.
The mean of all the highest daily readings in the month was 74°·1, being 3°·2 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 50°·0, being 0°·1 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 24°·1, being 3°·1 *greater* than the average for the 50 years, 1841–1890.
The mean for the month was 61°·3, being 1°·9 *higher* than the average for the 50 years, 1841-1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
June 1	0·2	16·2	S : SSE : SE	SW	2·3	0·0	0·07	187	p.-cl : 10, shs.-r	10, r : v
2	5·6	16·3	SW : SSW	SSW : ENE	0·7	0·0	0·02	157	0 : v, cu, cu.-s	10, sh.-r : 2, li.-cl : 0
3	8·8	16·3	Calm : N	N : NNE	1·7	0·0	0·04	121	0, d : 0 : v, li.-cl, h	p.-cl, t : 10, li.-shs
4	0·6	16·3	N : NNE	NNE : NE	0·5	0·0	0·00	133	10, li.-shs : 10	10 : v : 10
5	5·4	16·4	NNE : NE	NE : NNE	4·2	0·0	0·31	314	10 : 10 : 10, oc.-shs	v, li.-cl : 0
6	6·8	16·4	NNE	NNE : N	5·7	0·0	0·80	414	0 : 10 : p.-cl	v, li.-cl : v, li.-cl : 3, li.-cl
7	13·1	16·4	N : NNE	NE : NNE	4·6	0·0	0·60	411	v : p.-cl : 0	2, li.-cl : 0 : 0
8	12·7	16·4	N : NNE	NNE : ESE	3·5	0·0	0·08	222	0 : 0	2, li.-cl : 2, li.-cl
9	11·1	16·4	Calm : NNE	Variable	0·2	0·0	0·00	103	v, li.-cl, d : 0	0, slt.-h : 8, th.-cl, so.-ha : 10
10	0·0	16·5	Calm : N	NNE : N	1·6	0·0	0·04	200	10 : 10	10, th.-cl, so.-ha : p.-cl
11	2·4	16·5	NNW : N	WNW : W	3·0	0·0	0·15	257	p.-cl : 8, ci.-cu, li.-cl	6, ci.-cu, li.-cl : 6, ci.-cu. li.-cl : 10, shs.-r
12	6·3	16·5	NNW : NW	N : NE : SE	2·6	0·0	0·21	267	10 : 8, cu, li.-cl	8, n, cu : v, so.-ha : 0
13	2·0	16·5	Calm : SW : NW	NW : WSW : SW	2·5	0·0	0·06	182	0, d : 0, h, slt.-f : 7, cu.-s	9, cu.-s, li.-cl : 10, glm, slt.-r : 10
14	2·5	16·5	WSW : N	N : NNE : NE	1·8	0·0	0·08	218	10 : 10 : p.-cl	v, cu.-s, li.-cl : v, cu.-s, n
15	9·4	16·5	NNE : N	N : NE : S	1·0	0·0	0·05	197	p.-cl : v, cu.-s, li.-cl	v, li.-cl : 0, t
16	9·1	16·5	WSW : NNW	SSW : SW	2·3	0·0	0·10	224	0 : 0 : v, li.-cl	5, li.-cl : 3, li.-cl : 0
17	4·7	16·6	SW : N	E : ESE	1·7	0·0	0·06	180	0 : 0 : 2, cu.-s, li.-cl, h	v, li.-cl : v, li.-cl : 0
18	4·1	16·6	SE : NE : N	WSW : ESE : E	0·2	0·0	0·00	124	0 : 9, ci.-cu, cu.-s, th.-cl, m, slt.-f	p.-cl : 6, ci.-cu, li.-cl : 10
19	0·0	16·6	N	N : E	0·0	0·0	0·00	115	10, slt.-r : 10, r	10 : v, li.-cl : 3, li.-cl
20	7·3	16·6	SW : NW	W : SW	2·7	0·0	0·10	231	3, li.-cl, m, d : 0 : v, th.-cl, h	3, cu.-s, li.-cl : 2, li.-cl : 0
21	11·5	16·6	SW	SW : SSW : S	1·5	0·0	0·04	224	0 : 0 : 2, li.-cl	v, li.-cl : 2, li.-cl : 10
22	1·3	16·6	S : SSW : SW	SW : WSW	0·5	0·0	0·03	197	10 : 10, li.-shs : 10	v : v : 0
23	5·2	16·6	SW : WSW	NW : NNW : N	0·9	0·0	0·03	197	0 : 0 : v, li.-cl, h	p.-cl : 10
24	0·5	16·6	NNW : N : NNE	NE : E	1·0	0·0	0·02	154	10 : p.-cl, th.-cl, h : 10, glm, slt.-f	10 : v : 0
25	12·6	16·6	E : NE : N	N : NE : E	0·5	0·0	0·00	122	0, m, d : 0 : 2, cu.-s, li.-cl	1, li.-cl : 1, th.-cl
26	5·5	16·5	WSW : S	SW	0·7	0·0	0·01	147	2, li.-cl : 4, ci.-s, li.-cl, so.-ha	4, th.-cl, t : v : v, l
27	5·8	16·5	WSW : SW	WSW : W	2·0	0·0	0·12	250	10 : 3, li.-cl : 10	p.-cl : p.-cl : 0
28	6·8	16·5	WSW : SW	SW	2·7	0·0	0·19	266	0 : 0 : 5, cu.-s, li.-cl	6, li.-cl : 10, oc.-slt.-r : 10, slt.-r
29	1·4	16·5	S : SW	SW	2·5	0·0	0·15	256	10, li.-shs : 10	10 : v, sh.-r : v, sh.-r
30	3·0	16·5	SW	SSW : SSE	2·6	0·0	0·18	281	10 : 10	v : 10 : 10, shs.-r
Means	5·5	16·5	...	...	...	...	0·12	212		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 54°·8, being 0°·2 *lower* than the average for the 50 years, 1841–1890.
The mean *Temperature of the Dew Point* for the month was 49°·1, being 2°·0 *lower* than the average for the 50 years, 1841–1890.
The mean *Degree of Humidity* for the month was 64·5, being 9·5 *less* than the average for the 50 years, 1841–1890.
The mean *Elastic Force of Vapour* for the month was 0in·349, being 0in·026 *less* than the average for the 50 years, 1841–1890.
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·9, being 0gr·3 *less* than the average for the 50 years, 1841–1890.
The mean *Weight of a Cubic Foot of Air* for the month was 531 grains, being *the same as* the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·335. The maximum daily amount of *Sunshine* was 13·1 hours on June 7.

The highest reading of the *Solar Radiation Thermometer* was 145°·2 on June 8; and the lowest reading of the *Terrestrial Radiation Thermometer* was 35°·7 on June 13.

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

The *Proportions of Wind* referred to the cardinal points were N. 10, E. 5, S. 7, W. 7. One day was calm.

The *Greatest Pressure of the Wind* in the month was 5·7 lbs. on the square foot on June 6. The mean daily *Horizontal Movement of the Air* for the month was 212 miles; the greatest daily value was 414 miles on June 6; and the least daily value was 103 miles on June 9.

Rain fell on 8 days in the month, amounting to 0in·207, as measured by gauge No. 6 partly sunk below the ground; being 1in·815 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Of the Air. Lowest.	Of the Air. Daily Range.	Of the Air. Mean of 24 Hourly Values.	Of the Air. Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Of Radiation. Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
July 1	...	29·498	73·3	55·3	18·0	62·5	+ 1·2	57·9	54·0	8·5	19·4	1·3	74	132·9	53·0	0·110	4·5	wP : vP, sN
2	...	29·481	71·2	54·4	16·8	61·5	+ 0·1	56·4	52·0	9·5	19·4	3·0	71	132·2	52·1	0·127	1·2	wP, sN : vP, sN : mP
3	...	29·867	70·8	53·4	17·4	60·9	− 0·8	55·4	50·6	10·3	17·6	4·0	69	132·2	49·4	0·004	3·8	wP : mP : mP
4	...	30·022	70·0	53·5	16·5	59·8	− 2·1	54·7	50·2	9·6	17·3	2·5	71	118·1	48·8	0·041	0·0	mP : sP : sN, vP
5	Greatest Declination S.	30·065	68·1	53·1	15·0	59·9	− 2·2	55·1	50·9	9·0	17·5	1·4	72	124·8	48·2	0·000	0·0	vP : mP : vP
6	Full	30·076	75·0	50·1	24·9	61·9	− 0·3	55·3	49·6	12·3	23·0	1·4	65	131·7	43·0	0·000	1·0	vP : vP : wP
7	...	30·041	83·0	49·2	33·8	65·0	+ 2·9	56·7	49·9	15·1	24·1	6·4	58	137·0	42·0	0·000	3·0	wP : wP : ...
8	...	29·962	83·8	51·9	31·9	68·3	+ 6·3	58·2	50·3	18·0	30·9	4·8	52	144·9	46·0	0·000	0·0	... : wP : mP
9	...	29·851	80·2	55·0	25·2	67·2	+ 5·2	58·9	52·3	14·9	26·7	6·5	59	135·0	48·0	0·000	0·5	mP : wwP, wN : vP
10	...	29·772	80·0	56·5	23·5	66·6	+ 4·5	57·5	50·2	16·4	27·4	6·5	56	142·6	53·0	0·000	1·5	vP : vP, vN
11	Apogee	29·673	78·2	58·1	20·1	65·9	+ 3·6	58·3	52·1	13·8	23·6	5·9	61	140·0	55·9	0·010	0·0	mP, sN : vP : vP, wN
12	...	29·513	66·8	54·7	12·1	60·6	− 2·0	53·9	48·0	12·6	20·5	1·3	63	120·0	49·3	0·117	0·0	vP, wwN : vP : mP
13	In Equator	29·660	78·8	50·2	28·6	63·3	+ 0·4	54·1	46·4	16·9	30·3	7·2	54	138·6	44·8	0·000	0·0	sP : vP, wN : wN, wP
14	...	29·630	72·2	55·4	16·8	63·2	+ 0·1	54·4	47·0	16·2	25·2	5·9	56	134·6	50·0	0·000	0·0	mP : vP, vN : mP
15	Last Quarter	29·793	69·8	51·1	18·7	60·8	− 2·4	53·2	46·5	14·3	20·3	6·0	60	109·8	46·0	0·000	0·0	vP : mP : sP
16	...	29·799	72·3	52·6	19·7	61·3	− 1·9	55·5	50·5	10·8	20·3	4·7	68	124·7	50·9	0·007	0·5	vP
17	...	29·675	82·0	52·5	29·5	67·1	+ 4·0	59·6	53·6	13·5	26·4	1·6	62	143·2	50·0	0·007	1·5	... : vP : mP
18	...	29·618	76·8	57·6	19·2	67·0	+ 4·0	60·7	55·7	11·3	19·7	1·1	67	135·2	54·8	0·192	6·5	mP : wP : vP, sN
19	...	29·485	72·0	54·6	17·4	62·9	− 0·1	57·9	53·7	9·2	21·8	1·1	72	133·2	52·1	0·013	7·5	vP, vN
20	Greatest Declination N.	29·423	68·0	54·4	13·6	59·8	− 3·2	57·2	54·9	4·9	9·4	2·4	84	113·6	52·2	0·243	6·0	vP, wwN : mP, ssN : mP
21	...	29·355	65·2	54·0	11·2	57·9	− 5·1	56·3	54·9	3·0	6·3	0·6	90	107·3	52·4	0·991	8·0	wP : vN, vP : ...
22	New	29·512	72·0	54·0	18·0	60·3	− 2·6	56·4	53·0	7·3	15·8	1·4	77	135·0	51·9	0·028	0·0	... : wP, vN
23	Perigee	29·722	72·0	51·3	20·7	61·4	− 1·4	56·0	51·4	10·0	19·8	1·8	70	126·0	48·6	0·000	3·2	wP : vP
24	...	29·600	72·5	54·7	17·8	63·9	+ 1·3	61·2	59·0	4·9	9·9	0·9	85	115·0	54·7	0·444	5·8	vP, vN : wP : wP
25	...	29·745	69·4	61·0	8·4	65·5	+ 3·1	63·0	61·0	4·5	5·9	3·2	85	100·1	58·0	0·137	0·2	wwP : sN, vP : mP
26	In Equator	29·686	77·5	60·4	17·1	67·2	+ 4·9	63·9	61·3	5·9	14·1	1·1	81	129·0	58·3	0·000	0·8	vP, ssN : mP : mP
27	...	29·567	73·3	56·0	17·3	64·7	+ 2·4	59·6	55·4	9·3	20·3	2·3	72	128·7	54·0	0·058	0·8	mP : vP, wwN
28	First Quarter	29·488	59·7	52·5	7·2	56·5	− 5·8	55·7	55·0	1·5	2·2	0·2	95	70·0	52·2	0·859	2·2	vN, vP : vP : ...
29	...	29·738	69·0	55·2	13·8	59·9	− 2·4	55·8	52·2	7·7	14·6	0·9	76	109·8	52·9	0·000	0·0	... : sP : sP
30	...	29·839	64·2	54·3	9·9	58·9	− 3·4	54·8	51·1	7·8	12·4	3·8	76	92·2	51·9	0·000	0·0	sP : vP : vP
31	...	29·842	71·1	54·7	16·4	60·8	− 1·5	56·6	53·0	7·8	17·5	1·3	76	134·1	50·0	0·000	0·0	wN, wP : mP : sP
Means	...	29·710	72·8	54·2	18·6	62·7	+ 0·2	57·1	52·4	10·2	18·7	3·0	70·2	124·9	50·8	Sum 3·388	1·9	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·710, being 0in·083 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 83°·8 on July 8; the lowest in the month was 49°·2 on July 7; and the range was 34°·6.
The mean of all the highest daily readings in the month was 72°·8, being 1°·2 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 54°·2, being 1°·1 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 18°·6, being 2°·3 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 62°·7, being 0°·2 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
July 1	7·4	16·5	S	SSW : SSE	5·7	0·0	0·34	304	10, li.-shs : 8, cu.-s, li.-cl	v, hy.-sh : v : v,l,oc.-shs
2	8·2	16·5	SSW : SW : WSW	WSW : SW	12·0	0·0	1·31	515	10, shs.-r, w : v, shs.-r, w	5, cu.-s, li.-cl, hy.-sh : 0
3	7·1	16·4	SW : WSW	W : NW	6·4	0·0	1·03	474	p.-cl : 7, cu.-s, li.-cl	p.-cl : v, sh.-r : 10
4	0·3	16·4	NNW : N	N : NW	1·3	0·0	0·01	172	10 : 10	10, glm, r : 10
5	1·6	16·4	NNW : N : NNE	NNE : SE : S	1·0	0·0	0·01	154	10 : 10 : p.-cl	10 : v : 10
6	4·9	16·4	SW : NNW	Variable : Calm	0·6	0·0	0·02	132	10 : 0 : 4,cu.-s,li.-cl	6, li.-cl : v, li.-cl : 0
7	7·9	16·3	SE : Calm : SW	SW : SSW : S	0·9	0·0	0·00	129	0 : 0 : 1, li.-cl, h	v, li.-cl : 0
8	13·4	16·3	SSW	SSW : SW	1·0	0·0	0·02	187	0 : 0	0 : 0 : 1, li.-cl
9	6·9	16·3	SW : WSW	SW : WSW	4·9	0·0	0·18	313	v, li.-cl : v, li.-cl, so.-ha	7, cu.-s, li.-cl : 3, li.-cl : 0
10	7·5	16·3	SW : WSW : W	WSW : SW	1·5	0·0	0·09	279	10 : 4, li.-cl	0 : 0 : p.-cl
11	6·3	16·2	SW	SW	4·5	0·0	0·27	259	10 : 10 : p.-cl	4, cu.-s, li.-cl : 10
12	6·4	16·2	SW : WSW : NW	NW	7·0	0·0	1·09	499	10, fq.-shs, w : 7, cu.-s, li.-cl, w	8, cu.-s, li.-cl : v, li.-cl : 0
13	11·3	16·2	W	W : WSW : SW	3·3	0·0	0·35	364	0 : 0	4, li.-cl : 10
14	7·4	16·1	WSW : WNW	WNW : W	6·5	0·0	0·84	463	10 : 7, cu.-s, li.-cl	p.-cl : 2, li.-cl : 1, li.-cl, s
15	2·8	16·1	W	W : WSW	2·2	0·0	0·25	324	1, li.-cl : p.-cl : 10	10 : 10 : v
16	0·0	16·1	SW : SSW	SW : SSW	1·9	0·0	0·10	234	p.-cl : 10, slt.-r : 10	10 : 10, slt.-r : 3, li.-cl
17	6·7	16·0	S : SSW	SSE : SW	1·3	0·0	0·02	185	0, d : 5, ci.-cu, li.-cl	v : 10, shs.-r
18	4·1	16·0	SW : SSW	S : E	2·0	0·0	0·10	217	10 : 7, cu.-s, li.-cl	10 : 10, hy.-r
19	8·1	16·0	S : SW	SW : SSW	8·0	0·0	0·69	429	10 : 10, sh.-r : v, li.-cl	v, cu, slt.-r, glm : 10 : 0
20	1·0	15·9	S : SSE	SSW : SW : WSW	12·5	0·0	0·85	427	p.-cl : 10, r : 10, c.-r	10, slt.-r, w : v, shs.-r
21	0·8	15·9	SSW : S : SSE	SW	3·4	0·0	0·12	265	10, li.-shs : 10, hy.-r	10, t.-sm, hy.-r : v, hy.-shs, l, t : 3, cu.-s, li.-cl
22	4·8	15·8	SW : WSW	NW : WSW	2·5	0·0	0·14	275	10 : v,cu,cu.-s, li.-cl	7, cu-.s, li.-cl, hy.-sh, l, t : 10
23	6·4	15·8	WSW : SW	WSW : SSW	2·0	0·0	0·18	286	10 : v, cu.-s, li.-cl	3, cu, li.-cl : v
24	1·0	15·7	SSE : SW	SW : SSW	7·0	0·0	0·97	473	10, hy.-r : 10	10 : 10 : v
25	0·2	15·7	SW : SSW	SSW	3·0	0·0	0·45	378	10 : 10, oc.-r : 10, hy.-sh	10 : 10
26	1·5	15·7	SW : SE	SSE : SSW	1·5	0·0	0·03	200	10, slt.-r : 10	p.-cl : 10 : v, l
27	3·1	15·6	SSW	SSW	5·5	0·0	0·33	335	10 : 10 : p.-cl, slt.-sh	v, ci.-s, th.-cl : v, r
28	0·0	15·6	NNE	N : NNW	0·7	0·0	0·02	196	10, c.-r : 10, c.-r	10, fq.-r : 10, th.-r
29	0·6	15·5	NW : SW : NNW	WNW : NNW : WSW	0·4	0·0	0·01	160	10 : 10	9, cu.-s, li.-cl : 10
30	0·0	15·5	N : SE	Calm : S	0·0	0·0	0·00	87	10 : v, h	10 : 10, m
31	2·2	15·4	NNE	NNE	1·7	0·0	0·05	224	10 : 10 : 9	v, cu.-s, li.-cl p.-cl
Means	4·5	16·0	...	...	...	...	0·32	288		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 57°·1, being 0°·7 *lower* than
The mean *Temperature of the Dew Point* for the month was 52°·4, being 1°·5 *lower* than
The mean *Degree of Humidity* for the month was 70·2, being 3·6 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·394, being 0in·022 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·4, being 0gr·2 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 526 grains, being 1 grain *less* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·3.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·282. The maximum daily amount of *Sunshine* was 13·4 hours on July 8.

The highest reading of the *Solar Radiation Thermometer* was 144°·9 on July 8; and the lowest reading of the *Terrestrial Radiation Thermometer* was 42°·0 on July 7.

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

The *Proportions of Wind* referred to the cardinal points were N. 4, E. 2, S. 13, and W. 12.

The *Greatest Pressure of the Wind* in the month was 12·5 lbs. on the square foot on July 20. The mean daily *Horizontal Movement of the Air* for the month was 288 miles; the greatest daily value was 515 miles on July 2; and the least daily value was 87 miles on July 30.

Rain fell on 16 days in the month, amounting to 3in·388, as measured by gauge No. 6 partly sunk below the ground; being 0in·918 *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Aug. 1	Greatest Declination S.	29·821	71·1	48·3	22·8	59·5	− 2·7	55·1	51·2	8·3	18·7	0·6	74	123·8	43·6	0·000	2·2	vP
2	...	29·545	72·1	54·4	17·7	60·8	− 1·3	57·7	55·0	5·8	15·8	2·1	82	135·9	52·0	0·042	7·8	vP : mP : vP, mN
3	...	29·380	62·9	52·5	10·4	57·8	− 4·3	55·3	53·0	4·8	8·6	1·3	84	109·5	49·8	0·328	1·2	mP : vP, sN : vP, vN
4	...	29·196	68·2	51·4	16·8	57·3	− 4·9	54·1	51·2	6·1	17·3	0·6	80	135·8	50·5	0·094	3·8	mP : vP, ssN : wP, ssN
5	Full	29·313	68·2	48·2	20·0	57·4	− 4·9	54·5	51·9	5·5	13·3	1·1	82	128·9	47·2	0·067	0·8	wP : wP : sN, vP
6	...	29·351	68·8	54·1	14·7	59·2	− 3·2	56·0	53·1	6·1	14·8	1·5	81	123·6	50·0	0·125	2·5	wP : vP, sN : sP
7	Apogee	29·610	70·2	51·2	19·0	58·3	− 4·2	54·5	51·1	7·2	17·3	1·4	77	124·0	47·9	0·206	0·7	mP : vP, sN : vP
8	...	29·687	73·9	51·4	22·5	60·5	− 2·0	56·2	52·5	8·0	19·6	0·6	75	137·3	48·7	0·214	1·0	mP : vP : vP
9	In Equator	29·584	73·7	55·2	18·5	63·5	+ 1·0	60·2	57·5	6·0	12·6	3·8	81	131·2	55·2	0·041	1·0	vP : mP : sP
10	...	29·568	75·8	57·5	18·3	65·2	+ 2·7	61·6	58·6	6·6	13·8	1·1	80	127·0	55·1	0·340	4·0	mP : mP, sN : vP, ssN
11	...	29·447	69·8	54·8	15·0	61·6	− 0·9	57·5	54·0	7·6	15·3	0·9	77	129·7	52·0	0·059	3·0	wP, wN : mP
12	...	29·631	69·7	52·5	17·2	59·5	− 3·0	55·9	52·7	6·8	14·0	2·0	79	137·0	50·1	0·068	0·0	wP : vP, vN : sP
13	Last Quarter	29·588	64·0	53·0	11·0	57·8	− 4·6	55·8	54·0	3·8	7·6	0·9	87	99·2	49·5	0·210	0·0	vP, ssN : vP, ssN : mP
14	...	29·802	71·0	52·0	19·0	60·6	− 1·7	56·6	53·2	7·4	14·8	1·2	77	130·0	48·7	0·009	0·0	mP : ... : ...
15	...	30·022	74·8	52·2	22·6	61·7	− 0·4	57·8	54·5	7·2	17·9	1·6	77	125·2	46·8	0·000	1·0	sP : sP : vP
16	Greatest Declination N.	30·050	73·0	57·5	15·5	64·9	+ 2·9	61·0	57·8	7·1	13·9	2·1	78	104·1	56·2	0·000	0·0	wP : wP : mP
17	...	30·042	77·8	55·0	22·8	65·3	+ 3·5	59·4	54·6	10·7	21·1	3·2	69	135·0	51·8	0·000	0·0	vP : wP : mP
18	...	29·968	79·0	53·0	26·0	64·8	+ 3·2	58·6	53·4	11·4	23·1	1·0	67	136·0	48·8	0·000	0·0	mP : wP : vP
19	...	29·905	82·2	51·6	30·6	66·5	+ 5·1	60·0	54·8	11·7	24·5	1·7	66	140·2	50·6	0·000	0·0	vP
20	New: Perigee	29·922	78·4	59·1	19·3	66·8	+ 5·5	62·5	59·1	7·7	14·3	2·2	76	135·2	56·5	0·000	0·0	mP : mP : vP
21	...	29·885	81·8	55·5	26·3	68·3	+ 7·2	63·6	59·9	8·4	17·7	1·1	74	135·8	52·2	0·000	0·0	vP
22	In Equator	29·713	81·3	62·3	19·0	70·2	+ 9·2	66·3	63·3	6·9	13·9	0·7	78	137·3	59·1	0·187	0·2	wP : vP, vN : vP
23	...	29·724	75·4	56·4	19·0	65·0	+ 4·1	60·5	56·8	8·2	17·3	1·9	75	137·0	54·5	0·000	2·3	vP : mP : sP
24	...	29·823	70·4	53·3	17·1	60·8	0·0	55·4	50·7	10·1	18·5	2·2	69	127·0	50·0	0·000	4·5	mP : vvP : vP
25	...	30·085	69·4	45·7	23·7	57·2	− 3·6	51·8	46·9	10·3	19·8	3·1	68	123·9	41·3	0·000	6·5	sP : vP : vP
26	...	29·925	68·7	55·2	13·5	60·4	− 0·4	57·8	55·5	4·9	7·0	2·1	85	108·1	53·0	0·152	6·2	vP, vN : vP : sP
27	First Quarter	29·686	71·8	56·0	15·8	62·2	+ 1·5	57·9	54·2	8·0	18·4	3·4	76	120·4	50·0	0·000	5·3	vP : vP : mP
28	...	29·975	74·3	53·1	21·2	62·6	+ 2·0	57·9	53·9	8·7	17·2	2·0	73	135·1	46·7	0·000	0·0	wP : mP : vP
29	Greatest Declination S.	30·009	76·8	57·1	19·7	64·6	+ 4·3	60·2	56·6	8·0	15·6	1·1	75	138·0	53·2	0·000	0·0	wwP : wP : mP
30	...	29·924	75·6	55·0	20·6	64·7	+ 4·6	58·5	53·3	11·4	20·9	1·7	67	138·5	50·0	0·000	0·0	wP : vP, vN
31	...	30·019	71·9	50·7	21·2	58·9	− 1·0	54·4	50·4	8·5	18·2	1·2	74	133·1	45·4	0·000	1·0	mP : vP : vP
Means	...	29·748	73·0	53·7	19·3	62·1	+ 0·4	57·9	54·3	7·7	16·2	1·7	76·2	128·5	50·5	Sum 2·142	1·8	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·748, being 0in·034 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 82°·2 on August 19; the lowest in the month was 45°·7 on August 25; and the range was 36°·5.
The mean of all the highest daily readings in the month was 73°·0, being 0°·2 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 53°·7, being 0°·7 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 19°·3, being 0°·5 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 62°·1, being 0°·4 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Aug. 1	4·8	15·3	NNE : NE	SE : E : S	0·3	0·0	0·01	110	p.-cl, d, m : 1, li.-cl, h	10, th-cl, so.-ha : 10, sh.-r
2	4·3	15·3	S : SSW	SSW : SW	3·4	0·0	0·22	289	10, shs.-r : 10, slt.-r	v, li.-cl, sh.-r : v, li.-cl : v, shs.-r
3	0·1	15·2	SSW	SSW : S : SSE	3·8	0·0	0·16	300	v, shs.-r : 10, oc.-slt.-r	10, shs.-r : 10, hy.-r
4	6·5	15·2	WSW	SW : WSW	2·7	0·0	0·12	274	v, shs.-r : 5, cu, li.-cl	v, hy.-shs, t : v
5	3·4	15·1	SW : WSW	SW : SSW : S	3·5	0·0	0·40	355	10 : v, cu.-s, li.-cl	10 : 10, hy.-shs, t: 10, oc.-r
6	1·8	15·1	SW : W	WSW : SW	5·6	0·0	0·68	431	10, shs.-r : 10	v, t.-sm, hy.-r : v, li.-cl
7	4·9	15·0	SW : WSW	WSW : SW	2·7	0·0	0·15	267	v : p.-cl : 8, cu.-s, li.-cl, hy.-r	5, cu.-s, li.-cl, slt.-r : 3, li.-cl : v
8	6·6	15·0	SW	SW : SSW : ESE	2·3	0·0	0·06	188	0, m, d : 1, cu.-s, ci.-s	v, cu.-s, th.-cl : 10 : 10, hy.-r
9	4·2	14·9	S : SW	SW : SSW	3·3	0·0	0·51	341	10, r : 10 : 10, slt.-r	v, li.-cl : 10, slt.-r
10	2·3	14·9	SSW	S : SE	8·5	0·0	0·08	171	10 : 10	10, slt.-r : p.-cl : v, t.-sm, hy.-r
11	10·1	14·8	WSW	SSW	8·9	0·0	1·12	442	0 : 0 : 10, r, w	2, li.-cl : 0 : 0
12	8·4	14·7	SSW	S	3·5	0·0	0·43	350	0 : 0 : v, hy.-r	v, li.-cl : 1, li.-cl
13	0·1	14·7	S : SE : ESE	W : SW	2·5	0·0	0·28	277	10 : 10, hy.-r	10, fq.-r, t : p.-cl, slt.-r : 0
14	4·6	14·6	SSW : SW : WSW	WSW : W	3·0	0·0	0·40	335	10 : 5, cu.-s, li.-cl	10 : v, r : v, li.-cl
15	0·7	14·6	WSW : SW	NNW : S	0·1	0·0	0·00	121	2, li.-cl : v, li.-cl	p.-cl : 10 : v
16	0·0	14·5	Calm : S	SE	0·0	0·0	0·00	90	10 : 10	10, t : 10
17	9·0	14·4	SE	SE : ESE	0·7	0·0	0·00	121	p.-cl, d : 10 : 3, th.-cl, so.-ha	2, li.-cl, ci : 0
18	10·9	14·4	ESE : Calm	SE	1·1	0·0	0·02	120	0, d : 2, li.-cl	2, li.-cl : 3, li.-cl : 0
19	10·5	14·3	Calm : SW	SW : SSW	1·0	0·0	0·04	142	0, d : 0	1, li.-cl : 0 : v, li.-cl
20	5·3	14·3	SW	WSW : SW	0·7	0·0	0·04	168	0, hy.-d : 10	v, li.-cl : v, li.-cl : 0
21	12·2	14·2	SW	SSW : SSE	0·9	0·0	0·04	159	0, hy.-d : 0 : 1, li.-cl	2, li.-cl : 0
22	3·5	14·1	Variable : Calm	S : SSW	2·5	0·0	0·11	182	0 : 10, t : p.-cl, hy.-shs, t	v, cu.-s, li.-cl : 2, li.-cl : v, t.-sm, hy.-sh
23	8·9	14·1	SW : SSW	SSW	4·0	0·0	0·46	318	10 : 10 : v, li.-cl	v, li.-cl : p.-cl : 0
24	5·4	14·0	SSW : SW : WSW	W : WNW : NW	2·0	0·0	0·16	294	0, d : 0 : 7, cu.-s, li.-cl	8, cu.-s, li.-cl : 3, li.-cl : 0
25	6·3	13·9	NW : SW	WSW : SSW	1·5	0·0	0·16	244	0, d : 0 : 2, li.-cl, slt.-h	v, li.-cl : 10 : 10
26	0·5	13·9	SSW	SW : SSW	5·8	0·0	0·55	381	10, shs.-r : 10, r : 10, fq.-r	10, oc.-slt.-r : v, li.-cl : 1, li.-cl
27	5·3	13·8	SSW	SSW : SW : WSW	11·0	0·0	1·20	507	10 : 10	7, cu.-s, li.-cl, w : 3, li.-cl : 0
28	9·8	13·8	SW : WSW	SW : SSW	2·7	0·0	0·18	306	0, hy.-d : 3, li.-cl	2, li.-cl : 1, li.-cl : 0, d
29	11·6	13·7	SW	SW : SSW	3·4	0·0	0·35	350	p.-cl : 0 : 1, li.-cl	1, li.-cl : 0 : 1, li.-cl
30	10·3	13·7	SW : WSW	W : WSW	7·3	0·0	0·76	426	0, d : 10 : 1, li.-cl	2, li.-cl, w : 0 : 0
31	7·7	13·6	WSW	W : SW	1·3	0·0	0·05	231	0, d : 0 : 2, cu.-s, li.-cl, h	3, li.-cl, slt.-h : 0, slt.-h : 0
Means	5·8	14·5	...	...	...	...	0·28	267		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 57°·9, being 0°·3 *higher* than
The mean *Temperature of the Dew Point* for the month was 54°·3, being 0°·1 *higher* than
The mean *Degree of Humidity* for the month was 76·2, being 0·6 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·422, being 0in·001 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·7, being *the same as*
The mean *Weight of a Cubic Foot of Air* for the month was 527 grains, being 1 grain *less* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 5·2.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·401. The maximum daily amount of *Sunshine* was 12·2 hours on August 21.

The highest reading of the *Solar Radiation Thermometer* was 140°·2 on August 19; and the lowest reading of the *Terrestrial Radiation Thermometer* was 41°·3 on August 25.

The mean daily distribution of *Ozone* for the 12 hours ending 9h. was 1·4; for the 6 hours ending 15h. was 0·1; and for the 6 hours ending 21h. was 0·3.

The *Proportions of Wind* referred to the cardinal points were N. 0, E. 3, S. 16, and W. 11. One day was calm.

The *Greatest Pressure of the Wind* in the month was 11·0 lbs. on the square foot on August 27. The mean daily *Horizontal Movement of the Air* for the month was 267 miles; the greatest daily value was 507 miles on August 27; and the least daily value was 90 miles on August 16.

Rain fell on 15 days in the month, amounting to 2in·142, as measured by gauge No. 6 partly sunk below the ground; being 0in·208 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Of the Air. Lowest.	Of the Air. Daily Range.	Of the Air. Mean of 24 Hourly Values.	Of the Air. Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Of Radiation. Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Sept. 1	...	29·921	78·0	46·4	31·6	61·3	+ 1·6	55·8	51·1	10·2	20·6	1·9	70	133·2	39·7	0·000	3·0	vP : mP, wwN
2	...	29·784	81·6	53·3	28·3	66·0	+ 6·3	60·1	55·3	10·7	20·1	1·9	69	138·0	44·5	0·000	0·0	wP : mP : vP
3	Apogee	29·817	80·1	52·4	27·7	65·6	+ 6·0	61·2	57·6	8·0	19·7	0·9	76	137·3	49·1	0·000	0·0	mP : vP : vP, wN
4	Full	29·904	77·1	56·2	20·9	66·4	+ 7·0	60·8	56·3	10·1	19·7	3·1	70	132·8	48·0	0·000	0·0	vP
5	In Equator	29·908	77·0	50·6	26·4	62·9	+ 3·6	56·9	51·8	11·1	21·9	3·0	68	137·3	45·3	0·000	0·0	wP : vP : sP
6	...	29·915	76·9	57·4	19·5	66·4	+ 7·3	62·4	59·2	7·2	15·3	2·1	78	132·9	50·8	0·020	0·0	wwP : vP : vP, sN
7	...	29·839	81·0	59·9	21·1	68·3	+ 9·4	64·5	61·5	6·8	15·6	1·5	79	134·2	55·0	0·797	0·0	vP, vN : vP
8	...	30·028	76·2	56·3	19·9	64·6	+ 5·9	59·7	55·6	9·0	17·9	2·7	73	132·7	48·7	0·000	0·0	vP : mP : mP
9	...	29·927	81·7	53·3	28·4	66·1	+ 7·6	62·0	58·7	7·4	17·5	0·8	77	137·9	47·8	0·000	0·0	mP
10	...	29·694	75·9	56·3	19·6	66·5	+ 8·2	62·4	59·1	7·4	15·8	2·5	78	126·6	54·7	0·077	3·5	wP : mP : vP, wwN
11	...	29·650	69·0	54·1	14·9	59·5	+ 1·4	54·8	50·6	8·9	17·3	1·5	73	129·0	48·9	0·007	4·5	wP : mP : vP
12	Last Quarter: Greatest Dec. N.	29·876	65·2	49·9	15·3	56·6	− 1·4	52·2	48·1	8·5	17·5	2·0	73	105·6	46·0	0·000	0·0	wP : vP : vP
13	...	30·041	66·0	48·5	17·5	56·4	− 1·5	51·9	47·7	8·7	14·6	3·0	73	115·2	41·7	0·000	1·0	vP : sP : vP
14	...	30·077	68·4	41·2	27·2	54·9	− 2·9	51·5	48·2	6·7	15·1	0·8	78	119·0	36·2	0·000	0·0	vP : vP : mP
15	...	30·134	66·9	46·1	20·8	55·9	− 1·8	53·5	51·2	4·7	12·6	1·4	86	115·6	41·0	0·000	0·0	wwP : vP : wP
16	...	30·112	72·6	46·8	25·8	58·5	+ 1·0	55·6	53·0	5·5	14·8	0·8	82	119·2	41·0	0·000	0·0	vP
17	...	29·991	74·7	50·1	24·6	58·8	+ 1·5	55·9	53·3	5·5	18·2	0·8	82	125·2	40·2	0·000	5·0	vP : mP : ...
18	New: Perigee: In Equator	29·894	77·0	52·4	24·6	62·0	+ 5·1	56·7	52·1	9·9	24·3	1·0	71	134·7	48·5	0·000	0·0	... : mP : sP
19	...	29·979	58·3	47·9	10·4	55·6	− 0·9	54·1	52·7	2·9	4·6	1·0	90	61·0	38·0	0·029	0·0	mP : vP : vP
20	...	30·193	66·2	42·4	23·8	53·8	− 2·3	50·0	46·3	7·5	16·4	0·9	75	121·2	33·3	0·000	0·0	vP : wP : sP
21	...	30·214	65·8	42·2	23·6	53·1	− 2·6	49·7	46·3	6·8	15·8	1·0	78	128·7	32·5	0·000	0·0	mP : vP : mP
22	...	30·159	72·3	41·7	30·6	55·7	+ 0·3	52·2	48·9	6·8	18·2	0·2	79	132·5	30·8	0·000	0·0	vP
23	...	30·085	80·8	48·5	32·3	60·0	+ 4·8	56·1	52·7	7·3	23·5	0·4	77	130·0	37·9	0·000	0·0	vP
24	...	30·034	87·3	52·2	35·1	66·7	+11·6	61·7	57·7	9·0	24·0	1·3	74	135·0	44·9	0·000	0·0	wP : mP : vP
25	Greatest Dec. S.: First Quarter	30·058	84·0	57·4	26·6	68·4	+13·4	63·3	59·3	9·1	22·1	0·9	72	138·2	50·0	0·000	0·0	wwP, wN : wwP : vP
26	...	30·109	84·2	55·4	28·8	67·2	+12·3	61·9	57·7	9·5	27·2	0·9	72	135·2	48·9	0·000	0·0	vP : mP : sP
27	...	30·058	83·2	57·1	26·1	67·5	+12·6	62·4	58·4	9·1	21·4	0·6	73	131·0	48·6	0·000	1·0	mP
28	...	30·064	80·5	54·3	26·2	65·1	+10·3	59·6	55·1	10·0	26·4	0·9	71	137·0	44·9	0·000	3·0	mP : mP : sP
29	...	30·023	77·6	55·2	22·4	64·1	+ 9·5	59·6	55·9	8·2	20·7	0·8	75	132·0	46·0	0·000	0·0	mP : vP : mP
30	...	29·845	78·0	54·3	23·7	62·9	+ 8·5	59·2	56·1	6·8	23·8	0·4	79	130·8	46·8	0·000	0·0	vP : mP : vP
Means	...	29·978	75·4	51·3	24·1	61·9	+ 4·7	57·6	53·9	8·0	18·8	1·4	75·7	127·3	44·3	Sum 0·930	0·7	...
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 50 years' observations, 1841–1890. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) are deduced from the corresponding temperatures of the Air and Evaporation by means of Glaisher's Hygrometrical Tables. The mean difference between the Air and Dew Point Temperatures (Column 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers.

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

The mean reading of the *Barometer* for the month was 29in·978, being 0in·172 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 87°·3 on September 24; the lowest in the month was 41°·2 on September 14; and the range was 46°·1.
The mean of all the highest daily readings in the month was 75°·4, being 8°·1 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 51°·3, being 2°·2 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 24°·1, being 5°·9 *greater* than the average for the 50 years, 1841–1890.
The mean for the month was 61°·9, being 4°·7 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Sept. 1	11·6	13·5	SW : SSW	S : ESE	0·6	0·0	0·00	131	0, hy.-d : 0	0 : v, slt.-r
2	10·9	13·4	E : SE : S	SSW : SW : WSW	3·3	0·0	0·18	235	10 : 0, slt.-m	0 : 0
3	7·8	13·4	Calm : SW	ESE : ENE : SSW	1·6	0·0	0·05	139	0, hy.-d : 0, f : 1, li.-cl	1, li.-cl, so.-ha : 1, li.-cl : v
4	5·1	13·3	SW : NW	SW : WSW	2·1	0·0	0·06	217	10 : 10	v, li.-cl : 0
5	10·5	13·2	S : SSW	SSW : SW	2·3	0·0	0·14	246	0, hy.-d : 0	1, li.-cl : v, li.-cl : p.-cl, th.-cl, lu.-ha
6	2·1	13·2	SSW : SW	S : ESE : E	0·2	0·0	0·00	115	10 : 10 : 8, cu.-s, li.-cl	p.-cl : 10 : 10, slt.-r
7	6·3	13·1	ESE : SW	WSW : NW : NNW	12·0	0·0	0·07	161	10 : 10, t.-sm, hy.-r, hl : v	v, li.-cl : 0 : p.-cl
8	8·0	13·0	NNE : NE	E : ESE	0·6	0·0	0·02	180	v, li.-cl, d : 2, li.-cl	0 : 0
9	9·5	13·0	ESE : E	E : SE	1·0	0·0	0·02	130	0, hy.-d : 0, f : 0	0 : 0
10	0·9	12·9	S : WSW	SW	2·8	0·0	0·23	275	p.-cl : 10 : 8, th.-cl	10, th.-cl, so.-ha : 10, slt.-r : v, r
11	7·6	12·9	SW : WSW	WSW	6·7	0·0	1·10	472	0, d : 0 : v, shs.-r, w	v, w : v, li.-cl
12	1·6	12·8	WSW : W	W	3·0	0·0	0·40	365	p.-cl, d : p.-cl : 10	10 : 10
13	4·2	12·7	W : NNW	N : NW : SW	1·1	0·0	0·07	201	10 : 4, li.-cl	3, li.-cl, h : 0, slt.-f
14	7·6	12·7	Calm : NE	NE : S	0·0	0·0	0·00	76	0, hy.-d, slt.-f : 0, slt.-f : 2, li.-cl, h	0, h : 0, slt.-m : 0, slt.-m
15	1·3	12·6	S : SW	NNE : E : SSE	0·0	0·0	0·00	115	p.-cl, hy.-d : 0 : 10, f, m	10 : 0
16	5·0	12·6	SSW : SW	WSW : SW	0·1	0·0	0·00	142	0, hy.-d : 10 : v, slt.-f	0, h : 0, d
17	2·5	12·5	SW	SW : SSW	3·0	0·0	0·08	237	10 : 10, f : 10	6, th.-cl : 3, li.-cl : 0, d
18	8·5	12·4	SW : SSW	SW	2·8	0·0	0·23	305	10 : 10 : 0	0 : 0, d
19	0·0	12·3	SW	N : NNE	0·5	0·0	0·01	141	0 : 10 : 10, f, glm, m.-r	10, m : 10 : 0
20	6·8	12·3	NNE : ENE	ESE : E	1·6	0·0	0·07	177	0, hy.-d, slt.-f : v, li.-cl	v, li.-cl : 0
21	6·4	12·2	E : NE	ENE	3·7	0·0	0·15	180	0, hy.-d : 10, slt.-f : 4, li.-cl	0 : 0
22	8·9	12·2	NE : ENE	E	0·9	0·0	0·04	158	0, f, hy.-d : 0	0 : 0, d
23	6·9	12·1	NE : Calm	E : ESE	0·2	0·0	0·00	71	f : f : 0, slt.-f	0 : 0
24	7·8	12·0	E : NE : Calm	SSW : ESE	0·4	0·0	0·00	113	p.-cl, hy.-d : 0, slt.-f : 0	1, li.-cl : 1, li.-cl, l : 0, l
25	8·2	11·9	Variable : Calm	WSW : SSW	1·4	0·0	0·03	143	10 : tk.-f : 0	0 : 0 : 0, slt.-m, d
26	8·2	11·9	Calm : ENE	ESE : E	1·2	0·0	0·09	161	0 : 0, f : 0	0 : 0
27	7·9	11·8	E : ENE	E : ESE	1·4	0·0	0·05	171	0, hy.-d : 0, slt.-m	0 : 1, li.-cl : 0
28	8·2	11·7	E	E : ENE	2·0	0·0	0·06	183	0, hy.-d : tk.-f : 0	0 : 0 : 5, li.-cl, d, m
29	8·1	11·7	NE : ENE	NE : ENE	2·4	0·0	0·10	199	0, hy.-d : tk.-f : 0	0 : 0, d
30	6·4	11·6	NE : NNE	E	1·3	0·0	0·05	149	f : 10, f : v	0 : 0 : 0, f
Means	6·5	12·6	...	...	...	...	0·11	186		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 57°·6, being 3°·4 *higher* than
The mean *Temperature of the Dew Point* for the month was 53°·9, being 2°·5 *higher* than
The mean *Degree of Humidity* for the month was 75·7, being 5·1 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·416, being 0in·037 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·6, being 0gr·4 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 531 grains, being 2 grains *less* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·517. The maximum daily amount of *Sunshine* was 11·6 hours on September 1.

The highest reading of the *Solar Radiation Thermometer* was 138°·2 on September 25; and the lowest reading of the *Terrestrial Radiation Thermometer* was 30°·8 on September 22.

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

The *Proportions of Wind* referred to the cardinal points were N. 3, E. 11, S. 8, and W. 7. One day was calm.

The *Greatest Pressure of the Wind* in the month was 12·0 lbs. on the square foot on September 7. The mean daily *Horizontal Movement of the Air* for the month was 186 miles; the greatest daily value was 472 miles on September 11; and the least daily value was 71 miles on September 23.

Rain fell on 5 days in the month, amounting to 0in·930, as measured by gauge No. 6 partly sunk below the ground; being 1in·321 *less* than the average fall for the 50 years, 1841-1890.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Oct. 1	Apogee	29·594	75·8	53·2	22·6	62·8	+ 8·7	59·2	56·1	6·7	16·7	0·6	79	134·2	45·2	0·006	2·2	... : vP
2	In Equator	29·341	62·2	41·5	20·7	54·6	+ 0·8	50·5	46·6	8·0	16·9	2·7	74	120·0	36·5	0·170	3·8	vP, wwN : vP
3	Full	29·292	65·2	39·4	25·8	50·6	− 2·9	47·0	43·2	7·4	13·5	3·1	76	111·1	33·2	0·048	0·5	vP
4	...	29·344	61·2	40·6	20·6	51·8	− 1·4	47·8	43·8	8·0	15·8	3·5	75	114·4	36·0	0·127	1·5	vP, vN
5	...	29·606	59·6	39·2	20·4	51·4	− 1·6	49·2	47·0	4·4	10·6	1·2	85	98·3	32·4	0·132	2·0	vP : ...
6	...	29·435	59·8	50·0	9·8	56·1	+ 3·4	55·0	54·0	2·1	4·4	1·3	92	71·2	48·5	1·046	3·0	... : vP
7	...	29·542	59·7	44·9	14·8	51·2	− 1·3	48·1	44·9	6·3	14·4	1·2	79	110·5	43·8	0·000	1·0	mP : vP, sN : vP, wN
8	...	29·159	56·8	49·4	7·4	51·8	− 0·3	50·2	48·6	3·2	8·2	1·2	89	70·1	42·8	0·302	3·0	vP, vN : sN, vP
9	...	29·039	54·8	49·7	5·1	51·6	− 0·1	49·7	47·8	3·8	8·2	0·6	87	66·3	44·0	0·069	0·0	vP, vN : vP : sP
10	Greatest Declination N.	29·529	51·0	41·5	9·5	48·2	− 3·1	45·9	43·4	4·8	7·8	2·3	84	56·0	36·0	0·032	0·0	vP, vN : vP, sN : vP
11	Last Quarter	29·918	55·9	37·7	18·2	47·0	− 4·0	44·1	40·8	6·2	11·2	1·8	80	90·7	33·1	0·004	0·5	sP
12	...	29·980	61·3	47·4	13·9	52·4	+ 1·8	49·1	45·7	6·7	12·0	2·7	79	101·0	42·5	0·000	1·5	vP : vP : sP
13	...	30·022	55·3	46·6	8·7	51·4	+ 1·1	48·7	45·9	5·5	8·6	2·1	82	67·3	41·4	0·000	0·0	mP : mP : sP
14	...	29·873	61·7	48·2	13·5	52·8	+ 2·7	50·0	47·2	5·6	10·6	1·0	81	106·0	44·0	0·000	0·0	sP : mP : vP
15	...	29·780	66·2	45·5	20·7	54·8	+ 4·9	53·4	52·0	2·8	8·1	0·4	90	109·0	37·8	0·110	0·0	vP : vP, vN
16	Perigee: In Equator	29·979	58·0	40·6	17·4	50·3	+ 0·5	47·8	45·2	5·1	10·9	1·1	83	94·0	33·5	0·037	0·0	vP : vP : ssP
17	...	30·306	55·3	37·4	17·9	44·2	− 5·4	41·8	39·0	5·2	12·4	1·6	81	104·3	30·6	0·000	0·0	sP
18	New	30·338	55·1	35·2	19·9	44·4	− 5·1	42·7	40·7	3·7	8·4	0·2	87	91·0	28·2	0·000	0·0	vP
19	...	30·203	53·0	41·2	11·8	48·4	− 0·9	46·4	44·2	4·2	8·0	1·1	86	64·0	32·0	0·000	0·0	vP : vP : sP
20	...	30·067	50·0	40·9	9·1	47·0	− 2·0	45·2	43·2	3·8	7·6	1·5	87	53·8	33·0	0·000	0·0	vP
21	...	29·853	52·4	37·8	14·6	44·8	− 4·0	42·8	40·5	4·3	11·1	0·9	86	83·7	30·3	0·000	0·0	vP
22	Greatest Declination S.	29·526	45·0	40·2	4·8	42·9	− 5·6	41·6	40·0	2·9	5·3	1·3	90	56·3	38·0	0·440	2·0	vP, vN
23	...	29·404	44·1	34·9	9·2	41·1	− 7·1	38·7	35·7	5·4	6·8	3·7	81	59·0	32·0	0·010	5·0	vP, vN : vP : sP
24	...	29·348	46·8	28·1	18·7	36·8	−11·1	34·4	31·0	5·8	12·3	2·2	80	72·0	23·2	0·000	0·0	vP : vP : ssP
25	First Quarter	29·358	48·1	31·0	17·1	37·9	− 9·7	35·9	33·2	4·7	12·2	0·9	84	85·1	24·2	0·000	0·0	sP : vP : vP
26	...	29·405	39·7	28·0	11·7	34·7	−12·7	33·5	31·6	3·1	5·8	0·4	88	49·0	20·0	0·000	0·5	vvP
27	...	29·573	43·5	29·4	14·1	35·9	−11·4	34·6	32·7	3·2	8·1	0·0	88	75·2	23·0	0·000	2·0	sP : vP
28	Apogee	29·588	46·9	27·4	19·5	35·1	−12·1	33·1	29·9	5·2	12·5	0·0	80	87·0	21·7	0·000	1·5	vP : vP, wN
29	...	29·667	40·1	32·3	7·8	36·5	−10·5	34·9	32·6	3·9	8·7	1·4	87	52·0	26·8	0·007	0·0	vP : vP : sP
30	In Equator	29·910	45·0	30·5	14·5	37·6	− 9·4	35·3	32·1	5·5	10·3	2·7	81	74·2	24·8	0·000	0·8	sP
31	...	29·813	50·8	39·0	11·8	46·2	− 0·6	44·6	42·8	3·4	6·3	0·4	89	65·3	32·8	0·151	2·2	vP, vN
Means	...	29·671	54·2	39·6	14·6	46·8	− 3·2	44·6	42·0	4·9	10·1	1·5	83·5	83·6	33·9	Sum 2·691	1·1	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·671, being 0in·045 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 75°·8 on October 1; the lowest in the month was 27°·4 on October 28; and the range was 48°·4.
The mean of all the highest daily readings in the month was 54°·2, being 3°·5 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 39°·6, being 3°·7 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 14°·6, being 0°·2 *greater* than the average for the 50 years, 1841–1890.
The mean for the month was 46°·8, being 3°·2 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Oct. 1	5·2	11·6	Calm : SE	S : SSW	3·7	0·0	0·23	214	tk.-f : 10 : 7, ci.-cu, li.-cl	3, li.-cl : v, oc.-slt.-r, lu.-ha
2	4·8	11·5	SSE : S : WSW	WSW : SW	10·3	0·0	1·41	473	10, r, w : 10	3,cu.-s,li.-cl: 5, li.-cl : 0
3	2·5	11·4	SW : S	WSW : SW	22·5	0·0	1·50	519	0 : 10 : 10, r	p.-cl, w : v, li.-cl, st.-w
4	5·2	11·4	SW : WSW	WNW : WSW	8·3	0·0	1·00	505	v, slt.-r : 10, shs.-r : v, li.-cl, w	v, hy.-sh : v, sq, sh.-r: 0
5	0·3	11·3	S : SW	SW : SSW	5·5	0·0	0·39	365	0, d : 4, li.-cl, so.-ha : 10	10, r : 10, w
6	0·0	11·2	SW : WSW : W	WSW : NNW	5·6	0·0	0·20	215	10, hy.-r, w : 10, c.-r	10 : 10, gt.-glm, sh.-r : 10
7	5·1	11·2	WSW : SW	SW : SSE	1·7	0·0	0·10	240	p.-cl, d : 2, li.-cl	v, li.-cl : th.-cl, lu.-ha
8	0·0	11·1	ESE	ENE : NNE	1·8	0·0	0·09	225	10, r : 10 : 10	10, slt.-r : 10, r
9	0·1	11·0	SSE : NNW	NW : W	4·2	0·0	0·46	274	10, r : 10, slt.-r, glm	10 : 10
10	0·0	11·0	W : NW	NNW : NW	4·1	0·0	0·21	260	10, shs.-r : 10	10 : v : v
11	1·5	10·9	SW : WSW : W	WNW : W : WSW	2·7	0·0	0·31	324	0, hy.-d : 2, li.-cl : p.-cl	v : v : 10
12	1·2	10·9	SW	WSW : SW	6·8	0·0	0·95	453	10 : 10 : p.-cl	4, ci.-cu, li.-cl : 0
13	0·0	10·8	WSW	WSW : SW	2·8	0·0	0·07	236	10 : 3, li.-cl : 10	10 : 10
14	3·4	10·7	SW : SSW	SW : Calm	0·8	0·0	0·01	132	10 : v, li.-cl	v, li.-cl : p.-cl : 10, slt.-f
15	1·7	10·7	SE : Calm	SW	0·5	0·0	0·01	110	f : tk.-f : p.-cl, slt.-f	10 : 10, fq.-r : 10, oc.-r, slt.-f
16	1·1	10·6	WSW : N	N : NNW	4·0	0·0	0·35	316	10, oc.-r : 10 : v	v, cu.-s, li.-cl : 0
17	5·0	10·5	N	NNE : NE	1·5	0·0	0·14	233	0, hy.-d : 0 : 1, li.-cl	1, li.-cl : 0, d
18	0·5	10·5	Calm : NE	E	0·4	0·0	0·00	99	v, f, ho.-fr : v	v, cu.-s, li.-cl : v, li.-cl
19	0·0	10·4	E : NE	E : ESE	0·0	0·0	0·00	89	v, d : 10	10 : 10
20	0·0	10·3	NE : Calm	SSW : SW	0·0	0·0	0·00	70	10 : 10, slt.-f	10, f, glm : v, f : v, f
21	0·2	10·3	WSW : SSW	SW : SSW	0·8	0·0	0·00	132	10, tk.-f : 10, f : v, ci.-cu	10 : 10 : v, slt.-f
22	0·0	10·2	N : NNE	N : NNE	6·1	0·0	0·59	325	10 : 10, slt.-r : 10, c.-r	10, c.-r, sc, w : 10, c.-r, w : 10, slt.-r, sc, w
23	0·0	10·2	N	NNE : N	4·9	0·0	0·55	381	10, shs.-r : 10	10 : 10
24	3·5	10·1	NNW : WSW	WSW : SW	1·1	0·0	0·02	209	0, ho.-fr : 0, ho.-fr : 0, h	v, li.-cl, h : 1, li.-cl : 1, li.-cl, l
25	6·3	10·0	WSW	WSW : SW	1·4	0·0	0·05	244	0, ho.-fr : 1, li.-cl	2, cu.-s, li.-cl : 2, li.-cl : 0, slt.-f, l
26	0·0	10·0	SW : N	N : NNW	1·9	0·0	0·10	180	0, ho.-fr : 10, ho.-fr : 10, th.-cl	7, th.-cl, so.-ha, h : v, h : v, li.-cl
27	1·5	9·9	WSW : W	WSW : Calm	0·9	0·0	0·00	153	0, ho.-fr : v, m	v, m, f : v, li.-cl, f, ho.-fr
28	5·5	9·8	Variable	SW : S	0·4	0·0	0·00	193	v, f, ho.-fr : 0, slt.-f	1, li.-cl : 2, li.-cl : 10, th.-cl, lu.-ha, slt.-f, li.-shs
29	0·0	9·8	NW	NNW	2·7	0·0	0·22	235	10, li.-shs : 10 : 10, glm, h	v, ci.-cu, li.-cl, slt.-r : 2, li.-cl
30	0·8	9·7	NNW : WSW	WSW : SW	2·0	0·0	0·20	302	0, ho.-fr : 0, f : 0, slt.-f	v, li.-cl, ci.-cu : p.-cl, li.-cl : 0, lu.-ha, h
31	0·0	9·7	SSW	SSW : SE	2·3	0·0	0·20	261	10, shs.-r : 10, slt.-sh : 10, oc.-shs	v, th.-cl, cu.-s, li.-sc : 10, fq.-r : 10, shs.-r
Means	1·8	10·6	...	...	...	...	0·30	257		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 44°·6, being 3°·4 *lower* than
The mean *Temperature of the Dew Point* for the month was 42°·0, being 3°·9 *lower* than
The mean *Degree of Humidity* for the month was 83·5, being 2·1 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·267, being 0in·042 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·1, being 0gr·4 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 542 grains, being 3 grains *greater* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·5.
The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·169. The maximum daily amount of *Sunshine* was 6·3 hours on October 25.
The highest reading of the *Solar Radiation Thermometer* was 134°·2 on October 1; and the lowest reading of the *Terrestrial Radiation Thermometer* was 20°·0 on October 26.
The mean daily distribution of *Ozone* for the 12 hours ending 9h. was 0·9; for the 6 hours ending 15h. was 0·1; and for the 6 hours ending 21h. was 0·1.
The *Proportions of Wind* referred to the cardinal points were N. 7, E. 3, S. 9, and W. 11. One day was calm.
The *Greatest Pressure of the Wind* in the month was 22·5 lbs. on the square foot on October 3. The mean daily *Horizontal Movement of the Air* for the month was 257 miles; the greatest daily value was 519 miles on October 3; and the least daily value was 70 miles on October 20.
Rain fell on 15 days in the month, amounting to 2in·691, as measured by gauge No. 6 partly sunk below the ground; being 0in·120 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Nov. 1	...	30·228	56·0	37·7	18·3	45·5	− 1·2	44·6	43·6	1·9	7·6	0·0	93	93·0	31·7	0·008	0·0	vP : vP : wwP
2	Full	30·069	50·1	34·6	15·5	42·4	− 4·1	40·6	38·4	4·0	9·9	0·0	86	79·3	29·3	0·000	0·0	wwP : wP : vP
3	...	29·775	50·0	32·8	17·2	42·8	− 3·5	42·0	41·0	1·8	5·2	0·2	94	67·0	27·9	0·033	0·5	... : vP, vN
4	...	29·528	52·7	44·5	8·2	48·5	+ 2·4	47·5	46·4	2·1	3·8	0·6	93	60·2	37·9	0·205	3·5	wwP : vP, vN : vP, vN
5	...	29·341	57·0	39·5	17·5	48·9	+ 3·0	48·5	48·1	0·8	4·8	0·0	97	69·5	33·4	0·191	3·0	mP : vN, vP : vP, sN
6	Greatest Declination N.	29·425	60·0	53·0	7·0	56·0	+10·5	52·3	48·8	7·2	9·9	1·0	77	91·3	47·0	0·000	3·5	wP : mP : vP
7	...	29·699	60·1	50·9	9·2	56·1	+11·0	54·4	52·8	3·3	5·8	1·2	89	68·3	49·4	0·190	4·5	wP : vP : wP
8	...	29·739	56·7	50·4	6·3	53·1	+ 8·5	52·3	51·5	1·6	2·6	0·0	94	58·7	50·1	0·319	0·0	vP
9	Last Quarter	29·600	57·3	45·9	11·4	52·6	+ 8·6	50·5	48·4	4·2	11·4	0·8	86	80·3	40·2	0·148	1·8	wwP, wN : vP, vN : vP
10	...	29·485	56·5	45·7	10·8	52·3	+ 8·7	50·4	48·5	3·8	6·8	0·4	87	80·0	40·0	0·093	7·0	wwP : wP : vP, vN
11	...	29·126	57·3	45·0	12·3	51·2	+ 8·0	48·5	45·7	5·5	12·8	2·4	82	99·2	40·5	0·357	6·0	vN, vP
12	In Equator	29·061	49·6	41·9	7·7	45·6	+ 2·7	43·7	41·5	4·1	5·2	2·7	86	62·0	36·7	0·123	2·3	vP, vN : sP
13	Perigee	29·458	54·9	43·2	11·7	47·2	+ 4·4	44·3	41·1	6·1	12·4	2·9	80	90·8	38·2	0·000	0·0	mP : sP : ssP
14	...	29·705	56·1	44·4	11·7	49·0	+ 6·4	46·5	43·8	5·2	11·4	2·1	82	94·9	38·0	0·078	1·0	mP : mP : sP, sN
15	...	29·739	59·6	39·3	20·3	49·1	+ 6·6	47·8	46·4	2·7	6·2	1·3	91	73·0	31·8	0·165	10·5	vP : vP, vN
16	New	29·573	64·0	45·1	18·9	57·4	+15·0	54·0	50·9	6·5	11·6	1·3	79	101·1	38·0	0·056	2·8	wP, wwN : mP : vP, wwN
17	...	29·972	55·3	40·0	15·3	47·3	+ 5·0	44·7	41·8	5·5	14·0	1·7	82	90·0	32·0	0·000	3·8	vP : sP
18	...	30·193	51·8	34·3	17·5	41·1	− 1·1	39·3	37·0	4·1	11·8	0·0	86	96·4	27·8	0·000	0·5	sP : vP
19	Greatest Declination S.	30·002	47·2	35·5	11·7	42·2	0·0	41·1	39·8	2·4	5·9	0·5	91	82·0	28·0	0·000	1·5	wP : mP : mP
20	...	29·782	51·1	46·1	5·0	48·8	+ 6·7	47·7	46·5	2·3	3·4	1·0	92	54·0	44·2	0·000	0·0	wP : wP : mP
21	...	29·866	50·9	42·9	8·0	47·9	+ 5·8	46·8	45·6	2·3	3·8	0·9	92	72·3	39·6	0·006	0·0	wwP : mP : sP
22	...	29·966	52·2	43·0	9·2	49·2	+ 7·0	48·1	46·9	2·3	7·8	0·6	92	56·2	40·0	0·060	0·0	vP : vP, vN
23	...	29·683	45·7	37·1	8·6	41·3	− 0·8	39·5	37·2	4·1	7·7	1·1	86	49·8	32·3	0·208	3·0	vN, vP : vP
24	First Quarter	30·038	42·7	36·3	6·4	39·7	− 2·4	36·8	33·1	6·6	8·5	3·8	78	57·3	32·4	0·000	1·0	mP : mP : vP
25	Apogee	30·034	43·2	40·6	2·6	42·2	+ 0·2	39·9	37·1	5·1	6·2	3·7	83	46·7	40·0	0·000	3·8	vP : mP : mP
26	In Equator	29·963	41·5	32·5	9·0	37·5	− 4·4	35·5	32·7	4·8	8·5	1·6	83	75·3	26·9	0·000	2·2	mP : vP : ssP
27	...	29·808	46·2	32·8	13·4	41·1	− 0·5	40·8	40·4	0·7	1·8	0·0	98	46·2	26·7	0·090	0·0	sP : vP : sP
28	...	29·674	50·1	37·5	12·6	44·7	+ 3·4	44·4	44·0	0·7	1·0	0·0	98	50·8	32·0	0·326	0·2	sP : vP : vP, vN
29	...	29·505	51·9	48·7	3·2	50·6	+ 9·6	50·2	49·8	0·8	1·6	0·2	97	51·9	43·0	0·223	0·8	wP : vP, vN
30	...	29·530	51·7	42·5	9·2	50·0	+ 9·3	48·3	46·5	3·5	6·3	1·4	88	52·5	36·5	0·010	0·0	wP : vP, wN : vP
Means	...	29·719	52·6	41·5	11·2	47·4	+ 4·2	45·7	43·8	3·5	7·2	1·1	88·1	71·7	36·4	Sum 2·889	2·1	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·719, being 0in·025 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 64°·0 on November 16; the lowest in the month was 32°·5 on November 26; and the range was 31°·5.
The mean of all the highest daily readings in the month was 52°·6, being 3°·8 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 41°·5, being 3°·9 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 11°·2, being 0°·1 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 47°·4, being 4°·2 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Nov. 1	3·7	9·6	E : ESE	ESE : E	1·1	0·0	0·01	133	v, slt.-f : tk.-f, v, li.-cl	v,ci.-cu,li.-cl : 1, li.-cl : p.-cl, f
2	0·5	9·5	ENE : E	E : ESE	4·4	0·0	0·28	204	p.-cl, f : p.-cl	8, ci.-cu : v, ci.-cu : v,li.-cl,slt.-f
3	0·0	9·5	E : ESE	SE : S	0·1	0·0	0·00	118	10, slt.-f : 10	10, fq.-r, sc : 10, shs.-r
4	0·0	9·4	S	SSE: SW: WSW	5·6	0·0	0·26	223	v, shs.-r : 10, shs.-r, slt.-f : 10, fq.-r	10, c.-r : v, hy.-sh : v
5	0·0	9·4	WSW : ENE	SW : SSW	17·0	0·0	1·38	341	v, f : 10,tk.-f,oc.-r : 10,oc.-th.-r	8, th.-cl, sc : 10, g, r, sc : 10, st.-w, th.-r, sc
6	1·8	9·3	SW	SW	10·5	0·0	2·62	697	v, w : 4, li.-cl, st.-w	v,cu.-s,li.-cl,w,so.-ha : 10 : v
7	0·0	9·2	SW	WSW : W	6·5	0·0	1·14	468	10, oc.-r : 10, fq.-r	10, oc.-slt.-r, w : 10, oc.-slt.-r, w
8	0·0	9·2	W : WSW	ESE: SSE: SSW	1·1	0·0	0·02	189	10, oc.-slt.-r : 10, oc.-slt.-r : 10, c.-r	10, c.-r : 10, oc.-slt.-r, slt.-f : 10, r
9	3·0	9·1	WSW : W	W : SW	4·0	0·0	0·33	346	10, fq.-r : 10, hy.-r : v,oc.-slt.-r,li.-cl	v, li.-cl : 0
10	0·2	9·1	SSW	SW : SSW	17·5	0·0	1·75	527	0 : 10, w	10, w : 10, c.-r, st.-w
11	3·8	9·0	SW: WSW	WSW : SW	19·0	0·0	1·55	508	10, hy.-r, st.-w : v : 2, ci.-cu, li.-cl	2, cu, cu.-s, li.-cl, sh.-r : v,fq.-hy.-shs,l : 10, l, fq.-r
12	0·3	9·0	WSW:SW:SSW	SSW : SW	6·1	0·0	0·34	335	10, hy.-sh : 10, c.-r	v, cu.-s, th.-cl : v : v, th.-cl
13	5·9	8·9	WSW : SW	WSW : SW	6·2	0·0	0·78	440	0 : 0	2,cu,ci.-cu,li.-cl : 0 : 0
14	5·7	8·9	SSW : SW	WSW	4·8	0·0	0·63	405	v, slt.-r : 10, v : 3,cu,li.-cl	cu, cu.-s, li.-cl : v, sh.-r : 0
15	0·0	8·8	S : SSE	S : SSW : SW	15·6	0·0	1·50	462	0 : 9	10, r, w : 10, c.-r : 10,oc.-slt.-r,sc,st.-w
16	5·3	8·8	SW : SSW	SSW : SW	21·0	0·0	3·74	785	10, shs.-r : 10, shs.-r : 1, li.-cl, st.-w	v,st.-w,slt.-sh : 0, st.-w : 0
17	2·6	8·7	S : SW	WSW	2·0	0·0	0·12	268	10 : p.-cl : 9	v, li.-cl, slt.-r : 1, li.-cl : 0
18	6·8	8·7	SW : SE	S : SE	0·1	0·0	0·00	156	0, ho.-fr : 0, f : 0, f	0 : 0 : 0, ho.-fr
19	2·9	8·6	E : ESE	SE	2·0	0·0	0·14	232	0, ho.-fr : 0, slt.-f : v, li.-cl	8,cu.-s,li.-cl : 10, m.-r : 10
20	0·0	8·6	SE	SSE : SE	2·1	0·0	0·24	252	10 : 10	10, oc.-slt.-r : 10
21	0·2	8·5	ESE : SE	ESE : SE : SSE	0·6	0·0	0·02	148	v : 7, cu.-s, li.-cl	9, ci.-cu, cu.-s, slt.-r : 10 : v, slt.-r
22	0·0	8·5	SSE : W	W : NNW	2·4	0·0	0·10	222	p.-cl : 10, slt.-f : 10, slt.-f	10 : v, slt.-sh : 10, r
23	0·0	8·4	W : N	NNE : NE	13·0	0·0	2·02	597	10, r : vv : 10, c.-r, st.-w, sn	10, st.-w, fq.-shs : 10, fq.-shs : 0, st.-w
24	0·1	8·4	NE	NE : ENE	14·0	0·0	2·63	746	0 : v : 10, w	10, st.-w : 10, st.-w
25	0·0	8·3	ENE	ENE : E	12·0	0·0	2·14	660	10, w : 10, st.-w	10, w : 10
26	0·6	8·3	E : ESE	ESE : S	3·5	0·0	0·25	260	10 : 10	10 : 0 : v,sc,th.-cl,slt.-f, ho.-fr
27	0·0	8·2	E : ESE	ESE	0·3	0·0	0·00	111	v, f : p.-cl, f : 10, fq.-r	10, fq.-r : v,p.-cl,ci.-cu : 0, f
28	0·0	8·2	E : ESE : SE	SE : S	0·3	0·0	0·00	133	10, tk.-f : 10, tk.-f, slt.-r	10, fq.-m.-r : 10, c.-r : 10
29	0·0	8·2	S : SSE	SSE : S	1·5	0·0	0·09	223	10 : 10, fq.-m.-r	10, c.-r : 10, fq.-r : 10, shs.-r
30	0·0	8·1	SSW: SW: WSW	WNW	3·2	0·0	0·39	377	10, oc.-slt.-r : 10, oc.-slt.-r	10, oc.-slt.-r : v : 0, lu.-ha
Means	1·4	8·8	...	...	...	...	0·82	352		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 45°·7, being 4°·1 *higher* than
The mean *Temperature of the Dew Point* for the month was 43°·8, being 4°·1 *higher* than
The mean *Degree of Humidity* for the month was 88·1, being 0·6 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·286, being 0in·042 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·3, being 0gr·5 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 543 grains, being 5 grains *less* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·164. The maximum daily amount of *Sunshine* was 6·8 hours on November 18.

The highest reading of the *Solar Radiation Thermometer* was 101°·1 on November 16; and the lowest reading of the *Terrestrial Radiation Thermometer* was 26°·7 on November 27.

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

The *Proportions of Wind* referred to the cardinal points were N. 3, E. 9, S. 11, and W. 7.

The *Greatest Pressure of the Wind* in the month was 21·0 lbs. on the square foot on November 16. The mean daily *Horizontal Movement of the Air* for the month was 352 miles; the greatest daily value was 785 miles on November 16; and the least daily value was 111 miles on November 27.

Rain fell on 20 days in the month, amounting to 2in·889, as measured by gauge No. 6 partly sunk below the ground; being 0in·623 *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Dec. 1	...	29.842	44.9	37.2	7.7	41.4	+ 0.8	40.5	39.4	2.0	4.0	0.2	93	60.2	30.4	0.000	0.0	sP
2	Full	29.967	48.7	36.3	12.4	42.2	+ 1.6	41.0	39.6	2.6	7.3	0.0	90	76.3	30.8	0.017	1.0	mP : ssP : sP
3	Greatest Declination N.	29.867	50.4	40.6	9.8	47.0	+ 6.2	44.5	41.7	5.3	9.2	3.0	82	52.8	35.0	0.000	0.5	mP : sP
4	...	29.827	49.2	39.6	9.6	44.9	+ 3.8	43.2	41.3	3.6	6.5	1.0	87	58.0	34.8	0.028	2.0	sP : vP, sN
5	...	29.450	56.0	48.0	8.0	52.8	+11.5	49.0	45.2	7.6	9.8	2.3	76	61.7	45.1	0.000	1.5	vP : mP : vP
6	...	29.311	51.1	37.6	13.5	45.5	+ 4.2	41.8	37.5	8.0	12.5	2.5	74	71.1	34.0	0.148	0.0	vP, vN : sP
7	...	29.484	40.3	33.8	6.5	36.7	− 4.3	34.0	30.1	6.6	10.8	3.0	77	60.3	29.1	0.000	0.8	vP, sN : sP : sP
8	...	29.901	38.4	32.0	6.4	34.9	− 5.7	32.9	29.7	5.2	6.7	3.4	81	45.1	26.0	0.000	2.2	sP : sP : ssP
9	Last Quarter: Perigee : In Equator	29.775	49.0	32.0	17.0	43.0	+ 2.7	41.4	39.5	3.5	5.0	1.3	87	53.2	23.9	0.009	0.0	vP : mP : vP
10	...	29.755	48.5	33.7	14.8	42.9	+ 3.0	41.1	38.9	4.0	9.2	0.8	86	51.9	27.5	0.033	0.0	vP, vN : ssP : sP
11	...	29.851	41.0	26.2	14.8	34.7	− 5.1	34.3	33.7	1.0	4.3	0.0	94	43.4	20.0	0.044	0.0	ssP : vP, sN
12	...	29.436	47.7	38.0	9.7	42.0	+ 2.1	40.7	39.1	2.9	6.8	0.2	90	56.1	32.0	0.259	2.8	vP, sN : vP, vN
13	...	29.183	43.1	35.5	7.6	39.3	− 0.8	35.9	31.4	7.9	10.8	4.3	74	63.0	30.3	0.000	2.2	sP
14	...	29.538	49.0	34.5	14.5	40.8	+ 0.6	39.2	37.2	3.6	7.6	0.0	87	50.0	29.0	0.119	2.0	sP : ssP : vP, ssN
15	...	29.129	51.5	35.3	16.2	45.4	+ 5.1	43.5	41.3	4.1	9.5	0.0	86	62.9	30.0	0.260	6.3	vP, vN : sP : ssP
16	New: Greatest Declination S.	29.021	43.8	36.1	7.7	40.5	+ 0.3	39.4	38.0	2.5	4.4	1.3	91	52.0	29.8	0.303	4.3	vP, vN
17	...	29.369	44.2	36.9	7.3	41.7	+ 1.7	40.7	39.5	2.2	3.7	0.9	93	56.0	32.2	0.188	4.5	vP, ssN : sP : sP
18	...	29.560	41.7	37.5	4.2	39.5	− 0.2	38.6	37.4	2.1	4.0	0.7	93	46.2	36.0	0.013	0.5	mP, sN : sP
19	...	29.683	38.5	35.1	3.4	36.7	− 2.6	35.2	33.1	3.6	5.5	1.9	87	39.1	29.2	0.000	1.5	vP : sP : ssP
20	...	29.773	38.8	35.1	3.7	36.7	− 2.3	35.6	34.1	2.6	4.3	1.9	91	41.0	29.2	0.000	0.0	sP
21	...	29.771	35.4	29.2	6.2	32.4	− 6.4	31.8	30.5	1.9	3.5	0.0	93	36.1	21.7	0.000	0.0	sP : vP
22	...	29.657	35.5	25.5	10.0	31.0	− 7.6	30.6	29.5	1.5	4.2	0.0	93	47.3	25.3	0.000	1.2	ssP : vP
23	Apogee: In Equator	29.549	37.2	32.2	5.0	34.0	− 4.4	32.8	30.7	3.3	4.9	2.2	87	64.2	29.0	0.000	3.8	vP : sP : sP
24	First Quarter	29.325	38.1	35.0	3.1	37.2	− 1.1	36.3	35.1	2.1	4.0	1.0	92	38.7	29.2	0.259	2.0	vP : vP, vN : vP, vN
25	...	29.477	36.3	32.0	4.3	33.5	− 4.8	32.7	31.2	2.3	3.9	0.6	91	36.3	31.9	0.095	6.0	vN, vP : wP : wP
26	...	29.686	37.2	31.6	5.6	33.5	− 4.9	33.1	32.4	1.1	3.8	0.0	95	37.2	31.2	0.156	1.0	wP : vP, vN
27	...	30.080	37.2	32.9	4.3	35.4	− 3.0	34.7	33.6	1.8	3.4	0.0	93	37.2	32.0	0.068	3.0	vP, vN : vP : vP
28	...	30.086	46.3	31.2	15.1	37.1	− 1.4	36.6	35.9	1.2	3.8	0.0	96	46.3	30.1	0.171	0.0	vP
29	...	29.737	48.3	46.1	2.2	47.2	+ 8.6	46.7	46.1	1.1	2.1	0.0	96	51.2	41.7	0.020	0.2	vP : sP
30	Greatest Declination N.	29.569	54.8	46.7	8.1	51.3	+12.7	50.2	49.1	2.2	4.6	0.0	92	58.9	44.6	0.316	0.8	vP, vN : vP
31	Full	29.748	51.1	39.7	11.4	48.9	+10.3	47.2	45.3	3.6	8.8	0.6	88	56.9	32.5	0.000	0.0	vP : sP
Means	...	29.626	44.3	35.6	8.7	40.3	+ 0.7	38.9	37.0	3.3	6.1	1.1	88.2	52.0	31.1	Sum 2.506	1.6	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·626, being 0in·165 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 56°·0 on December 5; the lowest in the month was 25°·5 on December 22; and the range was 30°·5.
The mean of all the highest daily readings in the month was 44°·3, being 0°·3 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 35°·6, being 0°·8 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 8°·7, being 0°·5 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 40°·3, being 0°·7 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1895.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Dec. 1	0·3	8·1	WSW : SW	WSW	0·4	0·0	0·02	222	v : 2, th.-cl, slt.-f	2, th.-cl, so.-ha : 1, th.-cl, lu.-co, lu.-ha slt.-f
2	2·4	8·1	WSW : SW	WSW : SW : SSW	2·1	0·0	0·11	262	1, ho.-fr : 0, ho.-fr	5, th.-cl : 8, oc.-slt.-r : 6,li. cl,lu.-ha
3	0·0	8·0	WSW : W	WNW : WSW	3·6	0·0	0·42	395	10 : 10, oc.-slt.-r	9, so.-ha : v, lu.-ha : 0
4	0·0	8·0	WSW : SW	WSW : SW	5·5	0·0	1·10	527	v, li.-cl : 8, cu.-s, th.-cl	10, fq.-shs : 10, shs.-r
5	0·0	8·0	SW : WSW	WSW : W	23·7	0·0	5·08	1002	10, w : 8, sc, st.-w	10, sc, st.-w : v, w
6	1·7	8·0	W : WSW	WNW : W	14·5	0·0	3·18	776	10 : v, shs.-r, w, hy.-sq, hl	0, st.-w : 0, w : 0, w
7	0·7	7·9	W	WNW	9·0	0·0	2·09	629	v, sn, w : 0, ho.-fr : 0, w	9,cu.-s, li.-cl : v, slt.-sn : 0, ho.-fr
8	0·0	7·9	WNW : W	W : WSW	1·5	0·0	0·13	320	1, li.-cl, ho.-fr : p.-cl, f, ho.-fr : 7, li.-cl, f	v, f, glm : v, f, ho.-fr
9	0·0	7·9	SSW : SW	WSW	4·0	0·0	0·27	351	v, ho.-fr : 10, oc.-shs : 9, ci.-cu, cu.-s, li.-cl	10 : 10
10	0·0	7·9	W : NW	NNW : WSW	1·7	0·0	0·05	253	10, shs.-r : 4, ci.-s, th.-cl	2, ci.-s, th.-cl, so.-ha : 0 : 0, ho.-fr, f
11	0·0	7·8	WSW : Calm : NE	SSE : E	0·0	0·0	0·00	101	0, ho.-fr : tk.-f : 10, tk.-f	10, f : 10 : 10, r
12	0·8	7·8	W : SW	SSW : W	16·0	0·0	0·76	442	10, r : 10, glm : 9, s	10, r, w, sc : 10, hy.-r, hl, w : vv, r
13	0·8	7·8	W	WNW : NW	10·2	0·2	2·08	730	0, ho.-fr, w : 1, li.-cl, w	p.-cl, w : 0, w : 0
14	0·0	7·8	NW : W : WSW	WSW : SSW	3·7	0·0	0·14	291	0, ho.-fr : 2, slt.-f, th.-cl, so.-ha	6, slt.-sh : 10, r : 10, r
15	0·0	7·8	SW : WSW	WSW : SSW	5·4	0·0	0·20	360	10, fq.-r : 10, slt.-r	10 : 0 : 0, l
16	0·1	7·8	SSW	SSW : SSE	2·7	0·0	0·17	319	0 : v, shs.-r : 10, c.-hy.-r	9, fq.-r : v : 10, r
17	0·2	7·7	SE	ESE	1·5	0·0	0·05	231	10, r : p.-cl : 9, ci.-cu, slt.-f	9 : 10 : 1, li.-cl
18	0·0	7·7	E : ESE	ESE	3·5	0·0	0·15	329	10, oc.-slt.-r : 10, slt.-r, sc	10, sc : 10
19	0·0	7·7	ENE : NE	NE	3·6	0·0	0·15	312	10 : 10	10 : v
20	0·0	7·7	NNE : N	NNE	0·9	0·0	0·09	214	10 : 10	10 : 10
21	0·0	7·7	NNE	NE : Calm	0·3	0·0	0·00	110	10 : p.-cl, ho.-fr : 10, f	10, th.-cl, slt.-f : tk.-f : tk.-f
22	0·1	7·7	E : Calm	ESE	2·2	0·0	0·02	129	tk.-f, ho.-fr : f : 1, li.-cl, slt.-f	v, f : 10, l
23	0·8	7·7	ESE	ESE	2·7	0·0	0·16	349	10 : 3, li.-cl, ho.-fr : 5, ci.-s, li.-cl	2, li.-cl, li.-sc : v : v
24	0·0	7·7	E	E : ESE	8·1	0·0	1·28	551	10, w : 10, w, sc, r	10, fq.-th.-r, sc : 10, fq.-r : 10, r
25	0·0	7·7	ENE	ENE	4·1	0·0	0·43	423	10, r : 10, sl : 10, slt.-sn	10 : 10, sl
26	0·0	7·8	ENE	ENE	1·6	0·0	0·10	302	10 : 10, sl, sn	10, r, sn : 10, slt.-r
27	0·0	7·8	ENE	ENE : ESE	1·7	0·0	0·08	300	10, slt.-r : 10, oc.-slt.-r : 10, m.-r	10 : 10
28	0·0	7·8	ESE	SE : S : SSW	2·2	0·0	0·06	221	10 : 10, slt.-f	10, r : 10, c.-hy.-r : 10, oc.-r
29	0·0	7·8	WSW	WSW : SW	1·0	0·0	0·00	189	10 : 10	10 : 10, slt.-f, glm, r
30	0·0	7·8	SW : WSW	WSW : W	...	...	...	369	10, fq.-r : 10, fq.-r	10, sc, oc.-slt.-r : 10
31	0·0	7·8	WSW : NNW	NNW : N : S	...	...	...	250	10, : 10, th.-r : 9, cu.-s, li.-cl	8, ci.-cu, li.-cl : v, slt.-f : v
Means	0·3	7·8	...	...	...	...	(29 days) 0·63	363		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was $38^{\circ}\cdot9$, being $0^{\circ}\cdot6$ *higher* than
The mean *Temperature of the Dew Point* for the month was $37^{\circ}\cdot0$, being $0^{\circ}\cdot5$ *higher* than
The mean *Degree of Humidity* for the month was 88·2, being 0·3 *less* than
The mean *Elastic Force of Vapour* for the month was $0^{in}\cdot220$, being $0^{in}\cdot004$ *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was $2^{grs}\cdot5$, being *the same as*
The mean *Weight of a Cubic Foot of Air* for the month was 549 grains, being 4 grains *less* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·033. The maximum daily amount of *Sunshine* was 2·4 hours on December 2.

The highest reading of the *Solar Radiation Thermometer* was $76^{\circ}\cdot3$ on December 2; and the lowest reading of the *Terrestrial Radiation Thermometer* was $20^{\circ}\cdot0$ on December 11.

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

The *Proportions of Wind* referred to the cardinal points were N. 4, E. 9, S. 6, and W. 12.

The *Greatest Pressure of the Wind* in the month was 23·7 lbs. on the square foot on December 5. The mean daily *Horizontal Movement of the Air* for the month was 363 miles; the greatest daily value was 1002 miles on December 5; and the least daily value was 101 miles on December 11.

Rain fell on 19 days in the month, amounting to $2^{in}\cdot506$, as measured by gauge No. 6 partly sunk below the ground; being $0^{in}\cdot736$ *greater* than the average fall for the 50 years, 1841–1890.

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

MAXIMA.			MINIMA.		
Greenwich Civil Time, 1895.		Reading.	Greenwich Civil Time, 1895.		Reading.
	d h m	in.		d h m	in.
January	1. 21. 10	29·936	January	3. 5. 40	29·288
	4. 22. 55	29·791		7. 2. 0	29·402
	10. 2. 45	29·775		11. 5. 10	29·675
	11. 10. 0	29·710		13. 6. 20	28·820
	13. 18. 25	28·945		14. 12. 15	28·776
	15. 10. 30	28·948		16. 5. 55	28·854
	16. 18. 55	28·927		17. 4. 10	28·815
	18. 23. 10	29·682		20. 5. 0	29·300
	22. 1. 0	29·830		23. 9. 45	29·343
	23. 23. 20	29·656		24. 18. 50	28·895
	30. 11. 35	30·288	February	2. 14. 0	29·748
February	4. 17. 35	30·046		6. 15. 30	29·608
	9. 10. 40	29·987		11. 4. 50	29·399
	14. 11. 0	30·158		15. 16. 0	30·063
	17. 0. 5	30·348		18. 23. 25	30·076
	20. 23. 35	30·182		22. 4. 0	30·111
	23. 0. 45	30·197		24. 17. 5	29·556
	25. 23. 5	29·834		26. 19. 58	29·512
	28. 9. 35	29·880	March	1. 16. 10	29·531
March	2. 11. 30	29·623		3. 11. 25	29·423
	5. 11. 5	29·779		10. 3. 45	29·248
	15. 9. 10	30·244		20. 3. 5	29·610
	20. 21. 45	29·813		21. 16. 45	29·715
	22. 21. 35	29·828		24. 13. 15	29·048
	25. 0. 0	29·370		25. 20. 30	28·884
	26. 21. 40	29·390		28. 12. 35	28·708
April	4. 23. 50	30·130	April	7. 3. 50	29·132
	12. 8. 50	30·215		18. 4. 10	29·433
	20. 9. 30	29·878		23. 4. 30	29·420
	23. 23. 35	29·599			

MAXIMA.			MINIMA.		
Greenwich Civil Time, 1895.		Reading.	Greenwich Civil Time, 1895.		Reading.
	d h m	in.		d h m	in.
April	25. 21. 0	29·300	April	25. 13. 5	29·227
	30. 7. 55	30·079		26. 4. 55	29·229
May	2. 9. 35	30·444	May	1. 12. 15	29·970
	4. 7. 0	30·360		3. 16. 5	30·270
	13. 8. 10	30·140		9. 15. 20	29·827
	23. 15. 10	29·777		18. 4. 35	29·379
	27. 9. 50	30·218		24. 16. 50	29·694
June	6. 0. 20	30·153		31. 1. 50	29·633
	11. 10. 10	29·829	June	10. 4. 20	29·714
	13. 8. 0	30·038		11. 18. 50	29·731
	15. 9. 30	30·069		14. 15. 20	29·889
	24. 23. 3	30·282		19. 1. 5	29·456
	30. 16. 10	29·589		29. 19. 15	29·481
July	6. 7. 3	30·094	July	2. 5. 30	29·336
	13. 7. 50	29·713		12. 1. 55	29·404
	15. 23. 55	29·838		14. 2. 55	29·560
	19. 23. 20	29·600		19. 5. 0	29·355
	20. 23. 30	29·476		20. 14. 55	29·260
	23. 20. 35	29·761		21. 13. 15	29·270
	25. 21. 25	29·790		24. 5. 40	29·494
August	1. 0. 30	29·906		28. 9. 55	29·430
	5. 9. 45	29·371	August	4. 4. 15	29·153
	8. 9. 50	29·723		6. 3. 30	29·179
	10. 2. 25	29·645		9. 4. 20	29·543
	12. 21. 20	29·680		11. 10. 30	29·404
	17. 9. 20	30·070		13. 13. 45	29·456
	25. 9. 35	30·132		22. 17. 45	29·672
	28. 23. 40	30·083		27. 15. 35	29·589
	31. 9. 5	30·055		30. 4. 35	29·879

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, 1895.	Reading.	Greenwich Civil Time, 1895.	Reading.	Greenwich Civil Time, 1895.	Reading.	Greenwich Civil Time, 1895.	Reading.
d h m	in.	d h m	in.	d h m	in.	d h m	in.
September 3. 6. 55	29·890	September 2. 10. 50	29·740	November 9. 21. 40	29·729	November 9. 6. 25	29·458
4. 22. 15	29·971	3. 20. 25	29·722	11. 14. 10	29·179	11. 1. 55	29·029
6. 10. 55	29·953	5. 16. 58	29·866	13. 22. 5	29·731	12. 13. 55	28·961
8. 10. 25	30·058	7. 4. 25	29·724	15. 5. 10	29·918	14. 14. 10	29·634
15. 9. 50	30·159	11. 4. 20	29·600	16. 0. 35	29·586	15. 19. 0	29·513
21. 9. 15	30·248	18. 16. 25	29·834	18. 10. 10	30·232	16. 15. 40	29·452
26. 10. 5	30·135	24. 16. 0	29·999	22. 8. 10	30·042	20. 14. 40	29·742
October 3. 2. 45	29·497	October 2. 5. 55	29·140	24. 8. 40	30·088	23. 12. 0	29·563
5. 1. 15	29·688	3. 13. 25	29·090	December 2. 10. 15	30·024	30. 0. 55	29·414
7. 9. 55	29·598	6. 3. 50	29·409	4. 9. 15	29·921	December 3. 7. 15	29·825
12. 22. 40	30·060	9. 4. 55	28·891	8. 21. 5	29·980	6. 9. 30	29·254
18. 10. 5	30·379	15. 17. 40	29·722	11. 10. 5	29·897	10. 2. 50	29·663
30. 9. 40	29·970	24. 22. 0	29·320	14. 9. 50	29·634	12. 18. 5	29·030
November 1. 19. 55	30·324	31. 6. 20	29·719	20. 20. 0	29·799	16. 7. 0	28·960
8. 9. 45	29·810	November 5. 21. 30	29·126	28. 1. 5	30·263	24. 17. 50	29·251
						30. 14. 5	29·508

The readings in the above table are accurate, but the times are occasionally liable to uncertainty, as the barometer will sometimes remain at its extreme reading without sensible change for a considerable interval of time. In such cases the time given is the middle of the stationary period.
The time is expressed in civil reckoning, commencing at midnight and counting from 0^{h} to 24^{h}.
The height of the barometer cistern above mean sea level is 159 feet: no correction has been applied to the readings to reduce to sea level.

HIGHEST and LOWEST READINGS of the BAROMETER in each Month for the YEAR 1895.

[Extracted from the preceding Table.]

MONTH, 1895.	Readings of the Barometer.		Range.
	Highest.	Lowest.	
	in.	in.	in.
January	30·288	28·776	1·512
February	30·348	29·399	0·949
March	30·244	28·708	1·536
April	30·215	29·132	1·083
May	30·444	29·379	1·065
June	30·282	29·456	0·826
July	30·094	29·260	0·834
August	30·132	29·153	0·979
September	30·248	29·600	0·648
October	30·379	28·891	1·488
November	30·324	28·961	1·363
December	30·263	28·960	1·303

The highest reading in the year was 30in·444 on May 2. The lowest reading in the year was 28in·708 on March 28.
The range of reading in the year was 1in·736.

MONTHLY RESULTS of METEOROLOGICAL ELEMENTS for the YEAR 1895.

MONTH, 1895.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR. Highest.	Lowest.	Range in the Month.	Mean of the Daily Maxima.	Mean of the Daily Minima.	Mean of the Daily Ranges.	Monthly Mean.	Excess of Mean above Average of 50 Years.	Mean Temperature of Evaporation.	Mean Temperature of the Dew Point.	Mean Degree of Humidity. (Saturation = 100.)
	in.	°	°	°	°	°	°	°	°	°	°	
January ...	29·521	53·8	20·3	33·5	37·7	29·5	8·2	33·7	− 4·8	32·4	29·3	83·7
February...	29·911	45·0	6·9	38·1	35·2	22·8	12·4	29·1	−10·4	27·4	21·6	73·1
March	29·570	63·0	25·3	37·7	51·1	36·4	14·7	42·8	+ 1·1	40·3	37·1	80·5
April	29·734	67·7	31·4	36·3	57·2	40·7	16·5	47·9	+ 0·8	45·1	42·0	80·6
May.........	29·907	86·2	37·8	48·4	67·5	45·5	22·0	55·9	+ 2·8	50·7	45·9	69·8
June	29·897	84·3	42·2	42·1	74·1	50·0	24·1	61·3	+ 1·9	54·8	49·1	64·5
July.........	29·710	83·8	49·2	34·6	72·8	54·2	18·6	62·7	+ 0·2	57·1	52·4	70·2
August	29·748	82·2	45·7	36·5	73·0	53·7	19·3	62·1	+ 0·4	57·9	54·3	76·2
September.	29·978	87·3	41·2	46·1	75·4	51·3	24·1	61·9	+ 4·7	57·6	53·9	75·7
October ...	29·671	75·8	27·4	48·4	54·2	39·6	14·6	46·8	− 3·2	44·6	42·0	83·5
November.	29·719	64·0	32·5	31·5	52·6	41·5	11·2	47·4	+ 4·2	45·7	43·8	88·1
December..	29·626	56·0	25·5	30·5	44·3	35·6	8·7	40·3	+ 0·7	38·9	37·0	88·2
Means	29·749	Highest. 87·3	Lowest. 6·9	Annual Range. 80·4	57·9	41·7	16·2	49·3	− 0·1	46·0	42·4	77·8

MONTH, 1895.	Mean Elastic Force of Vapour.	Mean Weight of Vapour in a Cubic Foot of Air.	Mean Weight of a Cubic Foot of Air.	Mean Amount of Ozone.	Mean Amount of Cloud. (0–10.)	RAIN. Number of Rainy Days.	Amount collected in Gauge No. 6 whose receiving Surface is 5 inches above the Ground.	WIND. From Osler's Anemometer. Number of Hours of Prevalence of each Wind referred to different Points of Azimuth. N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Number of Calm or nearly Calm Hours.	Mean Daily Pressure on the Square Foot.	From Robinson's Anemometer. Mean Daily Horizontal Movement of the Air.
	in.	grs.	grs.				in.	h	h	h	h	h	h	h	h	h	lbs.	miles.
January ...	0·162	2·0	555	1·2	6·9	19	1·617	220	60	24	89	100	103	33	93	22	0·36	303
February...	0·116	1·4	568	1·1	5·8	4	0·222	162	235	106	16	5	54	29	62	3	0·19	255
March	0·221	2·6	545	2·1	6·5	19	1·428	78	19	20	59	157	255	79	67	10	0·42	317
April	0·267	3·0	542	2·5	6·5	12	1·251	87	103	63	33	145	224	49	12	4	0·19	275
May.........	0·309	3·5	537	0·9	4·2	6	0·454	150	150	114	39	67	60	29	117	18	0·41	256
June	0·349	3·9	531	0·6	5·7	8	0·207	170	109	51	25	58	172	62	52	21	0·12	212
July.........	0·394	4·4	526	1·9	6·3	16	3·388	65	26	8	40	140	295	109	53	8	0·32	288
August ...	0·422	4·7	527	1·8	5·2	15	2·142	7	10	27	66	161	353	84	21	15	0·28	267
September.	0·416	4·6	531	0·7	2·6	5	0·930	28	95	189	56	67	184	57	15	29	0·11	186
October ...	0·267	3·1	542	1·1	6·5	15	2·691	113	32	51	40	79	247	109	51	22	0·30	257
November.	0·286	3·3	543	2·1	7·3	20	2·889	16	45	115	148	106	200	77	13	0	0·82	352
December..	0·220	2·5	549	1·6	7·6	19	2·506	41	70	135	54	49	156	195	35	9	0·63	363
Sums	...	...	...	...	...	158	19·725	1137	954	903	665	1134	2303	912	591	161	...	...
Means	0·286	3·2	541	1·5	5·9	...	...	...	...	...	...	...	...	...	...	...	0·35	278

The greatest recorded pressure of the wind on the square foot in the year was 36·0 lbs. on March 24.
The greatest recorded daily horizontal movement of the air in the year was 1002 miles on December 5.
The least recorded daily horizontal movement of the air in the year was 70 miles on October 20.

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

Hour, Greenwich Civil Time.	1895. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Midnight	29·528	29·939	29·593	29·736	29·919	29·909	29·718	29·754	29·987	29·678	29·735	29·628	29·760
1h.	29·523	29·934	29·589	29·732	29·916	29·908	29·713	29·750	29·984	29·674	29·731	29·628	29·757
2	29·523	29·932	29·582	29·727	29·912	29·903	29·705	29·744	29·981	29·668	29·731	29·630	29·753
3	29·520	29·927	29·574	29·722	29·910	29·899	29·700	29·742	29·976	29·660	29·728	29·626	29·749
4	29·514	29·924	29·568	29·719	29·909	29·900	29·698	29·739	29·973	29·657	29·724	29·620	29·745
5	29·506	29·924	29·567	29·721	29·912	29·903	29·699	29·742	29·977	29·655	29·725	29·616	29·746
6	29·504	29·924	29·566	29·729	29·917	29·906	29·704	29·748	29·983	29·656	29·723	29·619	29·748
7	29·507	29·928	29·567	29·733	29·921	29·911	29·711	29·753	29·990	29·663	29·725	29·623	29·753
8	29·515	29·935	29·567	29·737	29·923	29·911	29·712	29·757	29·995	29·671	29·731	29·630	29·757
9	29·520	29·938	29·569	29·741	29·921	29·910	29·711	29·760	29·999	29·674	29·731	29·638	29·759
10	29·522	29·940	29·570	29·743	29·920	29·909	29·708	29·760	29·999	29·675	29·735	29·645	29·760
11	29·518	29·942	29·569	29·743	29·918	29·906	29·708	29·758	29·992	29·672	29·730	29·638	29·758
Noon	29·512	29·937	29·565	29·737	29·910	29·902	29·706	29·753	29·988	29·667	29·718	29·629	29·752
13h.	29·504	29·929	29·559	29·735	29·905	29·894	29·705	29·750	29·979	29·663	29·709	29·620	29·746
14	29·505	29·920	29·554	29·729	29·898	29·887	29·704	29·745	29·969	29·662	29·702	29·615	29·741
15	29·513	29·917	29·552	29·724	29·892	29·881	29·703	29·739	29·961	29·662	29·699	29·617	29·738
16	29·519	29·914	29·553	29·722	29·888	29·876	29·701	29·737	29·957	29·662	29·697	29·618	29·737
17	29·526	29·916	29·559	29·722	29·885	29·872	29·701	29·735	29·955	29·668	29·700	29·619	29·738
18	29·530	29·923	29·566	29·725	29·886	29·874	29·705	29·736	29·957	29·677	29·703	29·619	29·742
19	29·535	29·927	29·573	29·734	29·890	29·879	29·712	29·740	29·965	29·681	29·706	29·624	29·747
20	29·540	29·929	29·579	29·745	29·898	29·887	29·719	29·749	29·971	29·684	29·711	29·628	29·753
21	29·542	29·930	29·581	29·751	29·906	29·899	29·728	29·754	29·975	29·688	29·716	29·631	29·758
22	29·542	29·933	29·583	29·755	29·910	29·903	29·730	29·758	29·978	29·689	29·720	29·631	29·761
23	29·540	29·935	29·584	29·758	29·909	29·905	29·731	29·757	29·979	29·689	29·724	29·636	29·762
24	29·536	29·935	29·581	29·756	29·907	29·905	29·729	29·757	29·978	29·688	29·726	29·634	29·761
Means 0h.–23h.	29·521	29·929	29·570	29·734	29·907	29·897	29·710	29·748	29·978	29·671	29·719	29·626	29·751
Means 1h.–24h.	29·522	29·929	29·569	29·735	29·907	29·897	29·710	29·749	29·978	29·671	29·718	29·627	29·751
Number of Days employed.	31	26	31	30	31	30	31	31	30	31	30	31	...

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

Hour, Greenwich Civil Time.	1895. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	32·7	27·3	40·1	44·0	50·1	55·0	58·0	57·2	56·3	44·9	46·0	39·8	46·0
1h.	32·7	26·7	39·7	43·6	49·5	54·0	57·4	56·7	55·7	44·5	45·4	39·7	45·5
2	32·6	26·5	39·2	43·4	48·9	53·0	56·9	56·3	55·4	44·1	45·2	39·6	45·1
3	32·5	26·3	39·1	43·1	48·4	52·6	56·5	56·0	54·6	44·0	45·2	39·3	44·8
4	32·6	26·2	38·9	42·9	48·2	52·2	56·2	55·7	54·1	43·8	45·1	39·2	44·6
5	32·6	26·3	38·9	42·7	47·9	52·7	56·5	55·8	54·0	43·4	45·1	38·9	44·6
6	32·7	26·2	38·9	42·8	48·9	54·5	57·7	56·2	54·0	43·4	44·9	38·8	44·9
7	32·8	26·1	39·2	44·1	51·2	57·1	59·4	58·0	55·0	43·5	44·8	39·0	45·9
8	32·8	26·5	40·2	46·1	54·4	60·3	61·4	60·6	57·5	44·3	45·1	39·2	47·4
9	33·4	27·2	41·9	47·9	58·4	63·2	63·9	63·6	61·9	46·2	46·0	39·5	49·4
10	34·1	28·8	43·9	49·7	60·6	65·6	65·8	65·4	65·8	48·0	47·3	40·1	51·3
11	34·9	30·7	45·7	51·2	62·3	67·6	67·2	66·8	68·7	49·6	48·7	40·9	52·9
Noon	35·6	32·2	47·1	53·2	63·6	68·6	68·9	68·3	71·0	51·2	49·9	41·6	54·3
13h.	36·0	33·2	47·9	54·2	64·6	69·7	69·3	69·3	72·8	52·0	50·2	42·1	55·1
14	36·3	33·8	48·5	54·5	64·8	70·5	69·5	69·8	73·5	52·1	50·6	42·4	55·5
15	35·9	33·6	48·4	54·5	64·4	70·9	69·4	70·0	73·0	51·4	50·1	42·1	55·3
16	35·3	32·9	48·0	54·2	63·5	70·0	69·1	69·1	71·3	50·5	49·3	41·7	54·6
17	34·6	31·9	46·8	53·1	62·3	68·8	68·2	67·3	68·5	49·2	48·6	41·3	53·4
18	34·0	31·2	45·3	51·6	60·4	66·9	66·5	65·5	65·4	48·1	48·1	41·0	52·0
19	33·6	30·4	43·9	49·4	57·9	64·6	64·5	63·3	62·5	47·1	47·4	40·6	50·4
20	33·2	29·7	42·8	47·7	55·2	61·6	62·4	61·5	60·6	46·6	47·0	40·6	49·1
21	33·1	29·1	42·0	46·4	53·1	59·0	60·7	59·9	58·7	45·9	46·7	40·4	47·9
22	32·9	28·5	41·2	45·5	51·7	57·5	59·6	58·9	57·8	45·5	46·4	40·1	47·1
23	32·7	28·2	40·5	44·8	50·9	56·3	58·7	58·1	57·2	44·9	45·9	39·8	46·5
24	32·5	27·8	40·0	44·3	50·4	55·1	58·0	57·1	56·5	44·5	45·5	39·8	46·0
Means 0h.–23h.	33·7	29·1	42·8	47·9	55·9	61·3	62·7	62·1	61·9	46·8	47·0	40·3	49·3
Means 1h.–24h.	33·7	29·2	42·8	48·0	55·9	61·3	62·6	62·1	61·9	46·8	47·0	40·3	49·3
Number of Days employed.	31	28	31	30	31	30	31	31	30	31	28	31	...

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

Hour, Greenwich Civil Time.	1895. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	31·6	26·1	38·5	42·6	47·9	52·0	55·1	55·5	54·8	43·4	44·7	38·7	44·2
1h.	31·6	25·6	38·3	42·5	47·5	51·3	55·0	55·3	54·5	43·2	44·4	38·5	44·0
2	31·6	25·4	38·0	42·2	46·9	50·7	54·6	54·9	54·0	42·9	44·2	38·4	43·7
3	31·6	25·3	37·9	42·1	46·6	50·4	54·4	54·7	53·5	42·8	44·1	38·2	43·5
4	31·6	25·2	37·8	42·0	46·3	50·0	54·3	54·6	53·2	42·6	44·1	38·1	43·3
5	31·7	25·2	37·7	41·8	46·0	50·3	54·4	54·4	52·9	42·3	44·0	38·0	43·2
6	31·8	25·2	37·6	42·1	46·8	51·4	55·1	54·8	52·9	42·4	43·9	37·8	43·5
7	31·8	25·1	37·9	43·0	48·4	52·9	56·0	56·1	53·6	42·3	43·8	37·9	44·1
8	31·8	25·3	38·7	44·4	50·3	54·6	56·8	57·6	55·5	43·0	43·9	38·1	45·0
9	32·3	25·9	39·9	45·4	52·5	56·0	57·6	58·9	58·3	44·2	44·6	38·3	46·2
10	32·8	27·1	41·2	46·4	53·5	57·0	58·3	59·8	60·4	45·2	45·6	38·7	47·2
11	33·4	28·6	42·2	47·1	54·1	57·7	59·0	60·4	61·5	46·1	46·6	39·2	48·0
Noon	33·9	29·7	43·1	48·0	54·6	57·9	59·5	61·1	62·3	47·0	47·3	39·6	48·7
13h.	34·1	30·3	43·5	48·6	54·7	58·3	59·9	61·4	62·8	47·4	47·3	40·0	49·0
14	34·1	30·8	43·8	48·9	54·8	58·8	59·8	61·6	63·0	47·6	47·5	40·1	49·2
15	33·8	30·7	43·6	48·8	54·7	58·9	59·7	61·6	62·8	47·3	47·2	39·9	49·1
16	33·5	30·3	43·2	48·7	54·3	58·4	59·8	61·2	62·1	46·9	46·8	39·7	48·7
17	33·0	29·6	42·6	48·1	53·6	58·1	59·4	60·1	60·7	46·2	46·5	39·5	48·1
18	32·7	29·1	41·8	47·2	53·0	57·2	58·6	59·3	59·4	45·6	46·2	39·5	47·5
19	32·2	28·5	41·0	46·1	52·1	56·3	58·0	58·6	58·4	45·0	45·7	39·2	46·8
20	31·9	28·1	40·4	45·2	50·7	55·4	57·2	57·8	57·5	44·6	45·4	39·2	46·1
21	31·9	27·6	39·9	44·4	49·7	54·2	56·6	57·1	56·5	44·1	45·2	39·1	45·5
22	31·8	27·1	39·3	43·8	49·0	53·5	56·1	56·5	55·9	43·7	45·0	38·9	45·1
23	31·6	26·8	38·9	43·3	48·5	52·8	55·5	56·0	55·5	43·5	44·6	38·7	44·6
24	31·4	26·5	38·5	43·0	48·2	52·1	55·1	55·4	55·0	43·1	44·3	38·6	44·3
Means { 0^h–23^h	32·4	27·4	40·3	45·1	50·7	54·8	57·1	57·9	57·6	44·6	45·4	38·9	46·0
Means { 1^h–24^h	32·4	27·4	40·3	45·1	50·7	54·8	57·1	57·9	57·6	44·5	45·4	38·9	46·0
Number of Days employed.	31	28	31	30	31	30	31	31	30	31	28	31	...

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

Hour, Greenwich Civil Time.	1895. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	29·4	20·9	36·4	40·9	45·6	49·1	52·5	54·0	53·4	41·7	43·2	37·3	42·0
1h.	29·4	20·5	36·5	41·2	45·3	48·7	52·8	54·0	53·4	41·7	43·2	36·9	42·0
2	29·6	20·1	36·4	40·8	44·8	48·4	52·5	53·6	52·6	41·5	43·0	36·8	41·7
3	29·8	20·4	36·3	40·9	44·7	48·2	52·5	53·5	52·4	41·4	42·8	36·8	41·6
4	29·6	20·3	36·3	40·9	44·2	47·8	52·5	53·6	52·3	41·2	42·9	36·7	41·5
5	29·9	19·8	36·1	40·7	43·9	47·9	52·5	53·1	51·8	41·0	42·7	36·8	41·4
6	30·0	20·3	35·9	41·3	44·6	48·4	52·8	53·5	51·8	41·2	42·8	36·5	41·6
7	29·8	20·1	36·2	41·7	45·5	49·0	53·0	54·4	52·2	40·9	42·7	36·5	41·8
8	29·8	19·6	36·8	42·5	46·3	49·6	52·8	55·0	53·7	41·5	42·5	36·7	42·2
9	30·3	20·1	37·4	42·6	47·2	50·0	52·4	54·9	55·2	41·9	43·0	36·7	42·6
10	30·6	20·8	38·0	42·9	47·3	50·0	52·2	55·2	56·0	42·1	43·7	36·9	43·0
11	31·0	22·7	38·2	42·8	47·1	49·8	52·5	55·3	55·9	42·4	44·4	37·1	43·3
Noon	31·3	24·1	38·6	42·8	47·1	49·5	52·2	55·5	55·7	42·6	44·5	37·1	43·4
13h.	31·2	24·7	38·6	43·1	46·5	49·5	52·6	55·3	55·4	42·7	44·2	37·4	43·4
14	30·9	25·4	38·7	43·5	46·6	49·8	52·3	55·3	55·3	43·0	44·3	37·3	43·5
15	30·6	25·3	38·4	43·3	46·7	49·7	52·2	55·1	55·3	43·1	44·1	37·2	43·4
16	30·7	25·1	37·9	43·3	46·6	49·5	52·6	55·1	55·2	43·1	44·1	37·2	43·4
17	30·4	24·2	37·9	43·1	46·2	49·7	52·5	54·4	54·6	43·0	44·2	37·2	43·1
18	30·4	23·7	37·7	42·7	46·5	49·4	52·2	54·2	54·5	42·9	44·1	37·6	43·0
19	29·6	23·0	37·6	42·6	46·9	49·5	52·6	54·6	54·9	42·7	43·8	37·4	42·9
20	29·4	23·0	37·5	42·4	46·4	50·1	52·8	54·6	54·8	42·4	43·6	37·4	42·9
21	29·6	22·3	37·3	42·1	46·3	49·9	53·1	54·7	54·5	42·0	43·5	37·4	42·7
22	29·6	21·8	36·9	41·8	46·3	49·9	53·0	54·3	54·2	41·6	43·5	37·4	42·5
23	29·4	21·3	36·9	41·6	46·0	49·6	52·6	54·1	54·0	41·9	43·1	37·3	42·3
24	29·1	21·1	36·5	41·5	45·9	49·2	52·5	53·9	53·7	41·5	42·9	37·0	42·1
Means { 0^h–23^h	30·1	22·1	37·3	42·1	46·0	49·3	52·6	54·5	54·1	42·1	43·5	37·1	42·6
Means { 1^h–24^h	30·1	22·1	37·3	42·2	46·0	49·3	52·6	54·5	54·1	42·1	43·5	37·1	42·6

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

Hour, Greenwich Civil Time.	1895. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
Midnight	87	76	87	89	85	81	82	89	90	89	91	91	86
1h.	87	77	89	91	86	82	85	91	92	90	92	90	88
2	88	77	90	90	86	84	85	91	91	91	92	90	88
3	89	78	90	92	87	85	86	91	92	90	91	91	89
4	88	77	92	93	87	85	88	93	94	90	92	91	89
5	89	75	91	93	87	84	86	91	92	91	91	93	89
6	89	77	90	94	85	79	83	91	92	92	93	93	88
7	88	76	90	91	81	74	80	88	91	90	93	91	86
8	88	74	88	88	74	68	74	83	87	90	91	91	83
9	88	74	86	83	67	62	66	74	79	86	90	90	79
10	86	72	79	78	62	57	61	70	71	80	88	89	74
11	85	70	75	74	57	52	59	67	63	76	85	86	71
Noon	84	71	73	68	56	50	54	63	58	73	83	85	68
13h.	83	70	71	66	52	49	55	60	54	71	81	84	66
14	81	70	69	67	52	48	54	59	53	71	79	83	66
15	81	71	69	66	53	47	54	59	53	74	81	84	66
16	83	72	68	67	55	48	55	60	56	77	83	85	67
17	84	72	72	69	56	49	57	63	61	79	85	86	69
18	86	72	75	72	60	54	61	67	68	83	87	88	73
19	86	72	78	77	67	58	65	74	77	85	88	89	76
20	86	75	82	83	72	67	71	78	82	86	89	89	80
21	87	75	84	86	78	72	76	83	86	87	90	90	83
22	87	76	85	88	82	75	80	85	88	87	90	90	84
23	87	74	88	89	84	78	81	86	89	90	90	91	86
24	87	75	88	90	85	81	82	89	90	89	91	90	86
Means 0h.–23h.	86	74	82	81	71	66	71	77	77	84	88	89	79
Means 1h.–24h.	86	74	82	81	71	66	71	77	77	84	88	89	79

TOTAL AMOUNT of SUNSHINE registered in each HOUR of the DAY in each MONTH, as derived from the RECORDS of the CAMPBELL-STOKES SELF-REGISTERING INSTRUMENT, for the YEAR 1895.

Month, 1895.	Registered Duration of Sunshine in the Hour ending 5h.	6h.	7h.	8h.	9h.	10h.	11h.	Noon.	13h.	14h.	15h.	16h.	17h.	18h.	19h.	20h.	Total registered Duration of Sunshine in each Month.	Corresponding aggregate Period during which the Sun was above Horizon.	Proportion of Sunshine.	Mean Altitude of the Sun at Noon.
	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h		°
January	...	...	...	...	...	0·9	1·5	3·8	3·2	5·0	3·3	...	...	...	...	...	17·7	259·1	0·068	18
February	...	...	...	...	0·9	3·5	6·1	6·3	8·0	8·7	6·2	3·0	...	...	...	...	42·7	277·9	0·154	26
March	...	...	0·1	3·6	5·9	7·7	9·6	11·3	12·6	12·1	12·1	9·2	3·5	...	...	...	87·7	366·9	0·239	37
April	...	...	1·2	4·0	4·1	6·0	7·7	10·8	10·9	9·8	10·6	10·4	10·2	3·6	...	...	89·3	414·9	0·215	48
May	...	5·0	10·7	12·6	16·5	19·1	18·4	18·4	19·3	18·4	16·3	15·6	15·8	10·9	5·7	...	202·7	482·1	0·420	57
June	1·6	11·9	14·3	13·1	12·0	13·0	12·3	11·8	10·1	11·8	15·0	11·8	10·7	9·0	6·5	0·8	165·7	494·5	0·335	62
July	0·4	4·8	8·1	8·3	11·0	11·9	10·4	13·1	10·9	11·1	11·7	12·1	10·6	9·4	5·8	0·3	139·9	496·8	0·282	60
August	...	0·5	8·1	14·3	14·7	13·3	14·1	17·4	16·2	18·4	17·7	16·8	15·3	10·9	2·3	...	180·0	449·1	0·401	52
September	...	...	1·8	4·6	15·4	18·8	21·0	22·5	23·3	24·1	24·2	22·3	14·4	2·4	...	...	194·8	376·9	0·517	41
October	...	...	...	...	2·0	6·5	7·2	8·8	8·9	9·7	7·2	4·1	1·0	...	...	...	55·4	328·7	0·169	30
November	...	...	...	...	1·1	6·4	8·4	7·6	6·0	6·0	6·0	1·9	...	...	...	...	43·4	264·4	0·164	20
December	...	...	...	...	...	0·1	2·0	1·3	2·5	2·0	...	...	...	...	...	...	7·9	242·7	0·033	16
For the Year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1227·2	4454·0	0·275	...

The hours are reckoned from *apparent* midnight.

READINGS of DRY-BULB THERMOMETERS placed in a STEVENSON'S SCREEN near the Ordinary Stand, and of those mounted in a louvre-boarded shed on the ROOF of the MAGNET HOUSE at an elevation of 20 feet above the GROUND; and EXCESS of the READINGS above those of the corresponding THERMOMETERS on the ORDINARY STAND, in the YEAR 1895.

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

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

JANUARY.

Days of the Month.	Readings of Thermometers in Stevenson's Screen, 4 feet above the ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h	Excess above readings of Thermometers on ordinary stand, 4 feet above the ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	36·3	29·0	30·4	34·5	34·8	32·9	+0·3	−0·2	−0·1	−0·2	−0·1	+0·1
2	41·0	29·1	33·2	39·5	40·1	36·9	+0·4	−0·5	−0·4	−0·2	+0·1	+0·1
3	36·9	32·4	32·6	32·6	35·0	33·8	0·0	−0·1	−0·1	−0·1	−0·1	0·0
4	37·7	33·0	34·8	36·4	36·7	36·1	+0·1	−0·4	+0·1	0·0	0·0	−0·3
5	37·2	32·3	36·2	36·5	35·3	32·9	+0·3	−0·1	0·0	−0·2	−0·2	+0·1
6	33·2	27·4	...	...	...	...	+0·2	−0·8	...	...	...	...
7	33·5	27·8	30·3	31·5	31·8	32·1	+0·4	−0·4	−0·1	+0·1	−0·1	−0·2
8	36·2	30·8	33·5	34·8	35·2	31·9	−0·4	−0·1	−0·2	−0·4	−0·3	0·0
9	33·0	31·0	32·1	32·3	32·4	31·9	−0·7	−0·1	−0·3	−0·2	−0·3	−0·1
10	32·7	24·9	25·9	29·1	29·9	25·9	+1·0	+0·2	−0·2	−0·2	−0·5	−0·1
11	28·9	24·2	28·0	26·9	27·8	26·3	+0·3	−0·8	−0·5	−0·2	−0·4	−0·3
12	32·2	22·8	24·9	30·7	30·3	28·4	0·0	−0·2	−0·2	−0·4	−0·2	−0·1
13	42·0	27·1	...	...	...	...	−1·4	−0·3	...	...	...	...
14	42·7	36·4	38·2	39·9	41·6	40·0	−0·4	+0·6	−0·3	−0·1	−0·1	−0·2
15	40·8	37·5	38·2	39·0	39·8	40·1	−0·3	−0·3	−0·2	−0·2	−0·1	+0·1
16	44·5	38·1	40·4	43·6	44·5	43·2	−0·3	−0·1	−0·3	+0·1	−0·1	−0·1
17	44·3	38·4	41·5	42·1	43·3	39·6	−0·4	−0·1	−0·1	−0·3	−0·1	0·0
18	45·2	34·0	38·8	42·8	44·8	38·3	−0·7	0·0	+0·1	−0·8	+0·1	−0·2
19	45·0	37·1	42·8	44·6	43·2	41·1	−0·1	+0·4	+0·1	−0·1	0·0	+0·1
20	54·0	40·4	...	...	...	...	+0·2	0·0	...	...	...	...
21	46·9	33·0	39·2	38·4	37·9	33·4	+0·3	−0·2	−0·1	0·0	−0·1	+0·2
22	35·7	29·7	30·4	30·5	33·6	34·2	+0·7	−0·3	−0·2	0·0	+0·1	+0·3
23	40·1	28·9	38·9	35·9	35·4	32·0	+0·8	−0·1	+0·2	−0·8	−0·2	+0·4
24	42·0	26·9	37·7	40·4	41·2	38·1	−0·3	−0·3	−0·2	0·0	−0·2	+0·2
25	38·8	28·0	36·1	37·0	33·1	28·5	+0·6	−0·6	−0·1	−0·1	−0·4	−0·2
26	33·2	25·0	29·6	32·8	31·8	25·1	−2·0	+0·1	−0·1	−1·2	0·0	−0·3
27	34·3	22·2	...	...	...	...	+0·3	0·0	...	...	...	...
28	30·1	25·3	26·8	26·8	29·7	26·1	0·0	−1·0	−0·1	−0·6	−0·3	+0·1
29	30·0	19·8	22·8	28·5	29·6	25·2	+0·2	−0·5	−0·5	−0·5	+0·1	−0·5
30	32·6	21·2	22·3	26·8	29·9	28·4	+0·6	+0·6	−0·4	−1·5	−0·3	+0·6
31	32·9	23·0	29·8	29·8	27·0	24·1	−0·2	−0·4	−0·2	+0·2	−0·6	−0·1
Means	37·9	29·6	33·2	35·0	35·4	32·8	0·0	−0·2	−0·2	−0·3	−0·2	0·0

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h	Excess above readings of Thermometers on ordinary stand, 4 feet above the ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	35·7	28·3	30·4	34·5	34·9	32·7	−0·3	−0·9	−0·1	−0·2	0·0	−0·1
2	40·8	28·8	33·5	39·5	39·9	37·3	+0·2	−0·8	−0·1	−0·2	−0·1	+0·5
3	37·4	31·7	32·2	32·7	35·0	34·1	+0·5	−0·8	−0·5	0·0	−0·1	+0·3
4	37·4	32·5	34·9	36·4	36·7	36·4	−0·2	−0·9	+0·2	0·0	0·0	0·0
5	36·6	31·9	36·2	36·6	35·4	32·7	−0·3	−0·5	0·0	−0·1	−0·1	−0·1
6	33·3	27·8	...	...	...	...	+0·3	−0·4	...	...	...	...
7	32·8	27·6	30·3	31·3	31·9	32·1	−0·3	−0·6	−0·1	−0·1	0·0	−0·2
8	35·7	30·2	33·6	35·0	35·5	31·9	−0·9	−0·7	−0·1	−0·2	0·0	0·0
9	33·3	30·0	32·1	32·3	32·6	31·7	−0·4	−1·1	−0·3	−0·2	−0·1	−0·3
10	31·7	24·0	25·7	28·4	29·7	26·0	0·0	−0·7	−0·4	−0·9	−0·7	0·0
11	28·2	24·0	27·9	27·0	27·7	26·5	−0·4	−1·0	−0·6	−0·1	−0·5	−0·1
12	32·3	21·7	25·0	31·0	30·4	28·4	+0·1	−1·3	−0·1	−0·1	−0·1	−0·1
13	43·5	26·9	...	...	...	...	+0·1	−0·5	...	...	...	...
14	43·6	37·3	38·7	39·9	41·7	41·0	+0·5	+1·5	+0·2	−0·1	0·0	+0·8
15	41·0	37·7	38·4	39·8	39·8	40·4	−0·1	−0·1	0·0	+0·6	−0·1	+0·4
16	46·5	37·9	41·0	43·5	44·6	43·5	+1·7	−0·3	+0·3	0·0	0·0	+0·2
17	45·2	37·4	41·9	42·1	43·4	39·5	+0·5	−1·1	+0·3	−0·3	0·0	−0·1
18	46·3	33·2	39·6	43·6	45·8	40·4	+0·4	−0·8	+0·9	0·0	+1·1	+1·9
19	44·5	37·1	42·8	44·5	43·0	41·3	−0·6	+0·4	+0·1	−0·2	−0·2	+0·3
20	51·8	40·2	...	...	..	...	−2·0	−0·2	...	...	...	...
21	47·3	33·0	39·4	38·5	38·0	33·4	+0·7	−0·2	+0·1	+0·1	0·0	+0·2
22	35·7	29·0	30·1	30·4	33·5	34·5	+0·7	−1·0	−0·5	−0·1	0·0	+0·6
23	39·5	27·9	39·3	35·8	35·5	31·9	+0·2	−1·1	+0·6	−0·9	−0·1	+0·3
24	42·3	25·6	37·7	39·7	41·3	38·5	0·0	−1·6	−0·2	−0·7	−0·1	+0·6
25	39·3	28·0	36·5	37·0	32·7	28·7	+1·1	−0·6	+0·3	−0·1	−0·8	0·0
26	33·5	24·0	29·5	33·3	31·7	25·9	−1·7	−0·9	−0·2	−0·7	−0·1	+0·5
27	34·5	21·5	...	...	...	...	+0·5	−0·7	...	...	...	...
28	29·8	25·5	26·8	26·5	29·7	26·3	−0·3	−0·8	−0·1	−0·9	−0·3	+0·3
29	29·9	19·2	23·0	28·9	29·3	25·1	+0·1	−1·1	−0·3	−0·1	−0·2	−0·6
30	32·1	21·0	22·4	27·0	30·2	28·3	+0·1	+0·4	−0·3	−1·3	0·0	+0·5
31	32·5	23·6	30·0	29·3	26·8	24·2	−0·6	+0·2	0·0	−0·3	−0·8	0·0
Means	37·9	29·2	33·3	35·0	35·4	33·1	0·0	−0·7	0·0	−0·3	−0·1	+0·2

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 Stevenson's Screen, 4 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	32·3	22·2	25·6	27·4	27·7	29·8	+2·3	−0·7	−0·8	−0·6	−0·3	−0·2
2	34·3	22·2	32·7	33·0	33·4	22·7	+0·1	−1·0	−0·2	−0·5	0·0	−0·1
3	33·1	18·0	...	...	...	...	+1·4	+0·3	...	...	...	...
4	34·0	27·0	32·4	32·8	31·5	27·1	−0·1	−0·2	−0·1	−0·1	−0·4	−0·3
5	29·0	20·6	22·0	27·8	28·4	21·0	−1·9	−0·6	−0·1	−0·9	−0·4	−0·6
6	24·6	14·9	15·0	21·4	22·8	18·5	−2·4	−0·2	−0·4	−0·5	−0·5	−0·4
7	24·8	9·4	16·1	22·8	23·0	15·0	−2·2	−0·2	−0·3	−1·9	−0·9	−1·0
8	29·0	6·6	12·0	26·7	26·7	21·0	0·0	−0·3	+0·3	−0·9	−0·6	−0·2
9	26·9	9·7	12·8	17·8	26·4	19·3	−0·1	−0·5	−0·7	−1·1	−0·5	−0·2
10	29·7	14·4	...	...	...	...	0·0	0·0	...	...	...	...
11	33·2	23·2	27·0	30·3	30·0	23·5	+1·2	−0·3	+0·1	−0·6	−0·4	−0·7
12	36·0	17·4	18·4	31·5	34·8	28·2	+0·9	0·0	−0·7	−0·4	+0·1	0·0
13	35·0	16·0	16·8	27·8	33·6	25·1	−1·2	−0·2	−0·7	+0·3	−0·4	−0·1
14	27·2	20·0	23·3	24·9	23·6	24·6	−1·2	−0·2	+0·5	−0·7	−0·5	−0·1
15	31·5	23·9	26·2	26·7	28·8	30·5	+0·4	−0·1	−0·3	−0·2	−0·2	−0·2
16	33·8	25·0	30·8	32·3	33·0	28·5	−0·3	−0·2	+0·4	−0·7	−0·5	−0·2
17	37·9	18·4	...	...	...	...	+1·1	+0·2	...	...	...	...
18	36·9	23·0	28·6	34·4	35·8	34·0	0·0	+0·6	−0·1	−0·2	−0·1	0·0
19	38·9	31·1	31·8	36·7	38·3	31·7	−1·8	−0·2	−0·1	−0·1	−1·0	+0·2
20	39·3	27·4	34·4	37·6	38·7	34·9	−0·7	+0·4	0·0	−0·2	0·0	+0·2
21	42·2	33·7	35·2	38·7	41·2	37·2	−0·7	−0·2	−0·1	0·0	+0·1	+0·1
22	39·5	35·0	36·9	39·1	38·5	37·0	−0·6	−0·1	0·0	−0·4	+0·1	0·0
23	43·0	34·0	35·3	38·0	42·7	36·0	−0·1	0·0	−0·3	−0·7	+0·2	+0·2
24	44·2	33·9	...	...	...	...	−0·8	0·0	...	...	...	...
25	38·4	31·0	34·9	34·5	34·0	31·3	+0·6	−0·2	+0·1	0·0	−0·4	0·0
26	41·0	27·6	30·9	35·5	39·9	38·8	+0·4	+0·2	−0·4	−0·7	+0·1	−0·1
27	40·0	31·8	36·6	38·0	38·9	35·9	−1·2	+0·4	+0·7	−0·4	−0·3	+0·1
28	43·9	32·0	32·7	39·8	43·1	39·6	−1·1	−0·1	+0·3	−0·4	0·0	+0·1
Means	35·0	23·2	27·0	31·5	33·1	28·8	−0·3	−0·1	−0·1	−0·5	−0·3	−0·1

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	30·5	22·0	25·9	27·7	27·7	29·7	+0·5	−0·9	−0·5	−0·3	−0·3	−0·3
2	33·6	21·9	32·7	33·3	33·3	22·8	−0·6	−1·3	−0·2	−0·2	−0·1	0·0
3	32·6	17·6	...	...	...	...	+0·9	−0·1	...	...	...	...
4	33·7	26·7	32·7	33·6	31·4	27·3	−0·4	−0·5	+0·2	+0·7	−0·5	−0·1
5	30·5	20·1	21·8	28·9	29·0	21·5	−0·4	−1·1	−0·3	+0·2	+0·2	−0·1
6	25·5	13·3	15·7	21·3	23·0	18·5	−1·5	−1·8	+0·3	−0·6	−0·3	−0·4
7	24·4	8·7	16·0	23·5	23·5	15·1	−2·6	−0·9	−0·4	−1·2	−0·4	−0·9
8	28·0	7·0	11·3	27·7	26·8	21·4	−1·0	+0·1	−0·4	+0·1	−0·5	+0·2
9	27·3	9·8	13·2	19·5	27·3	19·7	+0·3	−0·4	−0·3	+0·6	+0·4	+0·2
10	29·5	13·3	...	...	...	...	−0·2	−1·1	...	...	...	...
11	31·4	21·1	27·3	31·4	30·9	22·6	−0·6	−2·4	+0·4	+0·5	+0·5	−1·6
12	35·2	17·2	19·7	32·0	34·7	27·9	+0·1	−0·2	+0·6	+0·1	0·0	−0·3
13	36·3	16·3	18·8	27·6	33·7	25·2	+0·1	+0·1	+1·3	+0·1	−0·3	0·0
14	28·1	19·2	23·4	25·4	23·7	24·7	−0·3	−1·0	+0·6	−0·2	−0·4	0·0
15	31·2	23·4	26·7	26·9	29·0	30·1	+0·1	−0·6	+0·2	0·0	0·0	−0·6
16	34·5	23·9	30·5	33·2	33·3	28·7	+0·4	−1·3	+0·1	+0·2	−0·2	0·0
17	37·7	18·3	...	...	...	...	+0·9	+0·1	...	...	...	...
18	35·7	23·0	28·7	34·4	35·7	34·2	−1·2	+0·6	0·0	−0·2	−0·2	+0·2
19	39·7	30·8	32·2	37·9	39·7	30·8	−1·0	−0·5	+0·3	+1·1	+0·4	−0·7
20	40·4	27·0	34·9	38·3	39·1	34·9	+0·4	0·0	+0·5	+0·5	+0·4	+0·2
21	42·6	33·6	35·4	39·9	42·0	37·7	−0·3	−0·3	+0·1	+1·2	+0·9	+0·6
22	39·3	34·9	37·5	39·3	38·6	37·4	−0·8	−0·2	+0·6	−0·2	+0·2	+0·4
23	43·3	34·0	35·7	38·4	42·5	35·7	+0·2	0·0	+0·1	−0·3	0·0	−0·1
24	44·7	33·8	...	...	...	...	−0·3	−0·1	...	...	...	...
25	36·9	30·0	34·7	34·3	34·6	30·8	−0·9	−1·2	−0·1	−0·2	+0·2	−0·5
26	40·5	27·0	31·0	35·7	40·1	38·9	−0·1	−0·4	−0·3	−0·5	+0·3	0·0
27	40·1	30·8	35·7	38·2	39·0	36·5	−1·1	−0·6	−0·2	−0·2	−0·2	+0·7
28	44·3	31·0	32·0	40·4	43·1	39·7	−0·7	−1·1	−0·4	+0·2	0·0	+0·2
Means	34·9	22·7	27·2	32·0	33·4	28·8	−0·4	−0·7	+0·1	+0·1	0·0	−0·1

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

MARCH.

Days of the Month.	Readings of Thermometers in Stevenson's Screen, 4 feet above the ground. Maximum.	Minimum.	9h.	Noon.	15h.	21h.	Excess above readings of Thermometers on ordinary stand, 4 feet above the ground. Maximum.	Minimum.	9h.	Noon.	15h.	21h.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	46.3	38.2	41.7	41.5	46.1	39.5	−0.8	−0.1	0.0	−0.2	−0.4	+0.1
2	39.7	32.0	34.4	37.1	34.8	32.1	−0.8	0.0	−0.2	−0.6	−0.2	−0.1
3	37.2	25.0	...	...	...	...	−1.6	−0.3	...	...	...	...
4	39.1	27.3	30.3	35.1	38.0	33.5	−1.2	−0.1	−0.3	−1.3	−0.8	−0.1
5	40.0	30.3	33.6	38.5	39.6	35.9	−3.0	−0.1	−0.1	−0.5	−0.2	+0.2
6	41.4	33.9	36.8	40.4	40.5	37.8	−0.6	−0.2	−0.1	0.0	−0.2	+0.1
7	46.2	34.0	36.5	39.6	45.1	36.4	−1.5	−0.2	0.0	−0.1	−0.6	0.0
8	46.4	32.0	37.8	43.6	44.9	40.9	−1.6	−0.4	+0.1	−1.9	−0.8	0.0
9	42.9	37.6	39.6	41.3	40.8	40.7	−0.5	−0.2	−0.3	−0.2	0.0	0.0
10	50.0	37.3	...	...	...	...	−1.8	+0.1	...	...	...	...
11	54.7	34.2	45.1	51.6	50.7	40.5	−2.0	+0.1	+1.2	−0.5	−1.0	+0.1
12	51.1	33.9	42.2	48.7	50.4	39.8	−1.2	−0.3	+0.1	−1.0	−0.4	0.0
13	45.6	36.0	36.8	43.8	43.4	38.8	−2.5	−0.2	0.0	−1.7	−0.3	−0.2
14	54.7	31.0	38.9	49.8	54.2	46.5	−1.1	0.0	−0.6	−0.7	−0.3	+0.1
15	52.0	41.0	45.8	50.4	50.9	48.0	−0.8	0.0	−0.2	−0.2	0.0	−0.1
16	50.7	41.2	45.7	49.6	50.1	46.1	−0.3	0.0	0.0	−0.1	−0.4	+0.1
17	57.0	41.8	...	...	...	...	0.0	+0.3	...	...	...	...
18	59.1	34.2	48.7	56.1	58.5	46.3	−2.5	+0.6	+2.3	−1.7	−1.2	+0.1
19	53.0	38.7	42.5	47.5	51.7	47.8	−0.8	+0.2	−0.1	−0.3	0.0	+0.1
20	55.2	45.2	49.9	50.9	53.8	45.2	−0.9	−0.1	0.0	−0.3	−0.2	−0.2
21	60.1	42.3	47.3	52.5	58.2	53.2	−0.9	−0.1	−0.1	−0.2	0.0	+0.3
22	61.3	42.4	49.8	59.1	61.1	49.9	−1.7	+0.2	+0.3	−0.8	−1.1	+0.1
23	53.7	39.8	47.3	52.2	47.6	48.0	−1.3	+0.6	−0.1	−0.6	+0.2	−0.1
24	56.3	46.6	...	...	...	...	−0.8	+0.4	...	...	...	...
25	53.9	39.3	45.5	51.5	50.5	43.0	−1.8	+0.1	−0.3	−0.5	−0.2	+0.1
26	52.0	39.5	45.2	48.8	50.2	43.1	−1.2	0.0	−0.5	+0.1	−0.4	0.0
27	53.9	37.9	40.1	49.8	52.9	48.5	−0.4	−0.2	−0.6	−0.1	−0.1	+0.1
28	49.1	43.0	46.2	45.9	47.7	43.1	−0.6	0.0	−0.2	+0.1	−0.1	−0.2
29	46.2	39.3	39.7	43.8	44.6	40.5	−0.8	+0.2	0.0	0.0	−1.1	+0.5
30	47.9	35.3	41.0	43.9	44.6	39.8	−1.1	−0.1	+0.1	−0.1	+0.1	−0.3
31	49.2	37.9	...	...	...	...	−1.4	+0.4	...	...	...	...
Means	49.9	37.0	41.9	46.7	48.1	42.5	−1.2	0.0	0.0	−0.5	−0.4	0.0

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground. Maximum.	Minimum.	9h.	Noon.	15h.	21h.	Excess above readings of Thermometers on ordinary stand, 4 feet above the ground. Maximum.	Minimum.	9h.	Noon.	15h.	21h.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	46.6	38.0	41.7	41.5	46.1	39.7	−0.5	−0.3	0.0	−0.2	−0.4	+0.3
2	41.6	31.0	33.8	37.3	35.4	31.9	+1.1	−1.0	−0.8	−0.4	+0.4	−0.3
3	37.1	24.0	...	...	...	...	−1.7	−1.3	...	...	...	...
4	39.7	26.9	30.6	35.3	38.2	32.9	−0.6	−0.5	0.0	−1.1	−0.6	−0.7
5	40.3	29.4	33.1	37.0	39.7	36.8	−2.7	−1.0	−0.6	−2.0	−0.1	+1.1
6	42.5	34.0	38.3	41.4	40.6	39.2	+0.5	−0.1	+1.4	+1.0	−0.1	+1.5
7	48.3	34.2	37.8	39.4	47.3	37.7	+0.6	0.0	+1.3	−0.3	+1.6	+1.3
8	47.4	32.0	37.5	43.9	45.6	41.0	−0.6	−0.4	−0.2	−1.6	−0.1	+0.1
9	43.4	37.4	40.1	41.4	40.7	40.7	0.0	−0.4	+0.2	−0.1	−0.1	0.0
10	50.5	36.9	...	...	...	...	−1.3	−0.3	...	...	...	...
11	54.5	34.0	45.0	52.7	51.4	40.6	−2.2	−0.1	+1.1	+0.6	−0.3	+0.2
12	51.7	33.4	42.6	48.7	50.9	39.7	−0.6	−0.8	+0.5	−1.0	+0.1	−0.1
13	45.0	35.3	36.6	43.8	43.5	40.2	−3.1	−0.9	−0.2	−1.7	−0.2	+1.2
14	55.2	30.7	39.4	49.5	53.7	46.9	−0.6	−0.3	−0.1	−1.0	−0.8	+0.5
15	52.2	40.1	46.7	50.6	50.8	48.2	−0.6	−0.9	+0.7	0.0	−0.1	+0.1
16	51.5	40.5	46.2	50.7	50.5	46.8	+0.5	−0.7	+0.5	+1.0	0.0	+0.8
17	56.3	42.1	...	...	...	...	−0.7	+0.6	...	...	...	...
18	61.7	34.7	47.7	58.6	60.4	46.0	+0.1	+1.1	+1.3	+0.8	+0.7	−0.2
19	52.7	38.3	42.7	48.4	51.8	47.7	−1.1	−0.2	+0.1	+0.6	+0.1	0.0
20	55.5	45.5	49.9	51.0	53.8	45.7	−0.6	+0.2	0.0	−0.2	−0.2	+0.3
21	60.5	41.8	48.4	52.6	59.5	53.7	−0.5	−0.6	+1.0	−0.1	+1.3	+0.8
22	61.6	41.0	49.9	58.7	61.6	51.2	−1.4	−1.2	+0.4	−1.2	−0.6	+1.4
23	53.7	39.1	47.8	52.5	47.3	48.3	−1.3	−0.1	+0.4	−0.3	−0.1	+0.2
24	56.5	45.2	...	...	...	...	−0.6	−1.0	...	...	...	...
25	54.6	39.3	45.8	51.7	50.7	42.7	−1.1	+0.1	0.0	−0.3	0.0	−0.2
26	51.5	38.9	45.5	48.7	50.5	43.0	−1.7	−0.6	−0.2	0.0	−0.1	−0.1
27	54.4	37.3	40.7	50.0	53.5	48.5	+0.1	−0.8	0.0	+0.1	+0.5	+0.1
28	49.3	42.4	46.0	46.5	47.7	42.8	−0.4	−0.6	−0.4	+0.7	−0.1	−0.5
29	46.4	39.1	39.6	44.4	44.6	40.0	−0.6	0.0	−0.1	+0.6	−1.1	0.0
30	48.5	34.1	41.7	44.5	44.6	39.7	−0.5	−1.3	+0.8	+0.5	+0.1	−0.4
31	49.7	36.3	...	...	...	...	−0.9	−1.2	...	...	...	...
Means	50.3	36.5	42.1	47.0	48.5	42.8	−0.7	−0.5	+0.3	−0.2	0.0	+0.3

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

APRIL.

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

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

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 Stevenson's Screen, 4 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	62·2	44·3	59·8	60·7	56·7	44·9	−1·8	+0·5	+0·1	−0·2	0·0	+0·2
2	60·7	38·0	54·8	57·3	59·2	47·8	−1·8	+0·2	+1·0	−1·1	−0·5	+0·3
3	62·1	40·5	57·1	59·8	59·6	46·3	−1·3	+0·4	+0·4	−0·3	−0·2	−0·2
4	63·0	43·5	57·2	60·3	63·0	48·5	−0·4	+0·3	−0·5	−0·5	−0·7	+0·3
5	60·8	39·5	...	...	...	...	−1·9	+0·5	...	...	...	...
6	68·7	42·9	61·8	66·8	67·8	56·5	−1·4	+0·7	−0·7	−1·8	−1·2	+0·1
7	65·8	50·4	60·0	64·6	63·7	53·6	−1·2	+1·0	−0·5	−1·0	−0·4	+0·1
8	66·7	46·8	61·8	65·5	64·6	53·1	−1·5	+0·8	−0·9	−1·8	−1·1	+0·2
9	73·0	44·1	64·0	71·9	69·1	57·7	−2·1	+0·9	−0·4	−0·4	−0·7	+0·1
10	67·9	46·0	58·5	62·9	67·9	53·6	−2·4	+0·2	+0·1	−0·6	−1·5	+0·4
11	73·5	45·5	63·8	69·9	72·0	59·0	−1·9	+0·3	+0·3	−0·3	−2·1	+0·1
12	78·4	50·0	...	...	...	...	−2·9	+1·3	...	...	...	...
13	77·8	57·6	67·8	73·6	77·0	65·6	−2·1	+0·3	+0·1	−0·3	−0·7	−0·1
14	73·2	56·0	65·4	69·6	72·0	63·8	−1·8	+0·5	−0·5	−0·1	−0·7	+0·2
15	65·0	53·8	57·6	60·3	59·6	53·8	+1·0	0·0	−0·1	−0·5	−0·1	+0·1
16	54·0	42·0	46·9	51·8	52·7	42·0	0·0	+0·4	0·0	−1·9	−1·0	+0·1
17	46·2	39·1	42·4	44·5	45·7	44·0	−0·6	−0·5	−0·4	−0·2	−0·2	+0·1
18	54·7	40·3	47·6	50·4	50·1	47·8	−1·5	−0·7	−0·2	−0·3	−0·3	−0·1
19	49·2	46·0	...	...	...	...	+0·1	+0·2	...	...	...	...
20	48·7	44·1	46·1	46·5	47·7	46·5	−0·1	+0·1	−0·5	−0·4	−0·1	+0·5
21	62·2	44·1	56·7	62·2	57·6	51·0	−1·0	+1·1	0·0	−0·1	−0·3	+0·1
22	66·4	41·2	52·3	63·9	64·8	58·1	−2·2	+0·1	−0·4	−0·8	+0·1	0·0
23	67·3	44·9	63·5	63·0	56·9	51·6	−2·8	+0·8	−0·9	−0·1	−0·2	+0·1
24	63·8	45·6	56·2	61·6	63·8	49·8	−3·0	−0·4	−1·5	−1·2	−1·3	+0·1
25	68·2	47·9	...	...	...	...	−2·9	−0·2	...	...	...	...
26	70·8	47·1	...	...	...	...	−1·9	+0·1	...	...	...	...
27	70·7	47·1	59·2	69·4	69·4	53·5	−2·6	+0·9	−0·7	−0·9	−1·3	+0·1
28	66·2	44·5	56·5	63·1	64·4	48·7	−2·6	0·0	−0·4	−1·7	−2·1	0·0
29	75·7	46·3	55·8	72·2	74·8	58·9	−3·1	−0·7	−1·4	−1·1	−1·6	0·0
30	84·2	50·4	78·1	82·6	82·5	68·1	−2·0	+1·1	0·0	−0·1	−1·2	+0·2
31	72·8	59·7	65·2	68·5	71·7	60·8	−1·5	+0·3	−1·0	−0·6	0·0	0·0
Means	65·8	46·1	58·3	63·2	63·6	53·3	−1·7	+0·3	−0·3	−0·7	−0·7	+0·1

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	62·6	43·1	59·7	61·4	55·7	44·5	−1·4	−0·7	0·0	+0·5	−1·0	−0·2
2	61·0	36·1	51·8	56·2	58·1	47·4	−1·5	−1·7	−2·0	−2·2	−1·6	−0·1
3	62·6	39·0	55·4	58·5	58·7	46·3	−0·8	−1·1	−1·3	−1·6	−1·1	−0·2
4	63·5	42·9	55·5	61·6	60·9	48·7	+0·1	−0·3	−2·2	+0·8	−2·8	+0·5
5	60·2	39·4	...	...	...	...	−2·5	+0·4	...	...	...	...
6	69·8	41·9	60·0	67·0	68·0	55·6	−0·3	−0·3	−2·5	−1·6	−1·0	−0·8
7	66·6	49·4	60·7	64·7	64·7	52·7	−0·4	0·0	+0·2	−0·9	+0·6	−0·8
8	67·5	45·2	61·7	65·9	65·4	52·4	−0·7	−0·8	−1·0	−1·4	−0·3	−0·5
9	74·5	42·8	63·4	71·8	70·0	57·9	−0·6	−0·4	−1·0	−0·5	+0·2	+0·3
10	69·7	45·0	58·3	63·9	68·9	54·3	−0·6	−0·8	−0·1	+0·4	−0·5	+1·1
11	74·5	44·2	63·5	69·9	73·2	59·8	−0·9	−1·0	0·0	−0·3	−0·9	+0·9
12	80·3	49·2	...	...	...	...	−1·0	+0·5	...	...	...	...
13	79·2	57·4	69·0	74·4	77·2	66·8	−0·7	+0·1	+1·3	+0·5	−0·5	+1·1
14	74·5	55·1	64·1	69·6	73·7	63·7	−0·5	−0·4	−1·8	−0·1	+1·0	+0·1
15	64·1	53·2	57·2	60·5	59·3	53·5	+0·1	−0·6	−0·5	−0·3	−0·4	−0·2
16	53·5	41·1	47·0	51·8	53·0	41·5	−0·5	−0·5	+0·1	−1·9	−0·7	−0·4
17	45·8	38·3	42·7	44·4	45·6	44·5	−1·0	−1·3	−0·1	−0·3	−0·3	+0·6
18	55·4	39·9	48·4	50·6	50·3	47·7	−0·8	−1·1	+0·6	−0·1	−0·1	−0·2
19	48·7	45·4	...	...	...	...	−0·4	−0·4	...	...	...	...
20	48·5	43·5	46·7	46·6	47·8	45·8	−0·3	−0·5	+0·1	−0·3	0·0	−0·2
21	61·3	42·5	54·5	60·9	57·7	50·3	−1·9	−0·5	−2·2	−1·4	−0·2	−0·6
22	67·5	40·4	51·8	62·9	65·4	58·5	−1·1	−0·7	−0·9	−1·8	+0·7	+0·4
23	68·8	43·9	63·9	63·0	56·5	51·3	−1·3	−0·2	−0·5	−0·1	−0·6	−0·2
24	65·5	45·1	57·9	61·7	63·7	49·7	−1·3	−0·9	+0·2	−1·1	−1·4	0·0
25	69·5	47·2	...	...	...	...	−1·6	−0·9	...	...	...	...
26	73·2	46·2	...	...	...	...	+0·5	−0·8	...	...	...	...
27	72·1	46·2	59·7	70·0	70·1	53·5	−1·2	0·0	−0·2	−0·3	−0·6	+0·1
28	66·1	44·0	54·5	62·8	65·9	47·7	−2·7	−0·5	−2·4	−2·0	−0·6	−1·0
29	77·2	45·9	53·9	71·1	75·0	58·7	−1·6	−1·1	−3·3	−2·2	−1·4	−0·2
30	84·7	48·9	78·3	82·1	83·0	68·5	−1·5	−0·4	+0·2	−0·6	−0·7	+0·6
31	73·3	59·2	65·7	69·2	71·6	60·7	−1·0	−0·2	−0·5	+0·1	−0·1	−0·1
Means	66·5	45·2	57·9	63·2	63·8	53·2	−0·9	−0·6	−0·8	−0·7	−0·5	0·0

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

JUNE.

Days of the Month.	Readings of Thermometers in Stevenson's Screen, 4 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	67·0	53·6	60·8	64·5	62·2	54·1	−0·9	+0·4	+0·1	−0·1	+0·2	+0·3
2	65·8	45·6	...	...	...	..	−3·2	+0·2	...	...	...	...
3	74·8	45·1	...	...	...	...	−1·4	+1·2	...	...	...	...
4	63·9	55·7	61·2	61·4	61·9	60·2	−0·9	+0·2	−0·8	−0·4	−0·2	0·0
5	69·9	55·9	57·1	60·5	68·6	58·8	−1·2	0·0	−0·6	−0·3	−1·2	+0·1
6	66·2	50·6	56·9	60·9	66·1	53·6	−1·7	+0·7	−0·7	−1·5	−1·8	0·0
7	78·8	49·4	67·8	75·8	76·8	62·1	−0·3	+0·6	−0·9	−1·0	−1·9	+0·4
8	79·8	49·6	69·8	76·8	77·4	59·7	−2·9	+0·7	−0·8	−1·7	−2·1	+0·3
9	82·3	52·8	...	...	...	...	−2·0	+1·3	...	...	...	...
10	71·6	58·2	62·1	64·9	65·8	59·6	+1·5	+0·7	−0·6	−0·9	−0·4	+0·1
11	70·0	51·1	61·5	66·8	69·1	59·6	−2·3	+0·7	0·0	−0·8	−0·6	0·0
12	62·3	48·7	55·1	58·5	59·7	50·0	−1·8	+0·5	−0·4	−0·5	−0·2	0·0
13	65·0	42·9	57·1	62·5	63·9	55·1	−1·9	+0·7	+0·3	−1·9	−1·5	+0·1
14	67·0	48·5	55·2	64·4	64·3	52·1	−2·2	+0·1	−0·5	0·0	−0·7	−1·1
15	66·9	43·2	55·0	58·8	61·8	51·5	−0·8	+0·6	−0·6	−0·9	−0·4	+0·3
16	72·1	45·2	...	...	...	...	−1·9	+0·2	...	...	...	...
17	68·1	47·1	60·1	65·6	67·0	51·5	−0·9	+0·9	−0·7	−0·1	−0·7	+0·1
18	73·0	46·1	62·4	68·6	72·3	58·6	−2·8	+0·7	−0·2	−1·1	−1·4	+0·5
19	65·7	53·4	54·6	59·8	64·6	56·4	−2·3	+0·5	−0·6	−0·2	+0·1	+0·2
20	72·9	46·7	59·7	68·6	71·2	61·2	−2·1	+0·4	−0·1	−1·1	−1·0	+0·3
21	73·9	47·5	66·8	73·4	71·5	61·8	−2·8	+0·3	−0·4	−0·5	−0·7	+0·2
22	76·9	57·6	62·0	72·6	76·4	65·7	−2·1	+0·4	−0·2	−0·1	−0·8	+0·2
23	81·9	56·5	...	...	...	...	−1·9	+0·6	...	...	...	...
24	75·1	57·2	66·8	66·4	74·9	57·2	−1·7	+0·3	−1·0	−0·1	−0·1	+0·3
25	79·2	50·2	65·7	74·0	79·2	61·0	−2·1	+0·9	0·0	−0·9	−0·5	+0·3
26	81·2	51·4	71·8	78·9	80·0	66·1	−2·6	+0·2	+0·1	−1·8	−0·9	+0·2
27	78·2	55·8	71·8	71·3	76·6	67·0	−2·0	+0·8	+0·3	−0·2	−1·2	+0·5
28	74·2	52·2	70·0	72·6	71·3	61·7	−3·7	+0·3	+0·3	−0·2	−0·5	+0·1
29	72·4	57·7	67·0	69·6	65·5	60·8	−2·4	+0·3	−0·2	0·0	−0·7	+0·1
30	72·0	57·0	...	...	...	...	−2·0	+1·0	...	..	...	...
Means	72·3	51·1	62·4	67·4	69·5	58·6	−1·8	+0·5	−0·3	−0·7	−0·8	+0·1

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	66·7	52·3	60·9	65·1	62·6	53·7	−1·2	−0·9	+0·2	+0·5	+0·6	−0·1
2	66·3	44·3	...	...	...	...	−2·7	−1·1	...	...	...	...
3	74·4	43·1	...	...	...	...	−1·8	−0·8	...	...	...	...
4	64·9	55·4	62·5	61·6	61·7	60·2	+0·1	−0·1	+0·5	−0·2	−0·4	0·0
5	69·6	54·3	56·8	60·7	68·1	58·7	−1·5	−1·6	−0·9	−0·1	−1·7	0·0
6	65·5	49·3	56·9	61·0	64·9	53·2	−2·4	−0·6	−0·7	−1·4	−3·0	−0·4
7	76·6	48·4	67·7	75·1	75·7	62·4	−2·5	−0·4	−1·0	−1·7	−3·0	+0·7
8	79·6	48·1	67·1	74·6	77·3	59·1	−3·1	−0·8	−3·5	−3·9	−2·2	−0·3
9	82·8	51·4	...	...	...	...	−1·5	−0·1	...	...	...	...
10	71·3	57·1	61·8	65·5	66·0	59·2	+1·2	−0·4	−0·9	−0·3	−0·2	−0·3
11	70·3	50·0	61·9	67·4	69·5	59·5	−2·0	−0·4	+0·4	−0·2	−0·2	−0·1
12	62·5	48·0	55·4	58·7	59·7	49·2	−1·6	−0·2	−0·1	−0·3	−0·2	−0·8
13	65·6	41·4	56·7	62·6	64·9	54·7	−1·3	−0·8	−0·1	−1·8	−0·5	−0·3
14	66·5	47·3	55·7	63·7	64·5	53·0	−2·7	−1·1	0·0	−0·7	−0·5	−0·2
15	66·4	42·1	54·9	58·6	62·2	50·7	−1·3	−0·5	−0·7	−1·1	0·0	−0·5
16	72·3	43·9	...	...	...	...	−1·7	−1·1	...	...	...	...
17	68·5	45·3	58·7	63·7	67·3	50·9	−0·5	−0·9	−2·1	−2·0	−0·4	−0·5
18	74·5	45·4	63·6	68·2	72·7	58·8	−1·3	0·0	+1·0	−1·5	−1·0	+0·7
19	66·6	52·3	54·6	59·9	64·5	55·8	−1·4	−0·6	−0·6	−0·1	0·0	−0·4
20	72·7	45·9	59·7	67·7	70·0	60·7	−2·3	−0·4	−0·1	−2·0	−2·2	−0·2
21	74·0	46·8	66·9	72·9	72·5	61·8	−2·7	−0·4	−0·3	−1·0	+0·3	+0·2
22	78·0	57·0	62·7	73·5	76·3	65·7	−1·0	−0·2	+0·5	+0·8	−0·9	+0·2
23	82·5	55·3	...	...	...	...	−1·3	−0·6	...	...	...	...
24	75·3	56·4	66·2	66·9	75·3	56·7	−1·5	−0·5	−1·6	+0·4	+0·3	−0·2
25	78·3	48·1	62·5	73·8	77·5	59·9	−3·0	−1·2	−3·2	−1·1	−2·2	−0·8
26	82·7	50·3	73·5	79·7	82·3	65·9	−1·1	−0·9	+1·8	−1·0	+1·4	0·0
27	78·7	54·4	72·4	72·0	76·5	66·9	−1·5	−0·6	+0·9	+0·5	−1·3	+0·4
28	76·4	49·2	69·8	74·5	71·5	61·5	−1·5	−2·7	+0·1	+1·7	−0·3	−0·1
29	73·5	57·3	68·6	69·7	65·9	60·4	−1·3	−0·1	+1·4	+0·1	−0·3	−0·3
30	71·7	56·3	...	...	...	...	−2·3	+0·3	...	...	...	...
Means	72·5	49·9	62·4	67·4	69·6	58·3	−1·6	−0·7	−0·4	−0·7	−0·7	−0·1

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

JULY.

Days of the Month.	Readings of Thermometers in Stevenson's Screen, 4 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	71·2	56·2	64·8	68·8	66·3	60·8	−2·1	+0·9	−0·2	−0·3	−0·5	+0·2
2	70·0	55·0	63·5	67·0	67·2	59·1	−1·2	+0·6	+0·4	0·0	−0·5	+0·4
3	68·8	54·0	61·0	65·6	66·7	60·8	−2·0	+0·6	−0·4	−0·6	−1·3	0·0
4	68·1	54·1	63·3	63·8	65·5	57·1	−1·9	+0·6	−1·1	+0·4	0·0	0·0
5	67·1	53·4	65·0	64·5	64·8	58·3	−1·0	+0·3	+0·4	−0·2	+0·1	−0·3
6	73·0	51·3	67·9	73·0	72·0	58·0	−2·0	+1·2	0·0	−0·5	−0·3	+0·3
7	80·0	50·4	...	...	...	...	−3·0	+1·2	...	...	...	...
8	81·1	52·5	72·0	77·6	80·7	65·9	−2·7	+0·6	+0·3	−0·5	−1·9	+0·2
9	78·0	55·7	71·8	76·2	75·1	62·8	−2·2	+0·7	+0·1	−0·9	+0·4	+0·1
10	76·6	57·3	65·7	72·5	75·3	64·8	−3·4	+0·8	−0·8	−1·0	−1·4	+0·3
11	76·3	58·5	63·8	71·5	75·1	63·8	−1·9	+0·4	−0·8	−1·2	−0·6	0·0
12	64·8	57·2	60·1	63·3	64·8	59·6	−2·0	+0·3	−0·4	−0·6	−0·8	+0·2
13	76·0	50·7	61·8	71·2	75·3	64·8	−2·8	+0·5	+0·2	−0·5	−1·2	+0·1
14	70·0	59·3	...	...	...	...	−2·2	+0·3	...	...	...	...
15	67·7	51·4	61·2	65·4	66·4	60·6	−2·1	+0·3	−0·7	−1·3	−0·3	−0·1
16	70·0	53·2	63·2	70·0	67·8	60·2	−2·3	+0·6	−0·2	+0·1	−0·1	−0·1
17	79·9	53·3	69·0	76·8	78·4	66·7	−2·1	+0·8	+0·1	−1·3	−0·9	+0·1
18	74·8	60·3	69·5	73·1	72·6	63·1	−2·0	+2·7	+0·2	−1·3	−0·7	+0·1
19	70·5	57·5	64·2	69·1	67·9	57·5	−1·5	+0·3	+0·1	−1·5	−0·1	+0·1
20	66·8	55·1	56·8	63·2	63·5	58·9	−1·2	+0·7	−0·1	−0·5	−0·2	+0·2
21	64·0	54·6	...	...	...	...	−1·2	+0·2	...	...	...	...
22	69·3	54·3	60·1	67·6	66·9	57·9	−2·7	+0·3	−0·4	−0·8	+0·2	+0·1
23	70·2	51·7	63·8	67·1	69·8	59·5	−1·8	+0·4	+0·1	−0·8	−1·0	+0·1
24	71·2	54·9	64·6	70·2	69·4	63·9	−1·3	+0·2	−0·1	−0·4	+0·3	0·0
25	68·8	61·5	64·0	67·2	67·2	64·5	−0·6	+0·5	+0·2	−0·3	−0·3	0·0
26	75·6	61·1	64·6	74·5	74·0	65·7	−1·9	+0·7	−0·8	−0·9	+0·2	0·0
27	71·5	58·5	65·8	69·4	70·0	58·5	−1·8	+0·2	+0·1	−0·2	+0·4	0·0
28	59·1	52·7	...	...	...	...	−0·6	+0·2	...	...	...	...
29	67·5	55·5	59·5	62·8	66·8	59·3	−1·5	+0·3	−0·2	−0·7	−0·7	+0·1
30	63·5	54·7	60·8	60·7	62·8	58·5	−0·7	+0·4	+1·0	−0·4	0·0	0·0
31	69·3	55·3	60·8	66·5	66·8	58·4	−1·8	+0·6	−0·5	−0·5	−0·1	−0·1
Means	71·0	55·2	64·0	68·8	69·6	61·1	−1·9	+0·6	−0·1	−0·6	−0·4	+0·1

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon	15h	21h
	°	°	°	°	°	°	°	°	°	°	°	°
1	71·3	55·3	65·4	69·1	66·4	60·6	−2·0	0·0	+0·4	0·0	−0·4	0·0
2	70·1	54·2	63·9	67·4	68·2	58·7	−1·1	−0·2	+0·8	+0·4	+0·5	0·0
3	68·5	53·0	61·6	65·8	65·8	60·7	−2·3	−0·4	+0·2	−0·4	−2·2	−0·1
4	68·9	51·9	62·7	63·5	65·1	56·8	−1·1	−1·6	−1·7	+0·1	−0·4	−0·3
5	67·7	52·2	62·7	64·5	64·8	58·4	−0·4	−0·9	−1·9	−0·2	+0·1	−0·2
6	73·5	50·2	66·7	70·4	72·6	57·6	−1·5	+0·1	−1·2	−3·1	+0·3	−0·1
7	81·7	50·1	...	...	...	...	−1·3	+0·9	...	...	...	...
8	82·4	52·0	72·7	77·7	81·0	65·7	−1·4	+0·1	+1·0	−0·4	−1·6	0·0
9	78·1	54·3	72·2	76·7	75·9	62·7	−2·1	−0·7	+0·5	−0·4	+1·2	0·0
10	77·7	56·2	65·4	72·7	75·2	64·7	−2·3	−0·3	−1·1	−0·8	−1·5	+0·2
11	77·0	57·3	64·8	71·5	75·9	63·7	−1·2	−0·8	+0·2	−1·2	+0·2	−0·1
12	65·3	56·3	59·7	62·5	63·8	58·8	−1·5	−0·6	−0·8	−1·4	−1·8	−0·6
13	76·7	50·0	61·5	70·7	75·7	64·1	−2·1	−0·2	−0·1	−1·0	−0·8	−0·6
14	69·1	58·5	...	...	...	...	−3·1	−0·5	...	...	...	...
15	68·3	50·2	61·3	65·9	66·7	60·4	−1·5	−0·9	−0·6	−0·8	0·0	−0·3
16	70·5	52·2	64·1	69·7	68·3	59·9	−1·8	−0·4	+0·7	−0·2	+0·4	−0·4
17	80·1	52·2	70·4	75·9	78·9	66·3	−1·9	−0·3	+1·5	−2·2	−0·4	−0·3
18	76·1	57·4	70·7	75·5	72·9	63·0	−0·7	−0·2	+1·4	+1·1	−0·4	0·0
19	70·5	57·3	64·7	69·7	68·1	57·3	−1·5	+0·1	+0·6	−0·9	+0·1	−0·1
20	66·9	54·0	56·7	63·3	63·4	58·7	−1·1	−0·4	−0·2	−0·4	−0·3	0·0
21	64·5	53·6	...	...	...	...	−0·7	−0·8	...	...	...	...
22	70·3	53·2	60·7	68·1	66·7	57·5	−1·7	−0·8	+0·2	−0·3	0·0	−0·3
23	70·6	50·2	63·6	67·2	70·3	59·4	−1·4	−1·1	−0·1	−0·7	−0·5	0·0
24	73·2	54·2	65·5	70·9	69·7	63·9	+0·7	−0·5	+0·8	+0·3	+0·6	0·0
25	69·6	60·9	64·7	68·0	67·5	64·3	+0·2	−0·1	+0·9	+0·5	0·0	−0·2
26	76·7	60·4	65·6	74·7	75·0	65·7	−0·8	0·0	+0·2	−0·7	+1·2	0·0
27	72·2	57·0	66·5	70·0	69·7	57·8	−1·1	−1·3	+0·8	+0·4	+0·1	−0·7
28	58·4	51·4	...	...	...	...	−1·3	−1·1	...	...	...	...
29	68·4	54·2	60·3	64·1	68·4	58·7	−0·6	−1·0	+0·6	+0·6	+0·9	−0·5
30	64·5	54·2	61·1	61·5	63·2	59·5	+0·3	−0·1	+1·3	+0·4	+0·4	+1·0
31	68·1	54·2	60·7	65·8	66·8	57·9	−3·0	−0·5	−0·6	−1·2	−0·1	−0·6
Means	71·5	54·1	64·3	69·0	69·9	60·8	−1·3	−0·5	+0·1	−0·5	−0·2	−0·2

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 Stevenson's Screen, 4 feet above the ground. Maximum.	Minimum.	9ʰ	Noon.	15ʰ	21ʰ	Excess above readings of Thermometers on ordinary stand, 4 feet above the ground. Maximum.	Minimum.	9ʰ	Noon.	15ʰ	21ʰ
d	°	°	°	°	°	°	°	°	°	°	°	°
1	69·1	49·4	62·8	67·7	67·8	58·4	−2·0	+1·1	+1·0	0·0	−0·1	0·0
2	71·0	56·3	59·5	62·3	70·2	58·8	−1·1	+0·4	0·0	−0·4	−0·7	+0·2
3	62·0	53·3	59·2	59·4	61·5	55·9	−0·9	+0·8	+0·3	−0·1	−0·2	−0·3
4	66·7	52·1	...	...	...	...	−1·5	+0·2	...	...	...	...
5	66·2	48·5	...	...	...	...	−2·0	+0·3	...	...	...	...
6	67·2	57·3	58·8	59·6	65·8	57·4	−1·6	+0·4	+0·1	+0·1	+0·3	+0·5
7	68·2	51·6	61·7	59·0	68·0	56·1	−2·0	+0·4	+0·1	−1·5	+0·2	+0·3
8	71·4	52·0	64·5	68·5	68·8	57·7	−2·5	+0·6	+1·6	+0·7	−0·3	−0·3
9	72·0	55·7	64·8	67·3	70·7	60·8	−1·7	+0·5	−0·3	−0·6	0·0	+0·1
10	74·0	59·1	64·8	70·0	69·8	64·8	−1·8	+0·7	+0·1	−0·9	−0·7	+0·1
11	68·0	57·6	...	...	...	...	−1·8	+0·6	...	...	...	...
12	68·2	53·2	62·1	65·5	68·0	56·8	−1·5	+0·7	−0·5	0·0	+0·5	+0·1
13	62·2	53·6	59·2	57·9	60·2	57·2	−1·8	+0·6	−0·5	0·0	−0·3	+0·1
14	69·1	52·4	63·5	67·0	66·8	61·3	−1·9	+0·4	+0·3	+0·1	−0·1	−0·3
15	72·8	52·5	60·8	69·6	69·6	61·1	−2·0	+0·3	+0·1	−0·3	−0·2	+0·2
16	71·1	57·8	65·7	70·6	70·9	64·8	−1·9	+0·3	−0·4	−0·8	−0·5	+0·1
17	75·8	55·5	70·2	74·6	74·6	60·8	−2·0	+0·5	+0·5	−0·1	−1·2	0·0
18	77·0	54·2	...	...	...	...	−2·0	+1·2	...	...	...	...
19	80·5	52·5	71·7	76·8	80·5	65·1	−1·7	+0·9	+1·4	−0·6	−0·4	+0·2
20	76·2	59·5	65·8	71·2	76·2	64·6	−2·2	+0·4	0·0	−1·2	−0·3	+0·1
21	80·0	56·5	69·6	75·8	79·7	66·6	−1·8	+1·0	+0·9	−0·6	0·0	+0·3
22	79·8	63·6	69·8	78·6	75·8	66·2	−1·5	+1·0	+0·9	−0·5	−0·3	+0·1
23	73·5	59·7	68·5	71·8	72·8	60·0	−1·9	+0·3	+0·8	0·0	+0·1	+0·3
24	69·0	55·3	61·6	66·0	66·1	58·5	−1·4	+0·7	+0·6	−0·7	−0·1	+0·1
25	67·5	46·3	...	...	...	...	−1·9	+0·6	...	...	...	...
26	67·6	55·5	59·7	63·6	67·5	59·5	−1·1	+0·3	0·0	−0·1	0·0	+0·1
27	71·0	56·9	62·1	68·1	70·2	59·7	−0·8	+0·4	−0·1	−0·4	+0·1	+0·2
28	72·8	53·5	64·0	68·5	72·8	63·1	−1·5	+0·4	+0·3	−0·3	+0·1	+0·1
29	74·0	57·4	67·9	72·5	73·7	60·6	−2·8	+0·3	+0·3	−1·2	+0·3	−0·1
30	73·2	57·5	68·1	71·5	71·8	60·1	−2·4	+0·6	+0·3	−1·3	−0·9	+0·1
31	69·0	51·3	60·8	64·4	67·0	55·7	−2·9	+0·6	+0·3	−0·3	−0·7	+0·3
Means	71·2	54·8	64·1	68·0	70·3	60·4	−1·8	+0·6	+0·3	−0·4	−0·2	+0·1

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground. Maximum.	Minimum.	9ʰ	Noon.	15ʰ	21ʰ	Excess above readings of Thermometers on ordinary stand, 4 feet above the ground. Maximum.	Minimum.	9ʰ	Noon.	15ʰ	21ʰ
d	°	°	°	°	°	°	°	°	°	°	°	°
1	71·5	47·2	60·7	68·8	69·1	58·3	+0·4	−1·1	−1·1	+1·1	+1·2	−0·1
2	71·4	55·5	60·0	63·4	71·3	58·5	−0·7	−0·4	+0·5	+0·7	+0·4	−0·1
3	62·5	52·2	59·7	59·9	61·7	55·9	−0·4	−0·3	+0·8	+0·4	0·0	−0·3
4	65·7	51·1	...	...	...	...	−2·5	−0·8	...	...	...	...
5	66·8	47·2	...	...	...	...	−1·4	−1·0	...	...	...	...
6	67·9	54·3	58·7	60·2	65·4	56·9	−0·9	−2·6	0·0	+0·7	−0·1	0·0
7	70·3	50·4	62·1	60·2	68·0	55·5	+0·1	−0·8	+0·5	−0·3	+0·2	−0·3
8	73·7	50·4	64·9	68·1	70·1	57·5	−0·2	−1·0	+2·0	+0·3	+1·0	−0·5
9	72·6	55·9	65·9	68·5	70·8	60·7	−1·1	+0·7	+0·8	+0·6	+0·1	0·0
10	75·7	58·3	66·6	70·4	70·5	64·5	−0·1	−0·1	+1·9	−0·5	0·0	−0·2
11	68·5	56·4	...	...	...	...	−1·3	−0·6	...	...	...	...
12	69·2	51·2	62·9	65·1	67·6	56·7	−0·5	−1·3	+0·3	−0·4	+0·1	0·0
13	63·5	52·2	61·0	57·8	60·5	56·9	−0·5	−0·8	+1·3	−0·1	0·0	−0·2
14	69·3	51·2	63·5	67·9	67·8	61·0	−1·7	−0·8	+0·3	+1·0	+0·9	−0·6
15	74·5	51·2	61·7	69·6	69·9	62·5	−0·3	−1·0	+1·0	−0·3	+0·1	+1·6
16	74·0	57·5	67·1	70·8	72·6	64·8	+1·0	0·0	+1·0	−0·6	+1·2	+0·1
17	76·2	54·8	70·1	74·6	75·1	60·0	−1·6	−0·2	+0·4	−0·1	−0·7	−0·8
18	77·5	53·0	...	...	...	...	−1·5	0·0	...	...	...	...
19	82·3	51·5	71·5	77·4	80·4	65·5	+0·1	−0·1	+1·2	0·0	−0·5	+0·6
20	78·8	58·4	65·8	71·9	78·8	64·5	+0·4	−0·7	0·0	−0·5	+2·3	0·0
21	81·7	54·9	69·5	76·7	81·7	66·8	−0·1	−0·6	+0·8	+0·3	+2·0	+0·5
22	80·5	62·3	69·5	78·7	76·7	65·7	−0·8	−0·3	+0·6	−0·4	+0·6	−0·4
23	72·8	58·8	68·1	72·5	72·7	59·5	−2·6	−0·6	+0·4	+0·7	0·0	−0·2
24	70·5	54·2	62·2	66·8	66·1	58·4	+0·1	−0·4	+1·2	+0·1	−0·1	0·0
25	68·5	44·1	...	...	...	...	−0·9	−1·6	...	...	...	...
26	68·0	55·2	60·0	64·6	67·4	59·6	−0·7	0·0	+0·3	+0·9	−0·1	+0·2
27	71·3	56·1	63·0	68·6	70·3	59·5	−0·5	−0·4	+1·0	+0·1	+0·2	0·0
28	72·5	52·2	63·6	67·9	72·5	63·2	−1·8	−0·9	−0·1	−0·9	−0·2	+0·2
29	74·5	57·1	67·6	72·5	73·5	60·4	−2·3	0·0	0·0	−1·2	+0·1	−0·3
30	73·5	56·2	67·7	71·9	71·5	59·7	−2·1	−0·7	−0·1	−0·9	−1·2	−0·3
31	70·7	50·1	60·4	65·1	66·8	55·1	−1·2	−0·6	−0·1	+0·4	−·09	−0·3
Means	72·1	53·6	64·4	68·5	70·7	60·3	−0·8	−0·6	+0·6	0·0	+0·3	−0·1

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 Stevenson's Screen, 4 feet above the ground. Maximum.	Minimum.	9h	Noon.	15h	21h	Excess above readings of Thermometers on ordinary stand, 4 feet above the ground. Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	75·0	47·3	...	...	...	...	−3·0	+0·9	...	...	...	...
2	78·2	54·5	73·1	76·7	76·5	61·4	−3·4	+1·2	+0·6	−1·1	+0·1	+0·4
3	78·0	53·4	66·9	73·5	77·5	63·8	−2·1	+1·0	+1·1	−1·1	−0·9	+0·3
4	74·3	61·5	63·3	71·2	73·8	61·5	−2·8	+0·6	+0·4	−0·9	+0·1	+0·5
5	74·1	51·4	66·6	71·6	73·5	60·5	−2·9	+0·8	+1·1	−1·9	−0·5	+0·1
6	74·1	57·8	69·5	71·0	73·8	64·7	−2·8	+0·4	0·0	−1·1	−1·7	+0·1
7	78·5	60·7	66·0	75·3	77·8	66·5	−2·5	+0·8	−1·2	0·0	−0·9	0·0
8	73·8	57·3	...	...	...	...	−2·4	+1·0	...	...	...	...
9	79·0	54·5	68·8	76·6	78·8	63·6	−2·7	+1·2	+1·0	−1·1	−1·8	+0·1
10	73·5	58·5	65·6	71·6	70·7	58·5	−2·4	−0·2	−0·1	−0·2	−0·2	−0·2
11	66·9	54·5	62·7	63·6	65·7	55·8	−2·1	+0·4	+0·1	−0·6	−0·3	+0·1
12	63·2	50·3	57·7	59·5	60·1	56·3	−2·0	+0·4	−0·1	0·0	−0·4	+0·1
13	63·7	49·1	59·5	60·1	63·5	52·6	−2·3	+0·6	+0·8	−0·1	−1·0	−0·1
14	66·2	41·1	56·5	63·3	65·8	53·5	−2·2	−0·1	+0·6	−1·6	−1·2	−0·2
15	65·2	46·6	...	...	...	...	−1·7	+0·5	...	...	...	...
16	69·9	47·4	55·8	66·9	69·4	57·2	−2·7	+0·6	−0·7	−0·9	−1·0	+0·3
17	72·5	51·1	52·3	61·8	72·0	58·8	−2·2	+1·0	−0·1	−1·0	−1·5	+0·1
18	75·0	52·2	58·0	68·8	74·2	60·7	−2·0	−0·2	+0·4	−1·6	−0·7	0·0
19	61·0	52·7	56·2	57·5	57·1	52·8	+0·3	+0·7	+0·2	−0·1	+0·1	+0·4
20	64·1	42·9	60·5	63·0	63·0	51·3	−2·1	+0·5	+1·8	−0·7	−1·7	+0·5
21	63·5	43·1	54·8	62·0	62·0	49·8	−2·3	+0·9	−0·1	−2·0	−1·9	+0·6
22	70·5	42·4	...	...	...	...	−1·8	+0·7	...	...	...	...
23	77·0	49·2	52·8	71·0	76·6	57·2	−3·8	+0·7	−0·7	−1·5	−1·5	−0·1
24	84·2	53·4	70·7	79·4	83·6	63·0	−3·1	+1·2	+2·1	−1·7	−1·1	+0·6
25	80·5	58·1	70·6	78·6	80·1	64·6	−3·5	+0·7	+0·9	−1·6	−3·0	+0·6
26	81·1	55·8	68·5	78·4	80·0	62·9	−3·1	+0·4	+1·0	−1·7	−1·9	+0·2
27	79·9	58·3	69·8	78·1	78·8	63·8	−3·3	+1·2	+2·0	−1·9	−1·0	+0·2
28	77·7	55·3	62·0	76·1	76·1	60·0	−2·8	+1·0	+0·1	−2·1	−1·6	+0·2
29	75·0	56·0	...	...	...	...	−2·6	+0·8	...	...	...	...
30	75·7	54·8	58·5	71·3	74·2	58·8	−2·3	+0·5	−0·3	−1·6	−1·0	+0·6
Means	73·0	52·4	62·7	69·9	72·2	59·2	−2·5	+0·7	+0·4	−1·1	−1·1	+0·2

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground. Maximum.	Minimum.	9h	Noon.	15h	21h	Excess above readings of Thermometers on ordinary stand, 4 feet above the ground. Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	77·2	46·2	...	...	...	...	−0·8	−0·2	...	...	...	...
2	79·5	53·2	72·9	77·0	76·3	61·0	−2·1	−0·1	+0·4	−0·8	−0·1	0·0
3	78·5	52·3	67·5	73·8	77·6	63·7	−1·6	−0·1	+1·7	−0·8	−0·8	+0·2
4	75·7	60·4	63·2	71·8	74·7	60·9	−1·4	−0·5	+0·3	−0·3	+1·0	−0·1
5	74·7	51·0	66·5	71·7	74·0	60·4	−2·3	+0·4	+1·0	−1·8	0·0	0·0
6	76·1	57·3	71·1	73·7	75·7	64·3	−0·8	−0·1	+1·6	+1·6	+0·2	−0·3
7	80·5	59·3	66·8	75·7	79·6	66·7	−0·5	−0·6	−0·4	+0·4	+0·9	+0·2
8	74·7	55·6	...	...	...	...	−1·5	−0·7	...	...	...	...
9	80·3	53·2	68·3	76·7	79·7	63·2	−1·4	−0·1	+0·5	−1·0	−0·9	−0·3
10	74·5	58·5	66·0	72·9	70·8	58·5	−1·4	−0·2	+0·3	+1·1	−0·1	−0·2
11	67·7	53·2	62·5	63·7	65·7	55·6	−1·3	−0·9	−0·1	−0·5	−0·3	−0·1
12	64·2	49·1	57·8	59·5	60·2	56·2	−1·0	−0·8	0·0	0·0	−0·3	0·0
13	64·3	47·5	58·8	60·1	63·6	53·3	−1·7	−1·0	+0·1	−0·1	−0·9	+0·6
14	66·7	40·2	56·1	62·7	66·3	53·7	−1·7	−1·0	+0·2	−2·2	−0·7	0·0
15	66·9	45·7	...	...	...	...	0·0	−0·4	...	...	...	...
16	71·3	46·2	57·5	67·9	70·4	57·1	−1·3	−0·6	+1·0	+0·1	0·0	+0·2
17	73·6	49·7	52·6	62·2	73·6	58·6	−1·1	−0·4	+0·2	−0·6	+0·1	−0·1
18	75·5	52·3	57·7	69·8	75·1	59·9	−1·5	−0·1	+0·1	−0·6	+0·2	−0·8
19	60·5	51·1	56·0	57·7	56·9	51·8	−0·2	−0·9	0·0	+0·1	−0·1	−0·6
20	64·5	42·0	57·6	63·3	63·7	50·7	−1·7	−0·4	−1·1	−0·4	−1·0	−0·1
21	62·8	41·2	54·7	62·8	62·7	49·4	−3·0	−1·0	−0·2	−1·2	−1·2	+0·2
22	68·5	41·7	...	...	...	...	−3·8	0·0	...	...	...	...
23	78·9	48·3	51·7	71·0	78·1	57·4	−1·9	−0·2	−1·8	−1·5	0·0	+0·1
24	86·7	53·2	69·7	79·7	85·4	62·4	−0·6	+1·0	+1·1	−1·4	+0·7	0·0
25	82·5	57·9	71·4	79·0	81·3	65·0	−1·5	+0·5	+1·7	−1·2	−1·8	+1·0
26	82·6	55·3	68·5	79·1	80·9	62·6	−1·6	−0·1	+1·0	−1·0	−1·0	−0·1
27	81·4	57·3	67·7	79·5	79·6	62·7	−1·8	+0·2	−0·1	−0·5	−0·2	−0·9
28	78·7	54·2	61·2	76·9	76·5	59·2	−1·8	−0·1	−0·7	−1·3	−1·2	−0·6
29	75·7	54·9	...	...	...	...	−1·9	−0·3	...	...	...	...
30	76·7	53·7	58·4	72·1	74·7	58·2	−1·3	−0·6	−0·4	−0·8	−0·5	0·0
Means	74·0	51·4	62·5	70·4	72·9	58·9	−1·5	−0·3	+0·3	−0·6	−0·3	−0·1

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 Stevenson's Screen, 4 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	72·6	54·1	65·6	72·3	66·8	61·6	−3·2	+0·9	+0·5	−1·4	−0·6	0·0
2	62·2	45·8	52·6	54·9	54·0	45·8	0·0	+0·4	−0·2	−0·1	0·0	+0·1
3	64·2	39·4	47·3	58·3	62·0	54·5	−1·0	0·0	−0·1	−1·6	+0·1	0·0
4	59·5	44·8	54·4	57·2	53·6	44·8	−1·7	+0·4	0·0	−0·2	−0·7	+0·3
5	58·7	39·5	55·5	57·5	56·3	58·1	−0·6	+0·3	+0·4	−0·1	−0·2	−0·3
6	59·8	54·1	...	...	...	...	0·0	+0·6	...	...	...	...
7	57·2	45·3	51·8	54·8	56·3	49·6	−2·5	+0·4	+0·3	−0·1	+0·4	+0·1
8	56·2	48·6	53·4	55·5	52·6	50·7	−0·6	−0·8	−0·2	−0·3	−0·1	0·0
9	54·1	50·1	51·0	50·1	54·1	50·9	−0·7	+0·1	−0·5	−0·3	−0·2	+0·1
10	51·4	45·0	48·2	48·6	49·9	47·2	+0·2	+0·4	−0·2	0·0	−0·1	+0·2
11	55·0	37·9	47·9	52·7	53·9	49·9	−0·9	+0·2	0·0	0·0	0·0	0·0
12	59·9	48·7	53·2	58·0	57·6	50·4	−1·4	+0·1	−0·2	−0·4	0·0	+0·4
13	55·2	47·0	...	...	...	...	−0·1	+0·4	...	...	...	...
14	60·0	48·3	54·7	56·0	59·6	50·8	−1·7	+0·1	+1·8	+0·2	+0·1	+0·2
15	64·2	45·6	50·9	61·6	62·4	57·2	−2·0	+0·1	−0·3	−2·2	+0·7	+0·1
16	58·0	42·5	49·6	50·1	51·3	42·5	0·0	+0·1	−0·1	−0·4	−0·4	+0·1
17	53·2	37·6	44·6	51·5	51·3	43·1	−2·1	+0·2	+0·6	−1·5	−0·3	+0·1
18	54·0	35·8	40·9	51·0	52·8	44·9	−1·1	+0·6	−0·8	−0·4	−0·1	−0·2
19	51·9	42·1	49·7	51·9	51·6	48·3	−1·1	+0·9	+0·3	0·0	−0·1	+0·3
20	49·9	44·3	...	...	...	...	−0·1	+0·7	...	...	...	...
21	51·0	38·2	43·4	50·1	49·2	44·4	−1·4	+0·4	+0·6	−0·3	+0·1	−0·5
22	45·1	39·6	42·6	43·4	42·7	40·9	+0·1	−0·6	−0·4	−0·2	−0·3	−0·5
23	44·0	39·0	39·8	42·6	43·6	39·2	−0·1	−0·2	−0·3	−0·2	−0·5	0·0
24	46·2	28·1	32·0	42·2	44·7	37·1	−0·6	0·0	−0·5	−0·9	0·0	−0·4
25	47·0	30·4	36·6	44·2	45·9	35·8	−1·1	−0·6	−0·5	−0·7	−0·3	+0·1
26	39·2	28·1	31·8	37·5	38·7	38·1	−0·5	+0·1	−0·4	−0·5	0·0	+0·1
27	43·1	29·2	...	...	...	...	−0·4	−0·2	...	...	...	...
28	45·3	27·7	31·9	43·0	44·8	33·2	−1·6	+0·3	+0·2	−1·4	+0·1	+0·3
29	40·2	32·9	34·1	37·7	39·7	37·6	+0·1	+0·6	−0·3	−0·5	0·0	+0·1
30	44·4	30·5	32·3	41·5	43·6	39·2	−0·6	0·0	−0·2	−0·4	−0·1	−0·2
31	50·2	39·0	47·3	49·5	49·5	46·5	−0·6	0·0	−0·4	−0·2	+0·1	−0·1
Means	53·3	40·6	46·0	50·9	51·4	46·0	−0·9	+0·2	0·0	−0·5	−0·1	0·0

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	74·3	54·0	65·7	72·9	67·3	62·0	−1·5	+0·8	+0·6	−0·8	−0·1	+0·4
2	62·7	44·9	52·6	54·7	54·2	45·4	+0·5	−0·5	−0·2	−0·3	+0·2	−0·3
3	64·5	38·0	47·6	59·3	61·7	54·5	−0·7	−1·4	+0·2	−0·6	−0·2	0·0
4	60·1	44·0	53·8	56·9	53·3	44·3	−1·1	−0·4	−0·6	−0·5	−1·0	−0·2
5	58·8	38·9	55·5	57·5	56·4	58·2	−0·5	−0·3	+0·4	−0·1	−0·1	−0·2
6	58·2	53·2	...	...	...	...	−1·6	−0·3	...	...	...	...
7	58·5	44·1	51·7	54·9	56·7	49·7	−1·2	−0·8	+0·2	0·0	+0·8	+0·2
8	56·5	48·7	54·0	55·6	52·6	50·4	−0·3	−0·7	+0·4	−0·2	−0·1	−0·3
9	54·4	49·3	50·7	50·0	54·4	51·2	−0·4	−0·7	−0·8	−0·4	+0·1	+0·4
10	51·2	44·9	48·5	48·7	49·9	46·8	0·0	+0·3	+0·1	+0·1	−0·1	−0·2
11	55·2	36·6	48·5	52·5	54·3	49·9	−0·7	−1·1	+0·6	−0·2	+0·4	0·0
12	60·6	48·3	54·0	58·5	57·7	50·2	−0·7	−0·3	+0·6	+0·1	+0·1	+0·2
13	55·1	46·2	...	...	...	...	−0·2	−0·4	...	...	...	...
14	61·5	48·2	53·8	55·9	60·7	51·0	−0·2	0·0	+0·9	+0·1	+1·2	+0·4
15	65·7	45·3	50·9	62·8	62·5	57·2	−0·5	−0·2	−0·3	−1·0	+0·8	+0·1
16	57·5	42·4	49·0	50·1	50·7	42·4	−0·5	0·0	−0·7	−0·4	−1·0	0·0
17	53·5	37·1	43·7	51·7	51·3	42·9	−1·8	−0·3	−0·3	−1·3	−0·3	−0·1
18	55·4	34·9	41·8	51·2	53·7	44·5	+0·3	−0·3	+0·1	−0·2	+0·8	−0·6
19	53·2	41·1	49·6	51·9	51·6	48·1	+0·2	−0·1	+0·2	0·0	−0·1	+0·1
20	50·3	43·2	...	...	...	...	+0·3	−0·4	...	...	...	...
21	51·7	38·1	42·8	50·2	49·3	44·7	−0·7	+0·3	0·0	−0·2	+0·2	−0·2
22	45·3	38·7	42·3	43·5	42·7	39·1	+0·3	−1·5	−0·7	−0·1	−0·3	−2·3
23	43·9	38·7	39·8	42·6	43·9	39·1	−0·2	−0·5	−0·3	−0·2	−0·2	−0·1
24	46·7	26·0	31·9	42·5	44·5	37·0	−0·1	−2·1	−0·6	−0·6	−0·2	−0·5
25	47·5	29·2	37·2	44·4	46·3	34·8	−0·6	−1·8	+0·1	−0·5	+0·1	−0·9
26	39·2	27·1	31·8	37·7	38·5	38·0	−0·5	−0·9	−0·4	−0·3	−0·2	0·0
27	43·1	28·8	...	...	...	...	−0·4	−0·6	...	...	...	...
28	46·6	27·0	31·8	41·7	45·1	34·3	−0·3	−0·4	+0·1	−2·7	+0·4	+1·4
29	40·5	32·3	34·4	37·9	39·7	37·5	+0·4	0·0	0·0	−0·3	0·0	0·0
30	44·7	29·2	32·2	41·6	43·7	39·4	−0·3	−1·3	−0·3	−0·3	0·0	0·0
31	51·2	38·4	49·1	49·6	49·4	46·5	+0·4	−0·6	+1·4	−0·1	0·0	−0·1
Means	53·8	39·9	46·1	51·0	51·6	45·9	−0·4	−0·5	0·0	−0·4	0·0	−0·1

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

NOVEMBER.

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

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9ʰ	Noon.	15ʰ	21ʰ	Maximum.	Minimum.	9ʰ	Noon.	15ʰ	21ʰ
d	°	°	°	°	°	°	°	°	°	°	°	°
1	56·3	37·3	42·5	52·4	53·0	42·7	+0·3	−0·4	+0·1	−0·8	+0·3	−0·2
2	50·4	35·9	42·8	47·8	46·8	35·9	+0·3	−1·1	−0·7	+0·1	−0·4	−1·7
3	49·8	32·3	...	...	...	...	−0·2	−0·5	...	...	...	...
4	51·5	45·3	47·7	51·4	50·6	47·7	−1·2	0·0	+0·9	−0·2	−0·1	+0·2
5	54·7	39·1	45·9	51·9	53·5	54·7	−0·5	−0·4	+0·7	−0·2	−0·1	−0·2
6	59·7	52·9	55·9	58·5	57·7	54·3	−0·3	−0·1	+0·1	−0·1	−0·1	−0·4
7	59·7	50·4	51·5	58·2	59·7	59·5	−0·4	−0·5	+0·5	−0·2	0·0	0·0
8	59·5	50·4	52·5	51·6	51·5	55·2	−0·5	0·0	+0·2	−0·1	+0·6	+0·3
9	57·2	48·0	52·1	53·7	52·7	48·6	−0·1	0·0	−0·1	+0·1	−0·7	+0·8
10	56·5	46·3	...	...	...	...	+0·4	+0·6	...	...	...	...
11	56·5	45·0	51·0	54·9	51·6	46·7	0·0	−0·4	+0·3	−0·6	+0·1	+0·1
12	51·0	40·9	47·7	45·5	49·0	47·0	+1·4	−1·0	+0·3	−0·3	+0·1	+1·1
13	55·0	42·1	45·7	52·6	52·2	46·7	+0·1	−1·1	0·0	−1·0	−0·4	−0·1
14	55·7	44·1	49·9	54·8	54·6	46·8	−0·4	−0·3	+0·2	−0·1	−0·1	−0·1
15	59·7	39·3	45·7	52·7	51·8	58·7	+0·8	0·0	+1·0	+0·3	+0·1	+0·1
16	62·5	46·8	61·4	62·3	61·1	47·0	−1·5	0·0	+0·7	−0·6	−0·3	+0·1
17	54·5	43·1	...	...	...	...	−0·8	−1·1	...	...	...	...
18	52·5	34·3	40·2	49·8	48·3	39·3	+0·7	0·0	+3·3	+0·1	−0·3	−0·1
19	47·2	34·3	42·1	46·3	44·5	45·4	0·0	−1·2	+0·6	+0·3	−0·1	+0·3
20	51·1	45·0	47·0	49·8	50·7	50·9	0·0	−0·1	+0·1	+0·1	+0·2	−0·1
21	51·4	42·2	45·6	51·4	50·1	49·9	+0·5	−0·7	+0·2	+0·9	−0·1	+0·1
22	51·9	44·5	50·6	50·1	51·9	44·7	−0·3	−1·0	+0·2	+0·1	+0·2	−1·0
23	46·2	34·3	37·7	39·6	45·1	41·1	0·0	−3·4	−0·3	−0·2	+0·1	+0·1
24	42·3	35·6	...	...	...	...	−0·4	−0·7	...	...	...	...
25	43·3	40·3	41·9	42·8	42·8	43·0	+0·1	−0·6	+0·2	−0·1	+0·1	+0·1
26	43·1	31·6	37·1	40·6	38·5	33·7	−0·2	−1·4	−0·2	+0·2	−0·1	−0·2
27	46·2	31·7	42·4	44·3	46·0	43·8	0·0	−0·8	+0·4	−0·1	+0·2	+0·8
28	50·0	37·1	41·6	44·8	48·3	50·0	−0·1	−0·4	+0·5	+0·1	−0·2	+0·3
29	51·9	49·0	49·6	50·6	51·4	51·9	0·0	+0·3	+0·1	−0·1	−0·2	+0·2
30	52·4	46·2	50·6	50·4	50·4	46·5	+0·7	0·0	−0·1	−0·1	+0·4	+0·1
Means	52·7	41·5	46·9	50·3	50·5	47·4	−0·1	−0·5	+0·4	−0·1	0·0	0·0

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

DECEMBER.

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

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground. Maximum.	Minimum.	9h	Noon.	15h	21h	Excess above readings of Thermometers on ordinary stand, 4 feet above the ground. Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	46·7	36·3	...	...	...	...	+0·1	−0·9	...	...	...	...
2	48·9	35·8	37·9	44·1	47·1	47·0	+0·2	−0·5	−0·7	−2·3	+0·1	+1·1
3	50·4	41·1	49·8	49·8	47·8	41·6	0·0	−0·3	+0·1	+0·1	−0·1	−0·2
4	49·2	38·7	42·8	47·1	49·1	48·4	0·0	−0·9	−0·1	−0·3	−0·1	0·0
5	56·2	48·2	53·7	54·6	55·9	52·8	+0·2	+0·2	+0·1	−0·2	+0·2	+0·1
6	52·8	37·9	47·0	47·0	44·5	38·2	+0·1	−0·3	−0·4	+0·8	+0·3	0·0
7	40·3	33·3	35·8	38·7	37·3	35·8	0·0	−0·9	+0·1	−0·4	−1·1	+0·5
8	38·8	31·2	...	...	...	...	+0·4	−0·8	...	...	...	...
9	48·7	31·9	43·7	47·5	48·5	48·2	−0·3	−0·1	0·0	+0·1	0·0	−0·2
10	48·4	34·8	43·7	44·7	43·7	35·7	−0·1	−0·4	+0·3	+0·4	+0·3	0·0
11	41·1	25·9	28·4	32·5	40·0	40·8	+0·1	−0·3	−0·2	−0·2	+0·3	+0·1
12	47·7	37·5	38·3	42·8	44·9	42·0	0·0	−0·5	−0·2	+0·8	+0·2	+0·1
13	44·3	34·8	37·4	42·0	42·6	41·5	+0·7	−0·7	0·0	−0·4	−0·1	+0·8
14	48·6	33·7	34·7	40·6	43·5	48·4	+1·3	−0·8	−0·5	+0·2	+0·8	+1·1
15	52·3	36·3	...	...	...	...	+0·8	−1·0	...	...	...	...
16	44·5	35·2	43·7	41·8	42·7	41·6	+0·7	−0·1	+2·0	−0·2	−0·2	+0·4
17	44·6	40·0	40·9	43·2	42·6	40·6	+0·4	−0·1	+0·3	−0·1	+0·1	0·0
18	41·7	35·8	38·7	41·2	40·8	39·4	0·0	−1·1	−0·3	+0·3	−0·1	−0·1
19	39·5	35·1	36·6	37·1	37·4	35·7	−0·3	−0·2	0·0	−0·2	+0·1	−0·2
20	38·8	34·3	36·2	37·7	38·3	36·8	0·0	−0·8	+0·3	−0·2	−0·1	+0·2
21	36·8	28·8	30·4	32·4	32·7	30·7	+0·1	−1·0	−0·3	−0·2	−0·1	0·0
22	35·0	24·3	...	...	...	...	−0·2	−1·2	...	...	...	...
23	37·4	31·2	33·7	35·9	35·0	33·3	+0·2	−1·0	0·0	+0·2	+0·1	−0·1
24	38·1	32·5	37·9	37·3	37·1	37·5	0·0	−0·8	+0·2	−0·1	−0·2	−0·2
25	37·7	32·1	...	...	...	...	−0·3	−0·2	...	...	...	...
26	34·5	31·2	...	...	...	...	−1·0	−0·4	...	...	...	...
27	37·2	33·3	35·9	35·3	35·4	33·8	0·0	−0·4	+0·1	−0·3	+0·4	+0·1
28	46·8	30·9	31·9	37·5	39·7	44·5	+1·8	−0·3	0·0	+0·6	+0·3	−0·3
29	48·4	44·5	...	...	...	...	+0·1	−0·1	...	...	...	...
30	54·6	47·3	51·5	53·6	54·1	52·5	−0·2	+0·6	+0·1	+0·1	+0·1	+0·4
31	52·5	43·1	50·7	50·4	50·7	43·6	−0·1	+0·8	+0·2	+0·3	+0·4	+0·9
Means	44·6	35·4	40·1	42·3	43·0	41·3	+0·2	−0·5	0·0	0·0	+0·1	+0·2

READINGS of the WET-BULB THERMOMETER placed in a STEVENSON'S SCREEN near the Ordinary Stand; and EXCESS of the READINGS above those of the corresponding THERMOMETER on the ORDINARY STAND, in the YEAR 1895.

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

JANUARY.

Days of the Month.	Readings of the Wet-bulb Thermometer in Stevenson's Screen, 4 feet above the ground. 9h	Noon.	15h	21h	Excess above readings of the Thermometer on ordinary stand, 4 feet above the ground. 9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	29.2	31.9	33.1	31.2	0.0	0.0	+ 0.3	+ 0.2
2	32.6	37.2	37.1	35.8	− 0.1	− 0.2	+ 0.4	+ 0.1
3	31.9	31.9	33.4	33.1	+ 0.1	0.0	− 0.1	+ 0.3
4	32.8	33.9	33.6	35.3	+ 0.1	+ 0.1	0.0	+ 0.3
5	35.1	35.1	34.3	32.7	+ 0.2	0.0	− 0.1	+ 0.3
7	29.5	30.4	30.7	31.3	0.0	+ 0.1	− 0.1	− 0.1
8	32.3	33.4	32.9	31.1	0.0	0.0	0.0	+ 0.2
9	31.4	31.8	31.9	31.1	− 0.2	− 0.1	− 0.2	+ 0.1
10	25.6	28.5	29.3	25.4	− 0.2	− 0.1	− 0.3	− 0.1
11	27.5	26.7	27.4	26.0	− 0.4	− 0.1	− 0.3	− 0.3
12	24.6	28.9	29.3	26.2	− 0.2	− 0.2	+ 1.4	+ 0.1
14	37.4	39.4	40.1	39.4	− 0.2	0.0	+ 0.1	− 0.1
15	37.9	38.4	39.1	39.5	+ 0.1	0.0	0.0	+ 0.1
16	39.9	42.8	43.1	42.1	+ 0.1	+ 0.2	− 0.1	+ 0.1
17	40.1	39.9	39.1	38.3	+ 0.2	+ 0.2	0.0	+ 0.2
18	37.1	40.1	42.0	37.4	+ 0.2	− 0.5	+ 0.4	0.0
19	42.1	42.9	41.7	40.7	+ 0.2	+ 0.1	+ 0.1	+ 0.2
21	38.1	37.1	35.4	32.5	− 0.1	− 0.2	+ 0.1	+ 0.3
22	29.5	30.1	31.8	32.1	− 0.2	0.0	0.0	+ 0.3
23	37.5	32.1	30.4	28.5	+ 0.2	− 0.3	− 0.1	+ 0.3
24	36.7	38.9	39.4	36.1	− 0.2	+ 0.1	− 0.1	+ 0.2
25	34.1	34.2	31.9	25.9	+ 0.1	− 0.3	− 0.3	0.0
26	28.3	30.9	29.8	24.8	− 0.1	− 0.6	0.0	− 0.3
28	24.6	24.6	27.2	24.9	− 0.1	− 0.4	− 0.2	+ 0.1
29	21.5	26.4	26.6	23.3	− 0.4	− 0.5	+ 0.1	− 0.4
30	21.5	25.6	27.8	26.2	− 0.3	− 1.0	− 0.2	+ 0.4
31	27.3	28.6	24.6	23.4	− 0.2	+ 0.1	− 0.4	− 0.1
Means	32.1	33.4	33.4	31.6	− 0.1	− 0.1	0.0	+ 0.1

FEBRUARY.

Days of the Month.	Readings of the Wet-bulb Thermometer in Stevenson's Screen, 4 feet above the ground. 9h	Noon.	15h	21h	Excess above readings of the Thermometer on ordinary stand, 4 feet above the ground. 9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	25.1	26.2	27.1	29.5	− 0.5	− 0.5	− 0.2	− 0.2
2	32.1	32.6	32.7	22.0	− 0.3	− 0.3	− 0.1	− 0.1
4	29.8	30.2	29.1	24.9	− 0.1	− 0.1	− 0.3	+ 0.1
5	21.2	25.2	24.5	19.6	− 0.1	− 0.5	− 0.3	− 0.5
6	14.9	20.4	21.4	16.8	− 0.4	− 0.4	− 0.3	− 0.3
7	14.9	20.0	20.2	13.2	− 0.2	− 1.5	− 0.7	− 0.8
8	11.0	23.6	24.0	19.7	+ 0.2	− 0.6	− 0.4	− 0.2
9	12.7	17.4	25.3	18.2	− 0.6	− 1.0	− 0.4	− 0.1
11	24.5	27.1	27.3	22.4	+ 0.1	− 0.4	− 0.3	− 0.5
12	17.8	28.8	30.4	26.0	− 0.6	− 0.3	0.0	0.0
13	16.5	26.3	31.1	24.4	− 0.6	+ 0.2	+ 0.2	− 0.1
14	22.1	23.1	22.5	22.7	+ 0.5	− 0.6	− 0.4	− 0.1
15	24.3	25.8	27.8	28.7	− 0.1	− 0.1	− 0.1	− 0.2
16	28.6	29.0	29.7	25.6	+ 0.3	− 0.4	− 0.4	− 0.1
18	27.6	32.0	34.2	33.5	− 0.1	− 0.3	+ 0.2	+ 0.4
19	31.2	34.2	34.8	30.2	− 0.3	− 0.5	− 0.6	− 0.1
20	32.7	35.1	35.7	33.9	0.0	+ 0.1	0.0	+ 0.2
21	34.1	36.9	37.3	34.4	− 0.1	+ 0.1	− 0.2	− 0.1
22	34.9	36.3	36.1	35.8	+ 0.2	− 0.4	+ 0.2	+ 0.2
23	34.5	37.0	38.5	35.0	− 0.2	− 0.3	− 0.1	+ 0.2
25	32.1	32.1	32.2	30.2	+ 0.1	+ 0.1	0.0	0.0
26	30.3	33.1	36.1	37.6	− 0.3	− 0.5	+ 0.3	+ 0.1
27	33.2	34.1	34.7	32.6	+ 0.3	− 0.7	− 0.4	− 0.1
28	30.9	35.0	37.2	37.1	+ 0.2	− 0.4	− 0.5	− 0.2
Means	25.7	29.2	30.4	27.2	− 0.1	− 0.4	− 0.2	− 0.1

MARCH.

Days of the Month.	Readings of the Wet-bulb Thermometer in Stevenson's Screen, 4 feet above the ground. 9h	Noon.	15h	21h	Excess above readings of the Thermometer on ordinary stand, 4 feet above the ground. 9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	39.9	41.0	42.9	36.9	− 0.5	+ 0.1	− 0.3	+ 0.1
2	31.4	32.3	30.9	31.9	− 0.1	− 1.1	− 0.9	+ 1.5
4	29.8	32.8	33.3	33.1	− 0.2	− 0.6	− 0.4	+ 0.5
5	31.8	36.4	36.6	33.9	− 0.1	− 0.3	+ 0.1	+ 0.2
6	34.6	37.6	37.6	35.9	− 0.1	− 0.3	− 0.4	0.0
7	36.2	38.6	41.5	36.0	0.0	− 0.2	− 1.0	− 0.1
8	35.9	39.9	40.1	38.1	0.0	− 1.0	− 0.8	+ 0.6
9	38.8	40.1	40.1	40.0	− 0.6	− 0.2	0.0	+ 0.3
11	41.2	44.1	43.8	37.3	+ 0.7	− 0.3	− 0.4	+ 0.1
12	39.5	44.0	45.4	38.1	0.0	− 0.7	− 0.4	+ 0.3
13	35.1	39.5	40.1	37.1	0.0	− 1.0	− 0.3	− 0.1
14	37.3	44.0	47.0	43.7	− 0.2	− 0.5	− 0.2	+ 0.1
15	43.5	44.4	45.0	44.2	− 0.3	− 0.1	+ 0.3	+ 0.1
16	43.1	45.5	46.7	44.1	+ 0.1	− 0.4	0.0	+ 0.1
18	43.8	48.1	49.4	42.9	+ 1.0	− 0.7	− 0.3	+ 0.3
19	40.5	44.4	47.1	45.3	− 0.1	− 0.3	− 0.2	− 0.2
20	48.2	49.1	50.0	44.1	− 0.5	− 0.3	+ 0.6	− 0.1
21	46.7	50.8	54.3	50.4	− 0.2	0.0	− 0.2	+ 0.3
22	47.3	51.6	52.9	47.7	− 0.2	− 0.8	0.0	− 0.1
23	45.2	48.1	45.3	47.1	− 0.1	− 0.4	+ 0.2	0.0
25	42.9	44.1	44.2	41.6	− 0.3	− 0.4	− 0.3	+ 0.2
26	43.8	44.1	44.7	40.1	− 0.2	− 0.5	+ 0.1	+ 0.2
27	39.9	49.1	50.8	48.1	− 0.2	+ 0.1	+ 0.2	+ 0.1
28	41.9	43.2	42.7	39.9	− 0.1	− 0.3	− 0.2	+ 0.1
29	37.9	40.3	41.8	38.1	0.0	0.0	− 0.5	+ 0.2
30	38.1	39.7	40.9	38.8	+ 0.3	− 0.4	0.0	− 0.1
Means	39.8	42.8	43.7	40.6	− 0.1	− 0.4	− 0.2	+ 0.2

APRIL.

Days of the Month.	Readings of the Wet-bulb Thermometer in Stevenson's Screen, 4 feet above the ground. 9h	Noon.	15h	21h	Excess above readings of the Thermometer on ordinary stand, 4 feet above the ground. 9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	39.6	43.1	43.1	40.1	− 0.1	− 0.6	0.0	− 0.2
2	41.0	43.1	43.5	39.9	+ 0.1	− 0.1	− 0.3	+ 0.1
3	37.3	40.1	41.1	38.1	− 0.4	− 0.5	− 0.1	− 0.3
4	37.3	38.1	39.2	35.3	− 0.4	− 0.6	− 0.5	− 0.1
5	39.3	41.4	42.2	40.1	+ 0.2	+ 0.3	− 0.1	+ 0.3
6	42.6	44.2	44.9	45.9	+ 0.1	− 0.2	0.0	+ 0.1
8	42.1	47.7	49.4	46.1	− 0.4	0.0	0.0	− 0.1
9	50.5	51.9	54.8	46.6	+ 0.1	− 0.1	− 0.1	+ 0.1
10	50.1	52.3	53.2	47.0	− 0.3	− 0.1	0.0	+ 0.3
11	46.1	48.1	48.1	43.3	+ 0.4	− 0.4	− 0.3	0.0
13	42.2	43.1	42.7	36.6	+ 0.3	+ 0.1	− 0.8	− 0.1
16	38.5	44.1	48.1	42.1	− 0.5	− 0.5	− 0.6	+ 0.3
17	45.2	51.9	56.9	50.9	− 0.5	− 0.6	− 0.5	0.0
18	49.1	52.3	52.8	48.1	− 0.3	+ 0.2	+ 0.3	− 0.1
19	46.9	51.9	51.9	48.1	− 0.2	− 0.5	+ 0.2	0.0
20	53.1	54.1	55.3	48.3	+ 0.6	− 0.6	− 0.1	− 0.2
22	48.2	52.0	52.3	51.1	− 0.5	+ 0.3	− 0.8	− 0.3
23	51.5	52.1	53.7	46.7	− 0.2	− 0.1	+ 0.2	+ 0.2
24	49.4	54.3	53.7	52.1	− 0.6	− 0.5	+ 0.1	+ 0.1
25	50.3	52.1	51.8	48.1	− 0.1	0.0	+ 0.3	0.0
26	45.9	46.9	47.1	45.9	+ 0.2	+ 0.2	− 0.1	+ 0.2
27	46.0	47.5	47.0	47.4	+ 0.2	0.0	− 0.2	0.0
29	49.0	52.9	54.4	49.7	− 0.3	+ 0.1	− 1.1	0.0
30	50.2	53.3	55.1	49.1	− 0.2	− 0.1	+ 0.6	− 0.2
Means	45.5	48.3	49.3	45.3	− 0.1	− 0.2	− 0.2	0.0

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

MAY.

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

JUNE.

Days of the Month.	Readings of the Wet-bulb Thermometer in Stevenson's Screen, 4 feet above the ground. 9h	Noon.	15h	21h	Excess above readings of the Thermometer on ordinary stand, 4 feet above the ground. 9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	58·1	58·8	56·0	50·1	+ 0·3	+ 0·1	− 0·4	− 0·2
4	57·4	57·4	58·1	57·2	− 0·8	− 1·0	− 0·3	− 0·2
5	55·1	55·8	58·1	53·8	− 0·6	− 0·2	+ 0·2	+ 0·2
6	52·7	54·1	57·1	51·1	− 0·6	− 0·8	− 1·0	− 0·1
7	57·9	61·1	61·3	53·1	− 0·4	− 0·7	− 0·9	+ 0·3
8	60·8	62·3	64·5	55·9	− 0·5	− 0·7	− 0·9	0·0
10	58·1	59·1	58·8	54·1	− 0·5	− 0·6	− 0·1	− 0·4
11	53·3	55·0	56·1	52·0	0·0	− 0·7	− 0·6	− 0·6
12	49·0	49·8	51·0	47·8	+ 0·3	+ 0·1	+ 0·1	+ 0·1
13	49·1	51·1	51·7	51·0	+ 0·2	− 0·3	− 1·2	+ 0·1
14	49·9	51·4	52·1	48·1	+ 0·2	+ 0·5	− 0·6	0·0
15	47·4	48·9	50·1	47·1	− 0·5	− 0·7	− 0·5	+ 0·4
17	53·2	55·7	56·6	49·3	− 1·0	− 0·5	0·0	0·0
18	55·3	57·3	58·3	54·9	− 0·2	− 1·0	− 0·9	+ 0·2
19	53·6	56·1	57·8	54·5	− 0·3	− 0·1	− 0·1	0·0
20	54·3	56·1	56·1	51·9	+ 0·1	− 0·6	− 0·2	+ 0·8
21	53·3	59·1	59·1	55·9	− 0·3	+ 0·1	+ 0·4	+ 0·1
22	59·6	63·8	65·1	61·8	− 0·2	+ 0·1	+ 0·2	+ 0·4
24	62·1	62·3	66·0	55·2	− 0·6	0·0	0·0	+ 0·2
25	54·5	56·4	58·2	56·0	− 0·1	− 0·4	− 0·1	+ 0·3
26	62·0	64·1	64·6	58·2	+ 0·2	− 1·1	− 0·4	− 0·2
27	57·8	57·3	61·7	56·5	− 0·1	− 0·2	− 0·7	0·0
28	59·1	59·6	59·3	57·1	+ 0·2	− 0·2	− 0·6	+ 0·2
29	59·8	60·5	60·3	57·1	− 0·3	0·0	− 0·2	− 0·3
Means	55·6	57·2	58·2	53·7	− 0·2	− 0·4	− 0·4	+ 0·1

JULY.

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

AUGUST.

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

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

SEPTEMBER.

Days of the Month.	Readings of the Wet-bulb Thermometer in Stevenson's Screen, 4 feet above the ground. 9h	Noon.	15h	21h	Excess above readings of the Thermometer on ordinary stand, 4 feet above the ground. 9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
2	63·3	67·7	65·8	58·9	+ 0·5	− 0·7	+ 0·1	+ 0·5
3	62·1	63·2	67·2	61·7	+ 0·5	− 0·3	− 0·2	+ 0·4
4	60·1	61·5	62·8	58·9	+ 0·4	− 0·1	+ 0·3	+ 0·2
5	59·2	60·9	61·7	56·4	+ 0·5	− 0·6	+ 0·3	+ 0·2
6	63·5	63·9	66·1	62·1	− 0·3	− 0·4	− 0·4	+ 0·2
7	64·1	68·9	69·9	64·0	− 0·5	+ 0·3	− 0·5	+ 0·3
9	63·2	67·1	69·1	62·0	+ 0·6	− 0·2	− 0·9	+ 0·3
10	62·8	64·3	64·1	57·6	+ 0·1	− 0·2	− 0·3	− 0·1
11	57·1	58·0	56·9	53·1	+ 0·2	− 0·1	− 0·3	+ 0·2
12	53·5	53·1	53·8	51·8	− 0·2	+ 0·1	− 0·1	+ 0·3
13	53·1	53·1	55·9	50·9	+ 0·4	+ 0·1	− 0·7	+ 0·2
14	52·7	56·1	57·4	51·8	+ 0·1	− 1·3	− 1·3	− 0·1
16	54·6	60·2	62·2	55·9	+ 0·1	− 0·3	− 0·7	+ 0·3
17	52·0	58·8	62·0	56·6	+ 0·2	− 0·6	− 0·6	+ 0·2
18	54·2	58·1	60·0	57·4	0·0	− 1·0	− 0·5	+ 0·2
19	55·2	56·9	56·1	50·8	+ 0·1	+ 0·2	− 0·1	+ 0·4
20	55·8	54·8	54·8	48·2	+ 0·4	− 0·1	− 0·9	+ 0·3
21	52·1	54·6	55·1	48·6	− 0·2	− 0·9	− 0·9	+ 0·2
23	52·3	62·3	64·5	55·9	− 0·5	− 1·0	− 1·0	− 0·1
24	64·1	69·4	70·8	61·6	+ 1·4	− 1·3	+ 0·7	+ 0·3
25	65·1	68·3	68·7	62·5	+ 0·4	− 0·3	− 1·2	+ 0·3
26	64·9	66·9	66·7	60·9	+ 0·6	− 0·7	− 0·7	+ 0·5
27	65·1	68·9	66·8	60·8	+ 0·7	− 1·2	+ 0·1	+ 0·2
28	60·0	64·1	60·3	57·4	+ 0·1	− 1·0	− 0·4	+ 0·1
30	58·1	64·5	62·1	57·9	− 0·3	− 0·7	+ 0·2	+ 0·4
Means	58·7	61·8	62·4	56·9	+ 0·2	− 0·5	− 0·4	+ 0·2

OCTOBER.

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

NOVEMBER.

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

DECEMBER.

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

(I.)—Reading 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.

1895.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	52·27	51·54	50·65	49·43	48·53	48·25	48·67	49·62	50·78	51·79	52·56	52·76
2	52·26	51·53	50·61	49·38	48·50	48·25	48·69	49·65	50·84	51·80	52·57	52·77
3	52·24	51·50	50·56	49·30	48·48	48·25	48·72	49·68	50·86	51·82	52·59	52·78
4	52·24	51·44	50·53	49·31	48·46	48·26	48·75	49·73	50·89	51·85	52·62	52·76
5	52·20	51·40	50·48	49·28	48·45	48·26	48·79	49·76	50·93	51·88	52·67	52·78
6	52·16	51·40	50·46	49·23	48·43	48·27	48·81	49·79	50·97	51·91	52·67	52·76
7	52·16	51·32	50·42	49·20	48·42	48·28	48·83	49·81	51·00	51·93	52·68	52·72
8	52·15	51·20	50·40	49·18	48·40	48·30	48·85	49·87	51·03	51·96	52·67	52·72
9	52·10	51·24	50·36	49·13	48·37	48·31	48·88	49·94	51·07	52·00	52·71	52·74
10	52·07	51·27	50·30	49·11	48·37	48·31	48·90	49·96	51·10	52·01	52·73	52·71
11	52·05	51·25	50·28	49·06	48·35	48·32	48·94	50·00	51·12	52·05	52·73	52·68
12	52·04	51·21	50·25	49·03	48·36	48·33	48·95	50·04	51·15	52·10	52·72	52·68
13	52·03	51·17	50·21	49·00	48·33	48·33	48·98	50·05	51·18	52·12	52·75	52·67
14	52·02	51·15	50·16	48·96	48·32	48·35	49·01	50·10	51·23	52·14	52·77	52·65
15	52·00	51·11	50·12	48·92	48·31	48·37	49·04	50·15	51·25	52·19	52·77	52·67
16	52·00	51·05	50·08	48·89	48·23	48·40	49·09	50·17	51·30	52·18	52·81	52·63
17	51·96	51·05	50·05	48·85	48·24	48·40	49·11	50·23	51·32	52·22	52·78	52·63
18	51·94	51·04	50·01	48·83	48·26	48·42	49·15	50·28	51·36	52·24	52·78	52·63
19	51·92	50·98	49·97	48·81	48·25	48·43	49·18	50·30	51·38	52·26	52·79	52·60
20	51·91	50·96	49·92	48·80	48·27	48·46	49·20	50·33	51·43	52·28	52·80	52·58
21	51·86	50·94	49·88	48·78	48·26	48·46	49·25	50·38	51·46	52·31	52·80	52·56
22	51·82	50·90	49·85	48·73	48·26	48·50	49·26	50·44	51·49	52·33	52·82	52·54
23	51·80	50·86	49·80	48·72	48·25	48·50	49·31	50·45	51·54	52·35	52·77	52·53
24	51·77	50·87	49·76	48·68	48·24	48·54	49·35	50·50	51·57	52·36	52·77	52·53
25	51·76	50·79	49·72	48·66	48·25	48·55	49·39	50·52	51·66	52·39	52·79	52·50
26	51·71	50·75	49·67	48·63	48·23	48·56	49·41	50·55	51·65	52·38	52·79	52·49
27	51·69	50·72	49·64	48·61	48·25	48·60	49·45	50·59	51·68	52·41	52·79	52·48
28	51·66	50·69	49·60	48·58	48·23	48·61	49·47	50·63	51·71	52·45	52·80	52·45
29	51·65		49·55	48·56	48·25	48·63	49·52	50·68	51·75	52·46	52·81	52·47
30	51·60		49·51	48·55	48·25	48·65	49·55	50·72	51·75	52·48	52·80	52·47
31	51·59		49·48		48·25		49·59	50·75		52·53		52·45
Means	51·96	51·12	50·07	48·94	48·32	48·41	49·10	50·18	51·28	52·17	52·74	52·63

The mean of the twelve monthly values is 50°·58.

(II.)—Reading 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.

1895.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	50·80	48·11	45·42	44·36	45·60	48·37	51·61	54·50	55·98	57·01	56·00	53·33
2	50·73	48·03	45·32	44·37	45·69	48·46	51·70	54·57	56·10	56·91	55·88	53·28
3	50·69	47·92	45·21	44·42	45·78	48·52	51·80	54·62	56·11	56·90	55·80	53·22
4	50·63	47·88	45·13	44·48	45·82	48·63	51·90	54·71	56·14	56·93	55·71	53·11
5	50·59	47·80	45·07	44·51	45·90	48·73	52·00	54·79	56·21	56·93	55·60	53·09
6	50·43	47·70	45·00	44·52	45·97	48·83	52·14	54·80	56·25	56·99	55·52	53·00
7	50·41	47·58	44·90	44·56	46·06	49·00	52·27	54·84	56·31	56·95	55·40	52·88
8	50·35	47·48	44·83	44·60	46·12	49·10	52·39	54·92	56·38	56·98	55·27	52·80
9	50·28	47·42	44·76	44·60	46·20	49·22	52·47	55·01	56·41	56·95	55·15	52·79
10	50·17	47·30	44·68	44·68	46·27	49·30	52·56	55·08	56·43	56·94	55·01	52·67

(II.)—Reading 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.*

1895.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
11	50·05	47·21	44·61	44·68	46·32	49·41	52·64	55·09	56·41	56·98	54·83	52·53
12	50·00	47·11	44·56	44·70	46·46	49·51	52·70	55·14	56·48	57·00	54·77	52·51
13	49·90	47·00	44·51	44·72	46·52	49·62	52·82	55·15	56·51	56·97	54·70	52·43
14	49·82	46·93	44·44	44·76	46·60	49·75	52·93	55·22	56·56	56·98	54·62	52·34
15	49·72	46·82	44·39	44·75	46·67	49·87	53·00	55·28	56·60	56·98	54·52	52·30
16	49·67	46·74	44·32	44·80	46·74	50·06	53·11	55·33	56·68	56·89	54·50	52·20
17	49·53	46·65	44·31	44·81	46·83	50·12	53·23	55·40	56·69	56·85	54·38	52·09
18	49·44	46·58	44·27	44·85	46·91	50·28	53·32	55·42	56·78	56·81	54·25	52·01
19	49·33	46·42	44·24	44·89	47·02	50·38	53·40	55·48	56·79	56·80	54·20	51·92
20	49·28	46·34	44·22	44·92	47·18	50·52	53·46	55·48	56·82	56·71	54·13	51·84
21	49·11	46·25	44·20	45·01	47·30	50·61	53·50	55·52	56·87	56·70	54·08	51·71
22	49·00	46·16	44·17	45·05	47·40	50·76	53·69	55·59	56·89	56·60	54·01	51·66
23	48·91	46·06	44·20	45·11	47·51	50·85	53·80	55·58	56·91	56·52	53·88	51·57
24	48·81	45·90	44·17	45·13	47·61	50·93	53·91	55·60	57·00	56·49	53·81	51·50
25	48·71	45·83	44·19	45·21	47·74	51·04	53·99	55·61	57·01	56·43	53·77	51·38
26	48·60	45·72	44·20	45·24	47·83	51·15	54·08	55·67	57·01	56·32	53·70	51·33
27	48·50	45·60	44·20	45·33	47·94	51·25	54·18	55·72	57·03	56·30	53·62	51·24
28	48·44	45·51	44·23	45·38	48·01	51·33	54·20	55·80	57·02	56·23	53·59	51·13
29	48·38		44·23	45·47	48·11	51·41	54·28	55·87	57·02	56·14	53·54	51·11
30	48·29		44·28	45·53	48·22	51·50	54·34	55·92	57·00	56·10	53·47	51·00
31	48·21		44·31		48·30		54·48	55·91		56·07		50·90
Means	49·57	46·86	44·53	44·85	46·86	49·95	53·09	55·28	56·61	56·72	54·59	52·15

The mean of the twelve monthly values is 50°·92.

(III.)—Reading 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.

1895.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	48·72	44·43	...	44·21	47·89	52·67	57·38	59·91	60·67	60·38	54·60	51·49
2	48·60	44·27	...	44·22	47·91	53·02	57·57	59·88	60·80	60·28	54·27	51·40
3	48·38	44·10	...	44·30	48·04	53·27	57·72	59·80	60·78	60·30	54·01	51·40
4	48·12	43·97	...	44·30	48·17	53·50	57·85	59·82	60·77	60·37	53·82	51·30
5	47·92	43·85	...	44·32	48·22	53·70	57·99	59·82	60·80	60·31	53·61	51·22
6	47·76	43·70	...	44·35	48·37	53·87	58·09	59·76	60·87	60·30	53·50	51·11
7	47·50	...	...	44·38	48·51	54·10	58·16	59·70	61·48	60·07	53·40	50·99
8	47·30	...	...	44·42	48·67	54·24	58·20	59·76	61·10	59·91	53·27	50·92
9	47·12	...	...	44·42	48·85	54·42	58·23	59·70	61·14	59·70	53·21	50·90
10	46·90	...	...	44·50	49·05	54·54	58·28	59·70	61·17	59·50	53·22	50·72
11	46·73	...	...	44·53	49·30	54·77	58·38	59·73	61·16	59·39	53·29	50·50
12	46·59	...	...	44·70	49·57	55·00	58·45	59·71	61·21	59·21	53·23	50·37
13	46·38	...	...	44·91	49·78	55·21	58·68	59·70	61·28	59·00	53·30	50·20
14	46·20	...	...	45·03	50·01	55·41	58·81	59·80	61·28	58·80	53·30	50·01
15	46·00	...	...	45·20	50·28	55·51	58·93	59·85	61·20	58·62	53·28	49·79

(III.)—Reading 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.*

1895.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
16	45·82	...	...	45·37	50·60	55·64	59·10	59·87	61·17	58·39	53·22	49·60
17	45·70	...	...	45·47	50·83	55·68	59·22	59·86	61·01	58·22	53·09	49·25
18	45·60	...	...	45·60	51·13	55·73	59·30	59·83	60·94	58·07	53·00	49·21
19	45·52	...	...	45·71	51·30	55·78	59·30	59·90	60·72	57·97	53·00	49·17
20	45·50	...	...	45·88	51·38	55·83	59·38	59·90	60·70	57·76	52·95	49·10
21	45·41	...	...	46·09	51·43	55·92	59·91	59·98	60·62	57·58	52·85	48·99
22	45·38	...	...	46·25	51·42	56·03	59·80	60·11	60·59	57·38	52·73	48·90
23	45·42	...	...	46·50	51·41	56·08	59·72	60·19	60·49	57·12	52·57	48·78
24	45·40	...	...	46·70	51·40	56·16	59·80	60·31	60·42	56·92	52·50	48·63
25	45·38	...	...	46·96	51·48	56·30	59·72	60·40	60·32	56·71	52·41	48·45
26	45·20	...	...	47·13	51·51	56·49	59·80	60·53	60·28	56·40	52·30	48·30
27	45·13	...	43·60	47·34	51·65	56·68	59·76	60·62	60·20	56·14	52·17	48·10
28	45·07	...	43·72	47·56	51·78	56·84	59·70	60·68	60·22	55·86	52·02	47·90
29	44·93		43·90	47·67	52·01	57·01	59·88	60·70	60·29	55·51	51·89	47·73
30	44·80		44·02	47·77	52·23	57·20	59·89	60·70	60·31	55·18	51·66	47·50
31	44·62		44·16		52·42		59·97	60·65		54·90		47·33
Means	46·29	...	...	45·53	50·21	55·22	58·93	60·03	60·80	58·27	53·06	49·65

At temperatures below 43°·60 the spirit of this thermometer passes beyond the range of the scale, and descends into the capillary tube. The readings were out of range from February 7 to March 26 inclusive.

(IV.)—Reading 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.

1895.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	44·00	38·55	...	42·81	48·60	57·20	61·74	61·95	62·94	62·09	49·19	48·30
2	43·41	38·35	...	42·76	48·87	57·32	61·77	61·89	62·94	61·88	49·23	48·25
3	42·91	38·22	...	42·79	48·91	57·50	61·70	61·90	62·97	61·71	49·30	47·91
4	42·59	38·01	...	42·81	49·10	57·30	61·59	61·90	63·09	61·02	49·22	47·80
5	42·39	37·86	...	42·72	49·40	57·43	61·46	61·60	63·40	60·33	49·38	47·69
6	42·28	37·74	...	42·70	49·76	57·50	61·30	61·25	63·44	59·33	49·60	47·79
7	42·00	37·50	...	42·75	50·06	57·81	61·18	61·08	63·83	59·21	50·02	47·82
8	41·62	37·30	...	42·90	50·50	58·07	61·21	61·00	63·72	58·90	50·40	47·35
9	41·40	37·10	...	43·01	51·20	58·57	61·61	61·00	63·98	58·50	50·91	46·77
10	41·20	37·00	37·40	43·62	51·70	59·10	62·00	61·30	63·99	58·18	51·30	46·27
11	40·90	36·90	37·90	44·27	52·11	59·60	62·40	61·76	64·02	57·80	51·30	46·20
12	40·61	36·90	38·36	44·68	52·50	59·60	62·71	61·98	63·71	57·21	51·35	45·81
13	40·30	...	38·82	44·90	53·10	59·40	62·98	61·82	63·30	56·87	51·10	45·60
14	40·10	...	39·20	45·03	53·83	59·00	62·73	61·76	62·74	56·69	50·80	45·38
15	40·12	...	39·37	45·12	54·43	58·72	62·80	61·50	62·31	56·62	50·50	45·00
16	40·30	...	39·80	45·20	54·70	58·50	62·76	61·56	61·89	56·51	50·40	45·21
17	40·50	...	40·20	45·30	54·41	58·37	62·72	61·62	61·50	56·32	50·70	44·91
18	40·82	...	40·59	45·73	53·83	58·40	62·80	61·94	61·50	56·00	50·75	44·96
19	40·91	...	40·95	46·23	53·16	58·34	63·06	62·30	61·40	55·50	50·36	44·92
20	41·04	...	41·25	46·71	52·69	58·52	63·20	62·50	61·40	55·16	49·80	44·80

(IV.)—Reading 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.*

1895.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
21	41·43	...	41·55	47·20	52·31	58·67	63·11	62·90	61·00	54·91	49·59	44·55
22	41·62	...	42·00	47·70	52·12	58·81	62·71	63·30	60·60	54·52	49·60	44·20
23	41·48	...	42·48	48·01	52·37	59·28	62·30	63·62	60·37	54·10	49·61	43·75
24	41·00	...	42·63	48·31	52·62	59·68	62·32	63·81	60·42	53·59	49·42	43·40
25	40·69	...	43·09	48·59	53·01	60·21	62·34	63·70	60·70	52·90	49·00	43·13
26	40·20	...	43·23	48·71	53·60	60·50	62·59	63·30	61·09	52·15	48·68	43·00
27	40·12	...	43·21	48·78	54·20	60·83	62·74	63·05	61·47	51·41	48·31	42·70
28	39·80	...	43·24	48·62	54·55	61·32	63·00	62·87	61·80	50·80	47·94	42·54
29	39·42		43·30	48·54	55·11	61·55	62·88	62·80	61·90	50·17	47·80	42·50
30	39·11		43·16	48·47	55·80	61·71	62·39	62·90	62·00	49·70	48·00	42·72
31	38·81		42·90		56·44		62·13	62·94		49·32		43·49
Means	41·07	...	...	45·50	52·42	58·96	62·33	62·22	62·31	56·11	49·79	45·31

At temperatures below 36°·90 the spirit of this thermometer passes beyond range of the scale, and descends into the capillary tube. The readings were out of range from February 13 to March 9 inclusive.

(V.)—Reading 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.

1895.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	34·9	32·0	35·0	41·1	52·9	63·1	62·1	61·0	61·1	64·8	45·3	44·0
2	35·2	33·0	33·2	43·0	49·0	59·8	63·0	62·3	65·0	59·0	45·0	42·0
3	35·8	31·2	32·7	42·0	50·3	60·0	62·7	61·3	63·9	55·0	44·9	46·6
4	36·1	33·0	33·0	42·0	52·0	61·0	63·1	60·7	65·0	55·9	47·6	44·1
5	37·9	30·2	34·0	42·0	51·0	60·0	61·8	59·8	64·0	54·2	48·3	48·1
6	35·8	29·0	35·7	43·3	53·2	60·0	62·1	60·0	66·0	56·3	51·2	46·9
7	35·0	27·8	36·8	43·0	55·0	62·3	63·0	59·2	65·3	53·9	50·1	41·1
8	36·0	26·9	37·0	43·9	55·3	64·0	65·0	60·2	64·8	54·9	52·0	39·0
9	36·2	25·2	39·1	48·0	56·1	65·0	67·0	63·0	65·0	53·7	52·0	41·9
10	33·3	27·0	40·0	49·4	55·9	65·0	66·0	64·7	66·1	52·0	51·0	43·7
11	32·4	29·0	39·4	47·2	56·7	62·9	66·1	62·7	62·2	50·9	51·2	37·2
12	33·1	26·2	40·1	46·1	60·0	59·8	63·6	61·7	60·2	53·1	47·8	41·7
13	35·0	27·2	40·0	45·0	62·1	57·7	62·8	61·0	59·2	53·0	47·9	40·3
14	36·0	27·2	39·1	45·2	61·9	58·1	64·2	61·0	58·0	54·0	48·2	40·0
15	37·2	29·2	43·0	44·7	60·0	57·1	63·0	61·0	58·9	54·3	47·2	45·1
16	38·3	31·0	43·0	45·0	54·2	58·1	64·0	63·7	59·1	54·0	54·0	42·0
17	39·1	27·8	43·8	48·2	50·4	59·0	66·0	64·0	59·0	50·0	49·9	42·5
18	37·8	30·8	46·9	48·5	51·1	59·6	67·4	64·0	60·2	48·2	45·1	41·6
19	39·0	32·2	46·5	49·0	51·2	60·0	65·2	64·3	60·0	51·0	44·6	40·3
20	42·3	32·8	46·5	52·5	50·0	59·8	63·0	66·0	57·1	50·9	47·5	39·9
21	40·3	33·0	46·9	52·8	52·2	61·6	60·6	66·0	56·9	49·0	47·4	38·0
22	36·2	33·3	45·0	52·2	53·3	64·4	61·0	68·2	57·2	48·1	49·0	35·0
23	35·4	33·0	45·8	52·8	56·2	65·1	61·6	67·0	58·2	46·3	44·0	37·0
24	37·2	33·3	47·0	52·2	55·0	66·2	64·0	64·2	64·0	42·0	42·7	38·8
25	36·0	33·0	45·2	51·3	56·0	62·4	65·1	61·0	64·2	43·2	44·1	37·1

(V.)—Reading 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.*

1895.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
26	33·3	31·0	44·8	50·8	58·0	66·8	66·0	62·8	64·3	41·0	42·8	37·0
27	33·0	32·0	44·0	49·2	58·4	67·1	66·0	63·1	64·5	41·2	43·0	38·0
28	32·9	33·0	44·8	49·4	57·9	66·4	62·0	62·3	63·0	40·9	44·0	37·0
29	31·0		42·2	48·9	59·2	66·9	61·2	64·1	64·2	40·7	47·4	42·3
30	32·0		41·8	51·1	64·0	65·0	60·9	65·0	63·2	40·1	49·0	44·9
31	31·4		42·0		64·9		61·9	62·0		45·0		47·0
Means	35·6	30·4	41·1	47·3	55·6	62·1	63·6	62·8	62·0	50·2	47·5	41·3

The mean of the twelve monthly values is 49°·96.

(VI.)—Reading 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.

1895.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	31·6	28·9	41·8	46·8	61·2	66·8	66·0	65·2	68·1	72·2	50·3	41·0
2	36·9	34·0	37·0	45·0	54·9	63·0	65·0	64·0	77·0	56·2	46·0	42·8
3	33·8	31·2	31·6	41·8	59·2	70·1	65·1	61·2	73·1	58·0	48·0	49·0
4	35·3	33·5	34·8	43·8	59·0	62·7	64·6	64·1	69·4	56·2	51·0	46·0
5	37·1	29·0	37·9	45·2	55·0	61·0	64·8	64·5	70·6	57·2	51·3	54·0
6	31·0	22·6	40·3	47·5	64·9	61·3	69·7	59·9	71·9	56·3	57·0	44·8
7	31·7	24·0	39·2	45·2	63·8	73·1	73·0	60·1	74·0	54·0	57·6	38·9
8	34·0	26·0	43·8	51·7	63·7	74·0	76·8	66·2	70·6	55·3	52·5	36·2
9	33·3	18·6	43·6	56·1	58·2	74·8	77·0	68·1	74·0	50·9	51·2	46·4
10	28·2	27·2	47·0	57·8	63·2	66·1	72·8	70·0	71·7	49·0	54·7	42·8
11	28·6	31·3	50·3	54·3	67·6	67·1	71·2	64·2	64·0	52·3	53·2	32·3
12	30·3	27·3	36·9	52·0	74·8	60·5	63·2	65·9	59·8	56·7	46·0	41·3
13	40·0	24·8	43·8	53·0	73·2	59·8	69·0	60·0	60·5	53·9	51·3	40·3
14	39·9	25·8	47·8	50·8	69·0	62·2	66·8	66·0	61·7	56·6	54·0	39·0
15	38·6	28·5	49·5	48·5	61·0	60·0	65·2	65·7	63·4	60·2	51·3	47·0
16	42·6	33·0	47·8	45·9	53·0	65·0	70·0	70·2	66·2	51·4	61·7	42·0
17	41·7	28·7	52·8	56·2	46·0	65·0	74·8	71·3	60·2	51·2	52·4	42·5
18	43·0	34·4	52·9	57·0	51·2	68·3	73·6	72·8	66·7	48·0	45·8	40·7
19	43·0	35·9	47·5	57·3	48·8	62·2	68·2	74·5	58·8	51·3	45·9	37·3
20	49·3	36·5	51·0	63·5	48·4	65·8	64·0	72·2	61·1	49·0	50·0	37·9
21	38·7	38·0	51·9	56·8	58·8	72·2	58·8	74·0	62·2	50·0	48·0	36·5
22	32·0	39·0	54·4	57·5	60·4	73·0	65·8	75·9	65·2	44·6	51·1	31·9
23	34·4	36·8	52·2	55·6	65·2	73·2	67·2	73·0	65·2	43·0	39·7	35·0
24	40·0	40·7	53·3	60·9	61·0	70·0	70·1	66·6	74·2	41·0	39·2	37·7
25	36·8	34·6	51·2	54·9	61·0	69·7	68·8	63·5	76·4	43·5	42·4	33·5
26	32·0	36·8	48·0	50·1	65·0	77·3	72·2	64·9	74·5	36·0	38·9	34·0
27	38·3	38·0	48·0	48·8	67·7	73·8	69·8	68·2	73·8	39·3	43·3	35·5
28	27·3	38·2	46·2	50·6	62·0	75·2	60·0	68·0	73·9	41·8	43·9	35·1
29	28·0		43·0	54·7	68·0	71·9	62·2	72·1	73·0	37·3	50·4	47·3
30	27·2		44·0	60·3	80·5	68·9	60·0	71·1	69·2	39·0	50·3	53·2
31	32·4		43·2		71·0		64·9	65·2		49·9		49·2
Means	35·4	31·6	45·6	52·3	61·8	67·8	67·8	67·4	68·3	50·4	49·3	41·0

The mean of the twelve monthly values is 53°·22.

ABSTRACT of the CHANGES of the DIRECTION of the WIND, as derived from the Records of OSLER'S ANEMOMETER in the Year 1895.

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

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

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
January.					
d h	d h				
1. 10	1. 11	N.N.W.	N.	22½	
1. 18	1. 18½	N.	N.N.W.		22½
1. 22	1. 22½	N.N.W.	N.W.		22½
1. 23	1. 23½	N.W.	W.		45
2. 0½	2. 0¾	W.	W.S.W.		22½
2. 8½	2. 10	W.S.W	W.	22½	
2. 11	2. 12	W.	N.W.	45	
2. 13	2 15½	N.W.	W.S.W.		67½
3. 0¾	3. 1¼	W.S.W	W.	22½	
3. 2	3. 3	W.	N.W.	45	
3. 4	3. 5	N.W.	N.	45	
4. 1	4. 2½	N.	N.N.E.	22½	
4. 7½	4. 8½	N.N.E.	N.		22½
6. 0½	6. 1	N.	N.E.	45	
6. 1½	6. 2	N.E.	N.N.E.		22½
6. 4½	6. 5½	N.N.E.	N.		22½
6. 9	6. 9½	N.	S.		180
6. 11	6. 11½	S.	S.W.	45	
6. 16	6. 16½	S.W.	S.		45
6. 18	6. 19	S.	S.E.		45
6. 21	6. 22	S.E.	E.N.E.		67½
7. 1	7. 1½	E.N.E.	N.N.E.		45
7. 6	7. 7	N.N.E.	N.E.	22½	
7. 8	7. 9	N.E.	N.N.E.		22½
7. 10	7. 10½	N.N.E.	N.		22½
8. 10½	8. 11½	N.	N.N.E.	22½	
8. 15	8. 18	N.N.E.	N.		22½
9. 0	9. 4	N.	N.N.E.	22½	
9. 8½	9. 10	N.N.E.	N.E.	22½	
9. 12¾	9. 13	N.E.	E.	45	
9. 14	9. 14¼	E.	N.E.		45
9. 15½	9. 16	N.E.	N.		45
10. 1½	10. 2	N.	N.N.W.		22½
10. 10	10. 12	N.N.W.	N.	22½	
10. 15½	10. 16	N.	N.N.E.	22½	
10. 18	10. 18½	N.N.E.	N.		22½
11. 15	11. 17	N.	S.	180	
11. 21	11. 21½	S.	S.E.		45
11. 22½	11. 23	S.E.	S.	45	
11. 23½	12. 0	S.	E.		90
12. 3½	12. 4	E.	E.S.E.	22½	
12. 9	12. 10	E.S.E.	S.E.	22½	
12. 18	12. 21	S.E.	E.		45
13. 5	13. 9	E.	S.S.E.	67½	
13. 14	13. 15	S.S.E.	S.E.		22½
14. 11	14. 12	S.E.	S.	45	
14. 13½	14. 15	S.	S.S.E.		22½
14. 21	14. 22	S.S.E.	S.E.		22½
15. 10	15. 12	S.E.	S.S.E.	22½	
15. 15	15. 17	S.S.E.	S.E.		22½
Jan.—*cont.*					
d h	d h				
15. 19	15. 21	S.E.	S.S.E.	22½	
16. 9	16. 11	S.S.E.	S.	22½	
17. 2	17. 7	S.	S.W.	45	
18. 3	18. 7	S.W.	S.S.W.		22½
18. 11	18. 12	S.S.W.	S.W.	22½	
18. 14	18. 15	S.W.	S.S.W.		22½
18. 23	19. 0	S.S.W.	S.		22½
19. 3	19. 5	S.	S.S.E.		22½
19. 12	19. 13½	S.S.E.	S.E.		22½
19. 15½	19. 17	S.E.	E.S.E.		22½
20. 0	20. 1½	E.S.E.	S.	67½	
20. 4	20. 5	S.	S.S.W.	22½	
20. 16	20. 18	S.S.W.	S.		22½
20. 22¾	20. 23	S.	N.		180
21. 5	21. 7	N.	N.N.E.	22½	
21. 11½	21. 12	N.N.E.	N.		22½
21. 14	21. 16	N.	N.N.W.		22½
21. 20	21. 23	N.N.W.	N.W.		22½
22. 1	22. 4	N.W.	W.S.W.		67½
22 5½	22. 7	W.S.W.	S.S.W.		45
22. 14	22. 17	S.S.W.	N.W.	112½	
22. 20½	22. 23½	N.W.	S.S.W.		112½
23. 3	23. 7	S.S.W.	W.S.W.	45	
23. 9½	23. 9¾	W.S.W.	N.N.W.	90	
23. 10½	23. 11	N.N.W.	N.W.		22½
23. 14	23. 14¼	N.W.	N.N.W.	22½	
23. 19	23. 22	N.N.W.	N.W.		22½
24. 0	24. 2	N.W.	S.W.		90
24. 12	24. 12½	S.W.	W.S.W.	22½	
24. 18	24. 19½	W.S.W.	W.N.W.	45	
25. 2	25. 3	W.N.W.	N.N.W.	45	
25. 9	25. 10	N.N.W.	N.W.		22½
25. 16½	25. 16¾	N.W.	N.N.W.	22½	
25. 18	25. 20	N.N.W.	W.N.W.		45
26. 3	26. 4	W.N.W.	N.W.	22½	
26. 6½	26. 9	N.W.	N.	45	
26. 17	26. 17½	N.	E.N.E.	67½	
26. 19	26. 19½	E.N.E.	S.S.E.	90	
26. 21½	26. 23	S.S.E.	W.S.W.	90	
27. 1	27. 3½	W.S.W.	S.E.		112½
27. 4½	27. 5½	S.E.	S.W.	90	
27. 10	27. 11	S.W.	S.S.W.		22½
27. 14½	27. 16	S.S.W.	S.		22½
27. 21	27. 23½	S.	S.W.	45	
28. 3	28. 4	S.W.	W.N.W.	67½	
28. 6	28. 8	W.N.W.	N.N.W.	45	
28. 21	29. 1	N.N.W.	S.W.		112½
29. 7	29. 8	S.W.	S.S.W.		22½
29. 14	29. 16	S.S.W.	N.E.	202½	
30. 3	30. 6	N.E.	N.N.E.		22½
30. 23	31. 1	N.N.E.	N.		22½
31. 6	31. 8	N.	N.N.W.		22½
31. 11	31. 12	N.N.W.	N.	22½	
31. 13	31. 13½	N.	N.N.E.	22½	
			Sums	2340	2295
February.					
1. 0	1. 1½	N.N.E.	E.S.E.	90	
1. 2½	1. 3	E.S.E.	E.N.E.		45
1. 7	1. 7½	E.N.E.	N.N.E.		45
1. 9½	1. 11	N.N.E.	E.N.E.	45	
1. 13	1. 15	E.N.E.	N.N.E.		45
1. 19½	1. 20	N.N.E.	N.		22½
1. 23	2. 0	N.	N.N.W.		22½
2. 6	2. 9½	N.N.W.	N.N.E.	45	
2. 12	2. 13	N.N.E.	N.E.	22½	
2. 14	2. 15¼	N.E.	S.E.	90	
2. 18	2. 19	S.E.	E.		45
3. 0	3. 1½	E.	N.E.		45
3. 3	3. 4	N.E.	E.N.E.	22½	
3. 16	3. 18	E.N.E.	N.E.		22½
4. 1	4. 4	N.E.	N.N.E.		22½
4. 9	4. 11	N.N.E.	N.E.	22½	
5. 17	5. 18	N.E.	N.N.E.		22½
6. 5½	6. 6	N.N.E.	N.		22½
6. 8	6. 9	N.	E.N.E.	67½	
6. 18	6. 19	E.N.E.	N.E.		22½
6. 22½	7. 0	N.E.	E.N.E.	22½	
7. 9	7. 10	E.N.E.	N.E.		22½
7. 11	7. 12	N.E.	E.	45	
7. 22	7. 23	E.	N.E.		45
8. 1	8. 2	N.E.	E.N.E.	22½	
8. 4½	8. 5	E.N.E.	N.N.E.		45
8. 12	8. 13	N.N.E.	N.		22½
8. 15	8. 16	N.	N.N.W.		22½
9. 5	9. 6	N.N.W.	S.S.W.		135
9. 8½	9. 9½	S.S.W.	S.S.E.		45
9. 11½	9. 13	S.S.E.	E.S.E.		45
9. 21½	9. 22	E.S.E.	E.		22½
10. 0	10. 1	E.	E.N.E.		22½
10. 4	10. 6	E.N.E.	E.	22½	
10. 18	10. 20	E.	E.N.E.		22½
11. 6	11. 10	E.N.E.	N.E.		22½
11. 16	11. 17	N.E.	N.N.E.		22½
11. 21	11. 22	N.N.E.	N.N.W.		45

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

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
Feb.—cont.					
d h	d h				
12. 0½	12. 2	N.N.W.	W.S.W.		90
12. 10	12. 10½	W.S.W.	N.N.W.	90	
12. 15	12. 16	N.N.W.	N.W.		22½
12. 19½	12. 20½	N.W.	W.S.W.		67½
13. 3	13. 4½	W.S.W.	S.W.		22½
13. 11	13. 13	S.W.	E.N.E.	202½	
13. 15	13. 15½	E.N.E.	E.	22½	
13. 20½	13. 22	E.	S.E.	45	
14. 0	14. 1	S.E.	E.N.E.		67½
14. 4½	14. 6	E.N.E.	E.S.E.	45	
14. 10	14. 12	E.S.E.	E.		22½
15. 1	15. 2	E.	E.N.E.		22½
15. 7	15. 10	E.N.E.	N.E.		22½
16. 21	16. 23	N.E.	N.N.E.		22½
17. 5½	17. 6	N.N.E.	N.N.W.		45
17. 7¼	17. 7½	N.N.W.	W.		67½
17. 8½	17. 9½	W.	N.W.	45	
17. 11	17. 13	N.W.	E.N.E.	112½	
17. 22¾	17. 23	E.N.E.	N.		67½
18. 1½	18. 1¾	N.	N.N.W.		22½
18. 2½	18. 3½	N.N.W.	N.E.	67½	
18. 4¾	18. 6	N.E.	W.S.W.		157½
18. 9½	18. 9¾	W.S.W.	N.N.W.	90	
18. 11½	18. 12½	N.N.W.	N.	22½	
19. 4	19. 5	N.	N.E.	45	
19. 13	19. 14	N.E.	E.N.E.	22½	
19. 15½	19. 16	E.N.E.	N.E.		22½
20. 1½	20. 3	N.E.	N.N.E.		22½
20. 19½	20. 20½	N.N.E.	N.E.	22½	
20. 22	21. 0	N.E.	N.		45
21. 10	21. 11	N.	N.N.E.	22½	
21. 20½	21. 22	N.N.E.	N.		22½
23. 2½	23. 3	N.	N.N.W.		22½
23. 5½	23. 7½	N.N.W.	S.W.		112½
23. 11	23. 12	S.W.	W.S.W.	22½	
23. 13½	23. 14	W.S.W.	N.W.	67½	
23. 18	23. 20	N.W.	W.S.W.		67½
24. 0½	24. 1½	W.S.W.	N.W.	67½	
24. 2½	24. 3	N.W.	W.S.W.		67½
24. 6	24. 8	W.S.W.	S.W.		22½
24. 16	24. 17¾	S.W.	W.	45	
24. 19½	24. 20	W.	N.N.W.	67½	
24. 21½	25. 0	N.N.W.	N.N.E.	45	
25. 6	25. 9	N.N.E.	N.E.	22½	
26. 2	26. 3	N.E.	N.		45
26. 6	26. 7	N.	N.N.W.		22½
26. 10½	26. 12	N.N.W.	W.S.W.		90
26. 19	26. 22	W.S.W.	N.	112½	
27. 0	27. 2	N.	N.N.W.		22½
28. 3	28. 4½	N.N.W.	N.W.		22½
28. 5¾	28. 6	N.W.	W.		45
28. 8	28. 8¾	W.	W.S.W.		22½
28. 17	28. 18	W.S.W.	S.W.		22½
			Sums	1822½	2340

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
March.					
d h	d h				
1. 12	1. 12½	S.W.	W.S.W.	22½	
1. 15	1. 16	W.S.W.	W.	22½	
1. 20	1. 22½	W.	S.W.		45
2. 1	2. 3	S.W.	N.W.	90	
2. 6½	2. 9	N.W.	N.	45	
2. 12	2. 14½	N.	N.W.		45
2. 18½	2. 18¾	N.W.	S.W.		90
2. 20	2. 22	S.W.	N.N.W.	112½	
3. 3½	3. 4	N.N.W.	W.S.W.		90
3. 11	3. 11½	W.S.W.	N.	112½	
3. 17	3. 18	N.	N.N.W.		22½
3. 22	3. 23	N.N.W.	N.W.		22½
4. 3½	4. 4½	N.W.	N.N.W.	22½	
4. 11	4. 12	N.N.W.	N.	22½	
4. 17	4. 17½	N.	N.N.W.		22½
5. 10	5. 11	N.N.W.	N.	22½	
5. 15½	5. 16	N.	N.N.W.		22½
5. 18	5. 19	N.N.W.	S.W.	247½	
5. 21	5. 22	S.W.	S.S.W.		22½
6. 7	6. 8	S.S.W.	S.		22½
6. 10	6. 10½	S.	S.S.W.	22½	
6. 16	6. 18	S.S.W.	S.		22½
7. 10½	7. 11½	S.	S.S.W.	22½	
7. 17	7. 17½	S.S.W.	S.		22½
8. 0	8. 0½	S.	S.S.E.		22½
8. 18	8. 19	S.S.E.	S.E.		22½
9. 0	9. 1	S.E.	S.S.E.	22½	
9. 5	9. 6½	S.S.E.	S.E.		22½
9. 8	9. 9	S.E.	E.S.E.		22½
9. 14½	9. 15	E.S.E.	S.E.	22½	
9. 18½	9. 19	S.E.	S.S.E.	22½	
10. 2	10. 3½	S.S.E.	S.S.W.	45	
11. 2	11. 3	S.S.W.	S.		22½
11. 14	11. 14½	S.	S.E.		45
11. 15½	11. 16	S.E.	S.S.E.	22½	
11. 18½	11. 19½	S.S.E.	E.		67½
11. 21	11. 22	E.	E.N.E.		22½
12. 3½	12. 4½	E.N.E.	N.N.E.		45
12. 8	12. 9	N.N.E.	N.E.	22½	
12. 13	12. 13½	N.E.	N.N.E.		22½
12. 21	12. 21½	N.N.E.	N.		22½
13. 23	13. 23½	N.	S.W.		135
14. 10	14. 11	S.W.	W.S.W.	22½	
14. 17	14. 18	W.S.W.	S.W.		22½
14. 22	14. 23	S.W.	S.S.W.		22½
15. 3	15. 3½	S.S.W.	S.W.	22½	
15. 10	15. 11	S.W.	W.S.W.	22½	
15. 22	16. 0	W.S.W.	S.W.		22½
16. 9½	16. 10½	S.W.	E.N.E.	202½	
16. 13½	16. 14½	E.N.E.	N.		67½
16. 15	16. 15½	N.	N.E.	45	
16. 17	16. 19½	N.E.	S.	135	
16. 21	16. 21¼	S.	S.E.		45
17. 11	17. 11¼	S.E.	N.N.W.		157½
17. 14	17. 14½	N.N.W.	N.N.E.	45	
17. 17	17. 17¼	N.N.E.	E.S.E.	90	
17. 18	17. 19	E.S.E.	S.S.E.	45	
17. 20	17. 22	S.S.E.	W.S.W.	90	
18. 1	18. 2½	W.S.W.	S.		67½

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
March—cont.					
d h	d h				
18. 13	18. 13½	S.	S.W.		315
18. 22	18. 23	S.W.	W.S.W.	22½	
20. 8	20. 10	W.S.W.	N.W.	67½	
20. 15¾	20. 16	N.W.	N.E.	90	
20. 18	20. 18½	N.E.	E.	45	
20. 22	20. 23	E.	S.E.	45	
21. 6	21. 7	S.E.	S.	45	
21. 9	21. 10	S.	S.W.	45	
21. 12	21. 13	S.W.	W.S.W.	22½	
21. 16	21. 16½	W.S.W.	N.W.	67½	
21. 20½	21. 21	N.W.	W.		45
22. 1	22. 2	W.	S.W.		45
22. 6	22. 7	S.W.	W.S.W.	22½	
22. 9	22. 11	W.S.W.	N.W.	67½	
22. 17	22. 18	N.W.	N.N.W.	22½	
22. 19	22. 19¼	N.N.W.	N.N.E.	45	
22. 21¾	22. 22½	N.N.E.	E.	67½	
22. 23	23. 0	E.	S.W.	135	
23. 4½	23. 5	S.W.	S.		45
23. 7	23. 8	S.	S.S.W.	22½	
24. 12	24. 14	S.S.W.	W.S.W.	45	
24. 19	24. 22	W.S.W.	S.W.		22½
25. 2½	25. 3½	S.W.	S.S.W.		22½
25. 7	25. 8	S.S.W.	S.W.	22½	
25. 11	25. 12	S.W.	S.S.W.		22½
25. 20	25. 22	S.S.W.	S.W.	22½	
26. 0	26. 1	S.W.	S.S.W.		22½
26. 3	26. 5	S.S.W.	S.W.	22½	
26. 8	26. 10	S.W.	W.N.W.	67½	
26. 11	26. 11½	W.N.W.	N.W.	22½	
26. 14	26. 15	N.W.	W.		45
26. 16	26. 16¼	W.	N.W.	45	
26. 17	26. 20	N.W.	S.W.		90
27. 0	27. 3	S.W.	S.		45
27. 5	27. 6	S.	S.S.E.		22½
27. 7	27. 8	S.S.E.	E.S.E.		45
27. 9	27. 11	E.S.E.	S.S.W.	90	
27. 22½	27. 23½	S.S.W.	S.W.	22½	
28. 1½	28. 3	S.W.	S.S.W.		22½
28. 12	28. 13	S.S.W.	S.W.	22½	
29. 11	29. 12½	S.W.	W.S.W.	22½	
30. 0	30. 3	W.S.W.	S.W.		22½
30. 11½	30. 12	S.W.	W.S.W.	22½	
30. 15	30. 15½	W.S.W.	S.W.		22½
30. 21	30. 22½	S.W.	W.S.W.	22½	
31. 1	31. 3	W.S.W.	N.W.	67½	
31. 8	31. 10	N.W.	N.N.W.	22½	
31. 11½	31. 12	N.N.W.	N.W.		22½
31. 13	31. 14	N.W.	W.S.W.		67½
31. 18	31. 19½	W.S.W.	S.S.W.		45
31. 22	31. 23	S.S.W.	S.W.	22½	
			Sums	3037½	2317½

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

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
April.					
d h	d h				
1. 1½	1. 1¾	S.W.	S.S.E.		67½
1. 6	1. 6½	S.S.E.	N.E.		112½
1. 10½	1. 11	N.E.	E.	45	
1. 13½	1. 14	E.	N.E.		45
1. 15	1. 15½	N.E.	E.	45	
1. 19	1. 20½	E.	N.N.E.		67½
2. 0	2. 1	N.N.E.	N.		22½
2. 7	2. 9	N.	N.N.E.	22½	
3. 9½	3. 10½	N.N.E.	N.		22½
3. 16½	3. 17	N.	S.S.W.	202½	
3. 18	3. 19	S.S.W.	S.W.	22½	
3. 22	4. 0½	S.W.	N.	135	
4. 2½	4. 3½	N.	N.N.E.	22½	
4. 6	4. 8	N.N.E.	N.E.	22½	
4. 12	4. 13	N.E.	N.		45
4. 19	4. 19¼	N.	N.E.	45	
4. 21	4. 22	N.E.	S.E.	90	
5. 0½	5. 1	S.E.	S.S.E.	22½	
5. 3½	5. 5	S.S.E.	S.S.W.	45	
5. 6½	5. 8	S.S.W.	S.W.	22½	
5. 18	5. 19	S.W.	S.S.W.		22½
6. 2½	6. 3	S.S.W.	S.W.	22½	
6. 23	7. 0	S.W.	W.S.W.	22½	
7. 7	7. 8	W.S.W.	W.	22½	
7. 9½	7. 10	W.	N.	90	
7. 14½	7. 15	N.	N.N.E.	22½	
7. 16	7. 16½	N.N.E.	N.		22½
7. 18	7. 21	N.	S.	180	
8. 4	8. 6	S.	W.S.W.	67½	
8. 13	8. 14	W.S.W.	S.W.		22½
8. 15	8. 15½	S.W.	S.S.W.		22½
9. 1	9. 3	S.S.W.	S.W.	22½	
9. 16	9. 16½	S.W.	S.S.W.		22½
10. 7	10. 8	S.S.W.	S.W.	22½	
10. 13	10. 15	S.W.	W.S.W.	22½	
10. 19	10. 19½	W.S.W.	W.	22½	
10. 22	11. 0½	W.	W.S.W.		22½
11. 2	11. 3	W.S.W.	S.W.		22½
11. 9½	11. 10	S.W.	N.W.	90	
11. 15½	11. 16	N.W.	N.N.W.	22½	
11. 19	11. 21	N.N.W.	N.	22½	
12. 8	12. 10	N.	E.N.E.	67½	
12. 12	12. 13½	E.N.E.	S.E.	67½	
12. 20	12. 20½	S.E.	S.	45	
13. 1	13. 2½	S.	S.S.W.	22½	
13. 4	13. 5	S.S.W.	S.S.E.		45
13. 6½	13. 6¾	S.S.E.	E.S.E.		45
13. 7½	13. 8	E.S.E.	E.		22½
13. 18	13. 20	E.	E.N.E.		22½
13. 23	14. 0	E.N.E.	N.E.		22½
14. 7	14. 8	N.E.	E.N.E.	22½	
14. 22	14. 23	E.N.E.	N.E.		22½
15. 1	15. 4	N.E.	N.N.E.		22½
15. 7	15. 8	N.N.E.	N.E.	22½	
15. 13½	15. 14	N.E.	E.N.E.	22½	
15. 16	15. 19	E.N.E.	N.E.		22½
16. 10½	16. 11½	N.E.	E.N.E.	22½	
16. 13½	16. 14	E.N.E.	E.	22½	
17. 1½	17. 2	E.	N.N.E.		67½

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
April—*cont.*					
d h	d h				
17. 10½	17. 11	N.N.E.	N.E.	22½	
17. 14	17. 15	N.E.	E.	45	
17. 17½	17. 18	E.	S.E.	45	
18. 3½	18. 4	S.E.	S.S.E.	22½	
18. 7	18. 10	S.S.E.	S.W.	67½	
18. 19	18. 19½	S.W.	S.S.W.		22½
18. 22½	19. 0	S.S.W.	S.W.	22½	
19. 2	19. 3	S.W.	W.S.W.	22½	
19. 23½	20. 0	W.S.W.	S.W.		22½
20. 5½	20. 6	S.W.	S.S.W.		22½
20. 19	20. 21	S.S.W.	S.S.E.		45
21. 0½	21. 1	S.S.E.	S.S.W.	45	
21. 15½	21. 16	S.S.W.	S.W.	22½	
22. 5½	22. 6	S.W.	S.S.W.		22½
22. 14½	22. 16	S.S.W.	S.		22½
23. 0	23. 2	S.	S.S.W.	22½	
23. 5	23. 6	S.S.W.	S.W.	22½	
23. 17	23. 20	S.W.	S.S.W.		22½
24. 1	24. 2	S.S.W.	S.W.	22½	
24. 5½	24. 6	S.W.	N.E.		180
24. 7	24. 8½	N.E.	S.S.E.	112½	
24. 11½	24. 12	S.S.E.	S.	22½	
24. 23	24. 23½	S.	S.S.E.		22½
25. 2½	25. 3½	S.S.E.	E.N.E.		90
25. 9	25. 10½	E.N.E.	S.	112½	
25. 13	25. 14	S.	S.S.W.	22½	
25. 15	25. 16	S.S.W.	S.W.	22½	
25. 18	25. 18½	S.W.	S.S.W.		22½
25. 21	25. 22	S.S.W.	S.		22½
26. 6	26. 7	S.	S.S.W.	22½	
26. 8½	26. 9½	S.S.W.	S.W.	22½	
26. 16	26. 17	S.W.	S.S.W.		22½
26. 19	26. 20	S.S.W.	S.W.	22½	
27. 5	27. 7	S.W.	W.S.W.	22½	
27. 14½	27. 16	W.S.W.	N.N.W.	90	
27. 19	27. 19½	N.N.W.	N.	22½	
28. 9½	28. 10	N.	N.N.E.	22½	
28. 23½	29. 0½	N.N.E.	S.S.E.	135	
29. 2½	29. 2¾	S.S.E.	S.W.	67½	
29. 8½	29. 10	S.W.	S.E.		90
29. 13½	29. 14	S.E.	N.E.		90
29. 15	29. 15½	N.E.	W.		135
29. 16	29. 17	W.	W.S.W.		22½
29. 20½	29. 22	W.S.W.	S.S.W.		45
30. 20	30. 23½	S.S.W.	S.E.		67½
			Sums	2812½	1822½

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
May.					
1. 6½	1. 9	S.E.	S.	45	
1. 13	1. 15	S.	S.W.	45	
1. 16	1. 18	S.W.	N.W.	90	
1. 22	2. 0	N.W.	S.W.		90
2. 6	2. 6½	S.W.	N.N.W.	112½	
2. 11½	2. 12	N.N.W.	N.	22½	

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
May—*cont.*					
d h	d h				
2. 16½	2. 17	N.	N.N.E.	22½	
2. 18½	2. 19½	N.N.E.	E.S.E.	90	
2. 21½	2. 22½	E.S.E.	S.	67½	
3. 0½	3. 1	S.	S.W.	45	
3. 6½	3. 7	S.W.	N.N.W.	112½	
3. 11½	3. 12	N.N.W.	N.	22½	
3. 19	3. 21	N.	N.N.E.	22½	
4. 9	4. 11	N.N.E.	E.N.E.	45	
4. 13	4. 14	E.N.E.	N.E.		22½
5. 0½	5. 1	N.E.	N.N.E.		22½
5. 3½	5. 4	N.N.E.	N.		22½
5. 6½	5. 7	N.	N.N.E.	22½	
5. 11½	5. 12	N.N.E.	N.		22½
5. 17½	5. 18½	N.	N.N.W.		22½
6. 6½	6. 10	N.N.W.	N.E.	67½	
7. 10½	7. 11	N.E.	E.N.E.	22½	
7. 15	7. 18	E.N.E.	N.E.		22½
7. 22	7. 23	N.E.	N.N.E.		22½
8. 3	8. 4	N.N.E.	N.E.	22½	
8. 12	8. 13	N.E.	E.N.E.	22½	
8. 16	8. 18	E.N.E.	E.	22½	
8. 21	8. 23	E.	E.N.E.		22½
9. 3¾	9. 4	E.N.E.	N.N.E.		45
9. 7½	9. 8	N.N.E.	N.E.	22½	
9. 12	9. 12½	N.E.	S.E.	90	
9. 14	9. 15	S.E.	E.S.E.		22½
9. 16½	9. 17	E.S.E.	S.S.W.	90	
9. 21	9. 22	S.S.W.	S.W.	22½	
10. 6	10. 8	S.W.	W.S.W.	22½	
10. 17½	10. 19	W.S.W.	S.	292½	
10. 20	10. 22	S.	S.W.	45	
11. 11	11. 12	S.W.	W.S.W.	22½	
11. 18	11. 19	W.S.W.	S.		67½
12. 0	12. 1	S.	E.		90
12. 2	12. 2½	E.	S.E.	45	
12. 22½	12. 23	S.E.	S.	45	
13. 4	13. 4½	S.	S.S.E.		22½
13. 9½	13. 10	S.S.E.	W.S.W.	90	
13. 15	13. 17	W.S.W.	N.N.W.	90	
14. 6	14. 9	N.N.W.	N.	22½	
14. 13	14. 16	N.	N.W.		45
16. 1	16. 1½	N.W.	N.N.W.	22½	
17. 2	17. 3	N.N.W.	N.W.		22½
17. 14	17. 15	N.W.	W.N.W.		22½
17. 21	17. 22	W.N.W.	W.		22½
18. 1½	18. 2½	W.	W.S.W.		22½
18. 5½	18. 7	W.S.W.	N.	112½	
18. 13	18. 15	N.	N.N.W.		22½
20. 1	20. 2	N.N.W.	N.W.		22½
20. 8	20. 10	N.W.	N.N.W.	22½	
20. 15	20. 18	N.N.W.	N.N.E.	45	
20. 23	20. 23½	N.N.E.	N.N.W.		45
21. 0½	21. 1	N.N.W.	N.	22½	
21. 7	21. 8	N.	N.N.E.	22½	
21. 10	21. 11	N.N.E.	N.E.	22½	
21. 21	21. 22	N.E.	N.N.E.		22½
22. 3¾	22. 4	N.N.E.	N.N.W.		45
22. 5½	22. 6½	N.N.W.	N.	22½	
22. 17	22. 18	N.	N.N.W.		22½

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

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
May—cont.					
d h	d h				
23. 1	23. 2½	N.N.W.	S.W.	247½	
23. 4	23. 7½	S.W.	E.N.E.		157½
23. 11	23. 13½	E.N.E.	E.S.E.	45	
23. 15	23. 17	E.S.E.	E.N.E.		45
23. 18	23. 20	E.N.E.	N.E.		22½
24. 1	24. 10	N.E.	E.	45	
24. 13	24. 14	E.	E.N.E.		22½
25. 4	25. 6	E.N.E.	N.E.		22½
25. 15	25. 18	N.E.	E.N.E.	22½	
26. 10½	26. 11½	E.N.E.	S.S.W.	135	
26. 13½	26. 14½	S.S.W.	N.E.		157½
26. 16½	26. 17	N.E.	S.S.E.	112½	
26. 20	26. 23	S.S.E.	N.E.		112½
27. 4	27. 5	N.E.	N.N.E.		22½
27. 11	27. 12	N.N.E.	E.N.E.	45	
27. 16	27. 19	E.N.E.	E.	22½	
28. 2	28. 7	E.	E.S.E.	22½	
28. 9½	28. 10	E.S.E.	E.		22½
28. 12	28. 13	E.	E.S.E.	22½	
28. 21	28. 23	E.S.E.	E.		22½
29. 4	29. 9	E.	E.N.E.		22½
29. 12	29. 15	E.N.E.	E.	22½	
29. 18	29. 20	E.	E.N.E.		22½
29. 22	30. 0	E.N.E.	E.	22½	
30. 4	30. 7	E.	E.S.E.	22½	
30. 10	30. 13	E.S.E.	S.	67½	
30. 19½	30. 20	S.	S.S.E.		22½
30. 22	30. 23	S.S.E.	S.W.	67½	
31. 0½	31. 1	S.W.	S.		45
31. 2½	31. 3	S.	S.S.W.	22½	
31. 19	31. 20½	S.S.W.	S.S.E.		45
			Sums	3060	1597½
June.					
1. 0½	1. 1	S.S.E.	S.E.		22½
1. 6½	1. 9	S.E.	S.	45	
1. 11½	1. 12	S.	W.S.W.	67½	
1. 14	1. 16½	W.S.W.	S.S.W.		45
1. 17	1. 18	S.S.W.	S.W.	22½	
2. 10	2. 11	S.W.	S.S.W.		22½
2. 16	2. 19	S.S.W.	E.N.E.	225	
2. 22	2. 22½	E.N.E.	E.	22½	
3. 2	3. 2¼	E.	N.N.E.		67½
3. 6½	3. 8	N.N.E.	N.		22½
3. 11	3. 12	N.	N.N.W.		22½
3. 16	3. 17	N.N.W.	N.	22½	
4. 4	4. 4½	N.	N.N.E.	22½	
4. 7	4. 8	N.N.E.	N.		22½
4. 12	4. 13½	N.	N.E.	45	
4. 19½	4. 20	N.E.	N.N.E.		22½
4. 22	4. 23	N.N.E.	N.E.	22½	
5. 2	5. 3	N.E.	N.N.E.		22½
5. 5	5. 7	N.N.E.	N.E.	22½	
5. 13	5. 14	N.E.	E.N.E.	22½	
5. 15½	5. 20	E.N.E.	N.N.E.		45
June—cont.					
7. 11	7. 12	N.N.E.	N.E.	22½	
7. 21	7. 22	N.E.	N.N.E.		22½
8. 5	8. 6	N.N.E.	N.		22½
8. 7½	8. 8	N.	N.N.E.	22½	
8. 14	8. 15	N.N.E.	E.S.E.	90	
9. 6¾	9. 7	E.S.E.	N.		112½
9. 8½	9. 9	N.	N.E.	45	
9. 23½	10. 0	N.E.	E.S.E.	67½	
10. 2½	10. 3	E.S.E.	N.N.W.		135
10. 7	10. 9	N.N.W.	N.	22½	
10. 16½	10. 19	N.	N.E.	45	
10. 21½	10. 22	N.E.	N.N.W.		67½
11. 6	11. 9	N.N.W.	N.	22½	
11. 12	11. 18	N.	W.N.W.		67½
11. 19½	11. 21	W.N.W.	W.		22½
11. 23	12. 0	W.	N.N.W.	67½	
12. 1	12. 2	N.N.W.	N.W.		22½
12. 7	12. 7½	N.W.	N.N.W.	22½	
12. 13	12. 14	N.N.W.	N.	22½	
12. 17½	12. 18	N.	N.E.	45	
12. 19½	12. 20	N.E.	E.S.E.	67½	
12. 21	12. 22½	E.S.E.	S.	67½	
13. 0	13. 1	S.	W.S.W.	67½	
13. 4½	13. 5	W.S.W.	S.W.		22½
13. 6	13. 8	S.W.	N.W.	90	
13. 14	13. 16	N.W.	W.S.W.		67½
14. 10	14. 10¼	W.S.W.	N.	112½	
14. 12	14. 12½	N.	N.N.E.	22½	
14. 17	14. 18	N.N.E.	N.E.	22½	
14. 22	14. 23	N.E.	N.N.E.		22½
15. 12	15. 12½	N.N.E.	N.		22½
15. 16½	15. 17	N.	N.E.	45	
15. 19	16. 1	N.E.	W.S.W.	202½	
16. 5	16. 7	W.S.W.	W.	22½	
16. 8½	16. 9	W.	N.N.W.	67½	
16. 12	16. 12¼	N.N.W.	S.S.W.	225	
16. 21½	16. 22½	S.S.W.	S.W.	22½	
17. 4	17. 6	S.W.	N.N.W.	112½	
17. 8½	17. 9	N.N.W.	N.	22½	
17. 13	17. 13½	N.	E.		270
17. 21	18. 2	E.	S.S.E.	67½	
18. 3½	18. 4	S.S.E.	N.E.		112½
18. 7	18. 8	N.E.	N.		45
18. 10	18. 13	N.	W.S.W.		112½
18. 18	18. 18½	W.S.W.	E.S.E.	225	
18. 21½	18. 23	E.S.E.	E.		22½
19. 0½	19. 2	E.	N.N.W.		112½
19. 6½	19. 8	N.N.W.	N.	22½	
19. 13	19. 14	N.	N.N.W.		22½
19. 17	19. 19	N.N.W.	E.	112½	
20. 0	20. 1½	E.	S.W.	135	
20. 7½	20. 9	S.W.	N.W.	90	
20. 11	20. 11½	N.W.	W.		45
20. 19	20. 22	W.	S.W.		45
21. 16	21. 17	S.W.	S.S.W.		22½
22. 1	22. 2	S.S.W.	S.S.E.		45
22. 3½	22. 6	S.S.E.	S.S.W.	45	
22. 7	22. 8	S.S.W.	S.W.	22½	
23. 5	23. 6	S.W.	W.S.W.	22½	
June—cont.					
23. 10	23. 13	W.S.W.	N.N.W.	90	
24. 5½	24. 6	N.N.W.	N.N.E.	45	
24. 11	24. 12	N.N.E.	W.N.W.		90
24. 13	24. 14	W.N.W.	N.N.E.	90	
24. 15	24. 19½	N.N.E.	E.	67½	
25. 0	25. 2	E.	N.E.		45
25. 6	25. 9	N.E.	N.		45
25. 17	25. 17½	N.	N.E.	45	
25. 19	25. 19½	N.E.	E.	45	
25. 21	26. 1	E.	W.S.W.	157½	
26. 6	26. 7	W.S.W.	S.		67½
26. 10½	26. 12	S.	S.W.	45	
26. 23½	27. 2	S.W.	E.S.E.	247½	
27. 3	27. 3½	E.S.E.	S.S.W.	90	
27. 5	27. 6	S.S.W.	W.S.W.	45	
27. 17½	27. 18	W.S.W.	W.	22½	
28. 0	28. 1	W.	S.W.		45
29. 3	29. 4	S.W.	S.		45
29. 6	29. 8	S.	S.W.	45	
30. 11½	30. 12	S.W.	S.S.W.		22½
30. 19	30. 23	S.S.W.	S.S.E.		45
			Sums	3982½	2182½
July.					
1. 0½	1. 1½	S.S.E.	S.	22½	
1. 12	1. 13	S.	S.S.W.	22½	
1. 19½	1. 21	S.S.W.	S.S.E.		45
2. 0	2. 1	S.S.E.	S.S.W.	45	
2. 6	2. 8	S.S.W.	S.W.	22½	
3. 5	3. 6	S.W.	W.S.W.	22½	
3. 12	3. 13	W.S.W.	W.	22½	
3. 20	3. 23	W.	N.W.	45	
4. 1	4. 3	N.W.	N.N.W.	22½	
4. 6	4. 7	N.N.W.	N.	22½	
4. 16	4. 17	N.	W.S.W.	247½	
4. 21	4. 23	W.S.W.	N.N.W.	90	
5. 3½	5. 4	N.N.W.	N.	22½	
5. 12½	5. 13	N.	N.N.E.	22½	
5. 17	5. 19	N.N.E.	S.E.	112½	
5. 21	6. 2	S.E.	S.W.	90	
6. 7	6. 7½	S.W.	N.N.W.	112½	
6. 11	6. 11½	N.N.W.	N.	22½	
6. 13½	6. 15	N.	S.E.		225
7. 3	7. 3¼	S.E.	S.S.E.	22½	
7. 6½	7. 7	S.S.E.	S.W.	67½	
7. 16½	7. 17	S.W.	S.S.W.		22½
7. 19	7. 21	S.S.W.	S.		22½
7. 23	8. 1	S.	S.S.W.	22½	
8. 22	9. 0	S.S.W.	S.W.	22½	
9. 6	9. 8	S.W.	W.S.W.	22½	
9. 10	9. 12	W.S.W.	S.W.		22½
10. 4	10. 8	S.W.	W.	45	
10. 11	10. 12	W.	W.S.W.		22½
11. 2	11. 5	W.S.W.	S.W.		22½
12. 2	12. 4	S.W.	W.S.W.	22½	

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

July—*cont.*

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
d h	d h			°	°
12. 6	12. 9	W.S.W.	N.W.	67½	
12.22	13. 1	N.W.	W.		45
13.12	13.13	W.	W.S.W.		22½
13.18½	13.19½	W.S.W.	S.W.		22½
13.22	13.23	S.W.	W.S.W.	22½	
14. 4	14. 6	W.S.W.	W.N.W.	45	
14.12	14.12½	W.N.W.	W.		22½
14.15	14.16	W.	W.N.W.	22½	
14.18	14.19	W.N.W.	W.		22½
15.22	16. 3	W.	S.S.W.		67½
16. 8	16.10	S.S.W.	S.W.	22½	
16.18	16.20	S.W.	S.S.W.		22½
16.23	17. 0	S.S.W.	S.		22½
17.10	17.12	S.	S.S.E.		22½
17.18	17.22	S.S.E.	S.W.	67½	
18. 2	18. 3½	S.W.	S.S.W.		22½
18.16	18.16½	S.S.W.	S.		22½
18.19	18.22	S.	E.		90
19. 0	19. 1	E.	S.S.E.	67½	
19. 2½	19. 5	S.S.E.	S.W.	67½	
19.17½	19.20	S.W.	S.S.W.		22½
20. 1	20. 3	S.S.W.	S.S.E.		45
20. 8	20.11	S.S.E.	S.S.W.	45	
20.15	20.16½	S.S.W.	W.S.W.	45	
20.18	20.20½	W.S.W.	S.S.W.		45
21. 1	21. 3	S.S.W.	S.		22½
21. 7	21. 8	S.	S.S.E.		22½
21.10	21.10½	S.S.E.	S.W.	67½	
22. 3	22. 5	S.W.	W.S.W.	22½	
22.12½	22.13	W.S.W.	W.N.W.	45	
22.18	22.18½	W.N.W.	W.S.W.		45
22.23	23. 1	W.S.W.	S.W.		22½
23. 6	23. 8	S.W.	W.S.W.	22½	
23.17	23.20	W.S.W.	S.S.W.		45
23.23	24. 1	S.S.W.	S.E.		67½
24. 2½	24. 3	S.E.	S.S.E.	22½	
24. 4½	24. 8	S.S.E.	S.W.	67½	
25.11	25.12	S.W.	S.S.W.		22½
25.18	25.19	S.S.W.	S.W.	22½	
25.23	26. 0	S.W.	S.S.W.		22½
26. 2	26. 3	S.S.W.	S.W.	22½	
26. 4½	26. 5½	S.W.	S.E.		90
26.13	26.17	S.E.	S.S.W.	67½	
27.14	27.15	S.S.W.	S.W.	22½	
27.19	27.20	S.W.	S.S.W.		22½
28. 1	28. 3	S.S.W.	N.N.E.		180
28.13	28.16	N.N.E.	N.N.W.		45
29. 2	29. 4	N.N.W.	S.S.W.		135
29. 6	29. 7½	S.S.W.	N.N.W.	135	
29.13	29.14	N.N.W.	W.N.W.		45
29.18½	29.20	W.N.W.	N.N.W.	45	
29.22	29.22½	N.N.W.	W.S.W.		90
30. 1½	30. 2	W.S.W.	N.	112½	
30. 9	30. 9½	N.	S.E.		225
30.11	30.11¼	S.E.	W.	135	
30.12	30.13	W.	S.	270	
30.21	31. 0	S.	N.N.E.		157½
			Sums	2745	2160

August.

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
d h	d h			°	°
1. 6	1. 7½	N.N.E.	N.E.	22½	
1. 9½	1.10	N.E.	E.S.E.	67½	
1.17	1.18	E.S.E.	S.S.E.	45	
1.21½	1.22	S.S.E.	S.S.W.	45	
2. 0¼	2. 0½	S.S.W.	S.		22½
2.14	2.16	S.	S.W.	45	
3. 0	3. 0½	S.W.	S.S.W.		22½
3.19	3.20¼	S.S.W.	S.		22½
4. 0	4. 2	S.	W.S.W.	67½	
4.11	4.12	W.S.W.	S.W.		22½
4.18	4.18½	S.W.	W.S.W.	22½	
5. 1	5. 4	W.S.W.	S.W.		22½
5.14	5.17	S.W.	S.		45
5.18	5.19	S.	S.S.W.	22½	
6. 2	6. 6	S.S.W.	W.S.W.	45	
6.15	6.16½	W.S.W.	S.W.		22½
8.15	8.16	S.W.	S.S.W.		22½
8.21½	8.22¼	S.S.W.	E.S.E.		90
9. 0¾	9. 5	E.S.E.	S.W.	112½	
9.19¾	9.20¼	S.W.	S.S.W.		22½
10.11	10.11½	S.S.W.	S.		22½
10.15¾	10.18	S.	S.E.		45
10.21¾	11. 1	S.E.	S.S.W.	67½	
12. 9½	12.11½	S.S.W.	S.		22½
13. 2	13. 8	S.	E.S.E.		67½
13.13½	13.14¾	E.S.E.	W.	157½	
13.17	14. 0	W.	S.S.W.		67½
14. 6	14.10½	S.S.W.	W.S.W.	45	
14.19½	14.20	W.S.W.	W.	22½	
14.23½	15. 0¼	W.	W.S.W.		22½
15. 4	15. 5	W.S.W	S.W.		22½
15.10	15.10¼	S.W.	N.W.	90	
15.13	15.16	N.W.	N.N.W.	22½	
15.20	15.20¾	N.N.W	S.	202½	
16. 0	16. 1	S.	W.S.W.	67½	
16. 4¾	16. 5	W.S.W.	S.E.		112½
16. 7	16. 8	S.E.	S.	45	
16.13	16.13½	S.	S.E.		45
17. 7½	17. 7¾	S.E.	N.E.		90
17. 9	17. 9¼	N.E.	S.E.	90	
17.17¾	17.18	S.E.	E.S.E.		22½
18. 9	18.10	E.S.E.	S.E.	22½	
19. 5¾	19. 7½	S.E.	S.S.W.	67½	
20. 2	20. 3	S.S.W.	S.W.	22½	
20. 7	20.12	S.W.	W.S.W.	22½	
20.19	20.20	W.S.W.	S.W.		22½
21.11¼	21.12	S.W.	S.S.W.		22½
21.18¾	21.19	S.S.W.	S.S.E.		45
21.23¼	22. 0	S.S.E.	E.		67½
22. 6½	22. 8	E.	S.S.W.	112½	
22.12½	22.13	S.S.W.	S.		22½
22.17	22.19	S.	S.S.W.	22½	
24. 3	24. 4	S.S.W.	S.W.	22½	
24. 7½	24. 8	S.W.	W.S.W.	22½	
24.11¾	24.12	W.S.W.	W.	22½	
24.14¾	24.15	W.	W.N.W.	22½	
24.21	24.21½	W.N.W.	N.W.	22½	
25. 4½	25. 5	N.W.	S.W.		90
25. 8	25. 8¼	S.W.	N.W.	90	

Aug.—*cont.*

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
d h	d h			°	°
25. 9½	25.11½	N.W.	W.S.W.		67½
25.17	25.19	W.S.W.	S.S.W.		45
26. 9	26.12	S.S.W.	S.W.	22½	
27.15	27.16½	S.W.	W.S.W.	22½	
27.21	27.22	W.S.W.	S.W.		22½
30. 6¾	30. 7½	S.W.	W.S.W.	22½	
30.14	30.15	W.S.W.	W.	22½	
30.17½	30.18¾	W.	W.S.W.		22½
31.10	31.10¼	W.S.W.	W.	22½	
31.18½	31.20	W.	S.W.		45
			Sums	1890	1327½

September.

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
1. 1	1. 2	S.W.	S.S.W.		22½
1.16	1.20	S.S.W.	E.S.E.		90
2. 6½	2.10½	E.S.E.	S.S.W.	90	
2.14	2.15	S.S.W.	S.W.	22½	
2.17	2.17½	S.W.	W.S.W.	22½	
2.19½	2.20¾	W.S.W.	S.S.W.		45
2.23	2.23¼	S.S.W.	S.		22½
3. 4	3. 5½	S.	S.W.	45	
3. 7¾	3. 8	S.W.	N.	135	
3. 9	3. 9¼	N.	S.W.		135
3.11¾	3.12½	S.W.	E.S.E.		112½
3.20¾	3.21½	E.S.E.	S.S.W.	90	
4. 0	4. 4	S.S.W.	N.W.	112½	
4. 8¼	4. 8½	N.W.	S.W.		90
4.15	4.15¼	S.W.	W.S.W.	22½	
4.19¼	4.20	W.S.W.	S.W.		22½
4.21¼	4.21½	S.W.	W.	45	
4.22½	4.23	W.	S.S.W.		67½
5. 2¼	5. 3	S.S.W.	S.		22½
5. 7	5. 7½	S.	S.S.W.	22½	
6. 4	6. 4¼	S.S.W.	S.W.	22½	
6. 7¾	6. 8¼	S.W.	S.		45
6.12¾	6.13	S.	S.S.E.		22½
6.17¼	6.18½	S.S.E.	E.S.E.		45
7. 3¾	7. 4½	E.S.E.	W.S.W.	135	
7. 5¾	7. 6½	W.S.W.	S.S.E.		90
7. 8	7. 9½	S.S.E.	E.S.E.		45
7.10¼	7.10½	E.S.E.	W.S.W.		225
7.15¾	7.16½	W.S.W.	N.W.	67½	
7.19	7.20	N W.	N.N.W.	22½	
7.22	7.23¾	N.N.W.	N.N.E.	45	
8. 2¼	8. 2¾	N.N.E.	N.E.	22½	
8.12¼	8.12½	N.E.	E.	45	
8.16	8.16½	E.	E.S.E.	22½	
9.10¾	9.11	E.S.E.	S.E.	22½	
9.13	9.14	S.E.	E.		45
9.22	10. 0	E.	S.S.E.	67½	
10. 3¼	10. 3½	S.S.E.	S.S.W.	45	
10. 5	10. 6½	S.S.W.	W.S.W.	45	

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

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
Sept.—*cont.*					
d h	d h				
10. 11¼	10. 12	W.S.W.	S.W.		22½
11. 8½	11. 9	S.W.	W.S.W.	22½	
12. 8	12. 9½	W.S.W.	W.	22½	
13. 7	13. 7¼	W.	N.N.W.	67½	
13. 18	13. 19	N.N.W.	S.W.		112½
13. 20½	13. 23	S.W.	N.	135	
14. 8	14. 8¼	N.	E.	90	
14. 9¼	14. 9½	E.	N.E.		45
14. 18½	14. 18¾	N.E.	S.E.	90	
14. 20	14. 21¼	S.E.	S.S.W.	67½	
15. 0	15. 0¼	S.S.W.	S.S.E.		45
15. 2¾	15. 3	S.S.E.	S.	22½	
15. 5	15. 5½	S.	S.S.W.	22½	
15. 8	15. 8¼	S.S.W.	S.W.	22½	
15. 11¼	15. 11½	S.W.	N.E.	180	
15. 12½	15. 12¾	N.E.	N.		45
15. 14¾	15. 15	N.	N.N.E.	22½	
15. 16¾	15. 17	N.N.E.	E.	67½	
15. 19	15. 21	E.	S.S.E.	67½	
16. 0½	16. 1	S.S.E.	S.S.W.	45	
16. 9	16. 9½	S.S.W.	S.W.	22½	
16. 14	16. 14¾	S.W.	W.S.W.	22½	
16. 17¼	16. 17¾	W.S.W.	S.W.		22½
16. 19¾	16. 20¼	S.W.	S.		45
16. 23	16. 23¾	S.	S.W.	45	
19. 11	19. 11¼	S.W.	N.E.	180	
19. 14¼	19. 14½	N.E.	N.N.W.		67½
19. 18	19. 19	N.N.W.	N.N.E.	45	
20. 9	20. 12	N.N.E.	E.N.E.	45	
20. 13½	20. 14½	E.N.E.	E.	22½	
21. 5	21. 5¼	E.	N.E.		45
21. 9¼	21. 9¾	N.E.	E.	45	
21. 12	21. 12¼	E.	E.N.E.		22½
21. 23¾	22. 0½	E.N.E.	N.E.		22½
22. 2½	22. 3	N.E.	E.N.E.	22½	
22. 11¼	22. 12	E.N.E.	E.	22½	
22. 21½	22. 22	E.	E.N.E.		22½
23. 1¾	23. 2	E.N.E.	E.	22½	
23. 9½	23. 9¾	E.	N.E.		45
23. 12¾	23. 13	N.E.	E.S.E.	67½	
24. 0½	24. 0¾	E.S.E.	E.		22½
24. 7¾	24. 8	E.	E.S.E.	22½	
24. 9¼	24. 9½	E.S.E.	N.E.		67½
24. 12	24. 12½	N.E.	S.S.W.	157½	
24. 15¼	24. 15¾	S.S.W.	E.S.E.		90
24. 23¼	24. 23½	E.S.E.	S.	67½	
25. 0	25. 0¼	S.	N.	180	
25. 1	25. 2½	N.	E.S.E.	112½	
25. 5¼	25. 6¼	E.S.E.	N.		112½
25. 8¼	25. 8½	N.	S.S.W.	202½	
25. 12	25. 12¼	S.S.W.	S.W.	22½	
25. 14	25. 14¼	S.W.	W.S.W.	22½	
25. 17¼	25. 18½	W.S.W.	S.S.W.		45
25. 20	25. 20½	S.S.W.	W.S.W.	45	
26. 3¼	26. 3½	W.S.W.	S.E.	247½	
26. 9	26. 11	S.E.	E.		45
27. 0½	27. 1	E.	E.N.E.		22½
27. 12¾	27. 13¼	E.N.E.	E.	22½	
28. 23	29. 0¼	E.	N.E.		45

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
Sept.—*cont.*					
d h	d h				
29. 9½	29. 10	N.E.	E.N.E.	22½	
30. 2¼	30. 3	E.N.E.	N.N.E.		45
30. 8	30. 8¼	N.N.E.	N.E.	22½	
30. 12	30. 12¼	N.E.	E.	45	
			Sums	3870	2205
October.					
1. 3½	1. 3¾	E.	E.S.E.	22½	
1. 6¼	1. 6½	E.S.E.	S.E.	22½	
1. 8½	1. 9	S.E.	S.S.E.	22½	
1. 12	1. 12¼	S.S.E.	S.	22½	
1. 23	1. 23¼	S.	S.S.E.		22½
2. 4	2. 6½	S.S.E.	W.S.W.	90	
2. 15½	2. 17	W.S.W.	S.W.		22½
3. 4½	3. 6	S.W.	S.S.W.		22½
3. 8½	3. 9¼	S.S.W.	S.S.E.		45
3. 10¾	3. 13¾	S.S.E.	W.S.W.	90	
3. 18½	3. 19¼	W.S.W.	S.W.		22½
4. 6	4. 7	S.W.	W.S.W.	22½	
4. 13½	4. 14	W.S.W.	W.N.W.	45	
4. 20¼	4. 20½	W.N.W.	W.S.W.		45
4. 23	4. 23½	W.S.W.	S.W.		22½
5. 1	5. 2¾	S.W.	S.		45
5. 7¼	5. 11	S	S.W.	45	
6. 7¼	6. 8	S.W.	W.	45	
6. 9¼	6. 11	W.	S.S.E.		112½
6. 13¼	6. 16½	S.S.E.	N.N.W.	180	
6. 20¼	6. 21¾	N.N.W.	W.S.W.		90
7. 3½	7. 4	W.S.W.	S.W.		22½
7. 7	7. 8	S.W.	W.S.W.	22½	
7. 13¼	7. 14	W.S.W.	S.W.		22½
7. 17¼	7. 18	S.W.	S.S.E.		67½
7. 22	8. 0	S.S.E.	E.S.E.		45
8. 14	8. 17	E.S.E.	N.N.E.		90
9. 1¾	9. 2¼	N.N.E.	S.S.E.	135	
9. 7¼	9. 7½	S.S.E.	N.N.W.	180	
9. 14	9. 15½	N.N.W.	W.		67½
10. 7½	10. 9½	W.	N.W.	45	
10. 15½	10. 16¼	N.W.	N.N.W.	22½	
10. 19¼	10. 19¾	N.N.W.	N.W.		22½
10. 22½	10. 22¾	N.W.	S.W.		90
11. 8	11. 12	S.W.	W.N.W.	67½	
11. 17½	11. 19½	W.N.W.	S.W.		67½
12. 11	12. 11¾	S.W.	W.S.W.	22½	
13. 20¾	13. 21¼	W.S.W.	S.W.		22½
14. 5	14. 5¾	S.W.	S.S.W.		22½
14. 9¾	14. 10½	S.S.W.	S.W.	22½	
14. 17½	14. 18	S.W.	N.E.	180	
14. 18¾	14. 19¼	N.E.	E.S.E.	67½	
14. 21	14. 21¼	E.S.E.	E.		22½
15. 2½	15. 3¼	E.	S.E.	45	
15. 12¼	15. 13¾	S.E.	S.W.	90	
15. 21¼	15. 22	S.W.	W.S.W.	22½	
16. 4	16. 4¼	W.S.W.	N.	112½	
17. 10	17. 10½	N.	N.N.E.	22½	
17. 17¾	17. 18½	N.N.E.	N.E.	22½	

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
Oct.—*cont.*					
d h	d h				
18. 9¼	18. 9½	N.E.	S.	135	
18. 10½	18. 11¼	S.	E.		90
19. 10¾	19. 11	E.	E.S.E.	22½	
20. 2¼	20. 3¼	E.S.E.	S.S.W.	90	
20. 6¼	20. 6¾	S.S.W.	W.S.W.		315
20. 8¾	20. 10	W.S.W.	N.E.	157½	
20. 11	20. 11½	N.E.	E.S.E.	67½	
20. 13¾	20. 14	E.S.E.	S.S.E.	45	
20. 15	20. 15¼	S.S.E.	S.S.W.	45	
20. 18	20. 18½	S.S.W.	S.W.	22½	
20. 23¾	21. 0¼	S.W.	N.	135	
21. 1	21. 1½	N.	W.S.W.	247½	
21. 3¾	21. 4¼	W.S.W.	S.S.W.		45
21. 9	21. 10¼	S.S.W.	W.S.W.	45	
21. 12	21. 12¼	W.S.W.	S.W.		22½
22. 1	22. 2¼	S.W.	N.N.E.	157½	
22. 23	22. 23¾	N.N.E.	N.		22½
23. 12	23. 12¼	N.	N.N.E.	22½	
23. 22	24. 0	N.N.E.	N.N.W.		45
24. 4	24. 4¾	N.N.W.	W.S.W.		90
24. 16	24. 16½	W.S.W.	S.W.		22½
24. 22	24. 23½	S.W.	W.S.W.	22½	
25. 17¼	25. 18	W.S.W.	S.W.		22½
26. 7¾	26. 9	S.W.	N.	135	
26. 22	26. 22¼	N.	N.N.W.		22½
27. 1¾	27. 4	N.N.W.	S.W.		112½
27. 9	27. 9¼	S.W.	W.S.W.	22½	
27. 15¼	27. 16¼	W.S.W.	S.W.	337½	
28. 14	28. 15	S.W.	S.S.W.		22½
28. 17	28. 17¼	S.S.W.	S.		22½
29. 1	29. 2	S.	N.W.		225
29. 12	29. 12¾	N.W.	N.N.W.	22½	
30. 3	30. 5½	N.N.W.	W.S.W.		90
30. 17¼	30. 17¾	W.S.W.	S.W.		22½
30. 23	31. 0	S.W.	S.S.W.		22½
31. 16½	31. 18¾	S.S.W.	S.E.		67½
			Sums	3420	2295
November.					
1. 2	1. 2¼	S.E.	E.		45
1. 9¼	1. 9½	E.	E.S.E.	22½	
1. 19¼	1. 19¾	E.S.E.	E.		22½
2. 0¾	2. 1	E.	E.N.E.		22½
2. 7¼	2. 8½	E.N.E.	E.S.E.	45	
3. 10	3. 11¼	E.S.E.	S.E.	22½	
3. 21½	3. 22¼	S.E.	S.	45	
4. 10	4. 10¼	S.	S.S.E.		22½
4. 17½	4. 19	S.S.E.	S.W.	67½	
4. 21½	4. 22	S.W.	W.S.W.	22½	
5. 1¾	5. 3¼	W.S.W.	E.N.E.		180
5. 9	5. 10	E.N.E.	S.	112½	
5. 11¼	5. 11½	S.	S.W.	45	
5. 15½	5. 16	S.W.	S.S.W.		22½
5. 21	5. 21½	S.S.W.	S.W.	22½	
7. 11	7. 11½	S.W.	W.S.W.	22½	
7. 21¾	7. 22	W.S.W.	W.	22½	

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

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
Nov.—*cont.*				°	°
d h	d h				
8. 3	8 3¾	W.	W.S.W.		22½
8. 10¼	8. 10¾	W.S.W.	E.N.E.	180	
8. 12¾	8. 13	E.N.E.	E.S.E.	45	
8. 16½	8. 18¼	E.S.E.	S.S.E.	45	
8. 20½	8. 20¾	S.S.E.	S.S.W.	45	
9. 0	9. 1	S.S.W.	W.S.W.	45	
9. 7	9. 7¼	W.S.W.	W.	22½	
9. 9½	9. 10	W.	N.W.	45	
9. 13	9. 13¼	N.W.	W.		45
9. 16¼	9. 17½	W.	S.W.		45
9. 21	9. 22	S.W.	S.S.W.		22½
11. 1½	11. 2¼	S.S.W.	S.W.	22½	
11. 5	11. 5½	S.W.	W.S.W.	22½	
11. 13½	11. 14¼	W.S.W.	S.W.		22½
11. 23½	12. 0	S.W.	W.S.W.	22½	
12. 3¾	12. 4¼	W.S.W.	S.W.		22½
12. 10¼	12. 10¾	S.W.	S.S.W.		22½
12. 13¾	12. 14¼	S.S.W.	S.W.	22½	
12. 22¾	12. 23	S.W.	W.S.W.	22½	
13. 16¼	13. 16¾	W.S.W.	S.W.		22½
14. 0½	14. 1¼	S.W.	S.S.W.		22½
14. 8¾	14. 10¼	S.S.W.	S.W.	22½	
14. 16½	14. 16¾	S.W.	W.S.W.	22½	
15. 2	15. 2½	W.S.W.	S.S.W.		45
15. 4¾	15. 5¼	S.S.W.	S.S.E.		45
15. 10	15. 10½	S.S.E.	S.	22½	
15. 15½	15. 19	S.	S.W.	45	
16. 6	16. 6½	S.W.	S.S.W.		22½
16. 18¼	16. 19	S.S.W.	S.W.	22½	
16. 23¼	16. 23½	S.W.	S.S.W.		22½
17. 1¼	17. 1½	S.S.W.	S.		22½
17. 4¾	17. 5	S.	S.S.E.		22½
17. 8¼	17. 10	S.S.E.	S.W.	67½	
17. 12	17. 12½	S.W.	W.S.W.	22½	
18. 0¼	18. 0¾	W.S.W.	S.W.		22½
18. 9¼	18. 9¾	S.W.	S.S.E.		67½
18. 14½	18. 15	S.S.E.	S.E.		22½
18. 23½	18. 23¾	S.E.	E.S.E.		22½
19. 10	19. 11¼	E.S.E.	S.E.	22½	
20. 10	20. 11	S.E.	S.S.E.	22½	
20. 17	20. 17½	S.S.E.	S.E.		22½
21. 5¾	21. 6	S.E.	E.S.E.		22½
21. 14	21. 14¾	E.S.E.	S.E.	22½	
21. 19¼	21. 19¾	S.E.	S.S.E.	22½	
22. 5	22. 5¾	S.S.E.	W.S.W.	90	
22. 9¾	22. 10¼	W.S.W.	W.	22½	
22. 17½	22. 18¼	W.	N.	90	
22. 20	22. 20¼	N.	N.N.W.		22½
22. 23¼	22. 23½	N.N.W.	N.W.		22½

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
Nov.—*cont.*				°	°
d h	d h				
23. 1	23. 2	N.W.	W.		45
23. 3	23. 4¼	W.	N.	90	
23. 11	23. 11¼	N.	N.N.E.	22½	
23. 16¾	23. 17¼	N.N.E.	N.E.	22½	
24. 12½	24. 13	N.E.	E.N.E.	22½	
25. 20½	25. 21	E.N.E.	E.	22½	
26. 5½	26. 6	E.	E.S.E.	22½	
26. 19¾	26. 20	E.S.E.	E.		22½
27. 3	27. 3¼	E.	E.S.E.	22½	
28. 13¾	28. 14¼	E.S.E.	S.E.	22½	
28. 17¾	28. 20	S.E.	S.	45	
29. 2	29. 2½	S.	S.S.E.		22½
29. 21	29. 23	S.S.E.	S.S.W.	45	
30. 6	30. 7	S.S.W.	W.S.W.	45	
30. 11½	30. 13	W.S.W.	W.N.W.	45	
30. 23	30. 23½	W.N.W.	W.S.W.		45
			Sums	1935	1102½
December.					
1. 6	1. 6½	W.S.W.	S.W.		22½
1. 10½	1. 11¼	S.W.	W.S.W.	22½	
2. 15	2. 15¼	W.S.W.	S.W.		22½
2. 22½	2. 23	S.W.	W.S.W.	22½	
3. 10¼	3. 10½	W.S.W.	W.	22½	
3. 13	3. 13½	W.	W.N.W.	22½	
3. 16¼	3. 17	W.N.W.	W.S.W.		45
4. 11¼	4. 11½	W.S.W.	S.W.		22½
5. 4½	5. 5½	S.W.	W.S.W.	22½	
6. 9¼	6. 10	W.S.W.	W.N.W.	45	
6. 16½	6. 17	W.N.W.	W.		22½
6. 20	6. 20½	W.	W.S.W.		22½
7. 10¼	7. 10¾	W.S.W.	W.N.W.	45	
8. 14½	8. 14¾	W.N.W.	W.S.W.		45
8. 21	8. 21¼	W.S.W.	S.W.		22½
8. 23½	9. 0	S.W.	S.S.W.		22½
9. 7	9. 9¼	S.S.W.	W.S.W.	45	
10. 2¾	10. 3	W.S.W.	W.	22½	
10. 6	10. 6¾	W.	N.N.W.	67½	
10. 15½	10. 16¾	N.N.W.	W.S.W.		90
11. 7¼	11. 7¾	W.S.W.	N.E.		202½
11. 10½	11. 11	N.E.	S.S.E.	112½	
11. 21½	11. 21¾	S.S.E.	E.S.E.		45
12. 0¼	12. 1½	E.S.E.	W.		202½
12. 8	12. 9¼	W.	S.W.		45

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
Dec.—*cont.*				°	°
d h	d h				
12. 10½	12. 10¾	S.W.	S.S.W.		22½
12. 17	12. 18¼	S.S.W.	W.S.W.	45	
12. 21½	12. 22	W.S.W.	W.	22½	
13. 10¾	13. 11½	W.	W.N.W.	22½	
13. 18¼	13. 20	W.N.W.	N.W.	22½	
14. 4¼	14. 4¾	N.W.	W.N.W.		22½
14. 8	14. 8½	W.N.W.	W.S.W.		45
14. 13½	14. 14¼	W.S.W.	S.S.W.		45
15. 7¼	15. 7¾	S.S.W.	W.S.W.	45	
15. 19¼	15. 20	W.S.W.	S.W.		22½
15. 21	15. 21¼	S.W.	S.S.W.		22½
16. 17¼	16. 18½	S.S.W.	S.S.E.		45
17. 2¾	17. 3	S.S.E.	S.E.		22½
17. 9¾	17. 10	S.E.	E.S.E.		22½
17. 21¾	17. 22	E.S.E.	E.		22½
18. 12	18. 12¼	E.	E.S.E.	22½	
18. 22¾	18. 23	E.S.E.	E.		22½
19. 1½	19. 1¾	E.	E.N.E.		22½
19. 8	19. 8¼	E.N.E.	N.E.		22½
19. 21	19. 21½	N.E.	N.N.E.		22½
21. 14½	21. 15	N.N.E.	N.E.	22½	
21. 21¾	21. 22¼	N.E.	W.	225	
21. 23½	21. 23¾	W.	E.N.E.		202½
22. 4½	22. 5	E.N.E.	E.	22½	
22. 8	22. 8¼	E.	E.S.E.	22½	
24. 2	24. 5	E.S.E.	E.		22½
24. 23	25. 0	E.	E.N.E.		22½
25. 16½	25. 18	E.N.E.	N.E.		22½
26. 0½	26. 0¾	N.E.	E.N.E.	22½	
27. 21¼	27. 22¼	E.N.E.	E.S.E.	45	
28. 11¾	28. 12	E.S.E.	S.E.	22½	
28. 15¼	28. 17	S.E.	S.	45	
28. 19½	28. 20	S.	S.S.W.	22½	
29. 0¾	29. 2	S.S.W.	W.S.W.	45	
29. 17	29. 18	W.S.W.	S.W.		22½
29. 20	29. 20¼	S.W.	S.S.W.		22½
29. 22½	29. 22¾	S.S.W.	S.W.	22½	
30. 6½	30. 7¼	S.W.	W.S.W.	22½	
30. 13½	30. 14	W.S.W.	W.	22½	
31. 2	31. 2½	W.	W.S.W.		22½
31. 8¾	31. 10¼	W.S.W.	N.N.W.	90	
31. 16¾	31. 17	N.N.W.	N.	22½	
31. 19¾	31. 20	N.	E.	90	
31. 21	31. 21¼	E.	S.S.E.	67½	
31. 22½	31. 22¾	S.S.E.	S.S.W.	45	
31. 23¾	31. 24	S.S.W.	S.S.E.		45
			Sums	1507½	1597½

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

EXCESS of MOTION in each MONTH.

1895.	Direct. °	Retrograde. °	1895.	Direct. °	Retrograde. °
January	45		July	585	
February		517½	August	562½	
March	720		September	1665	
April	990		October	1125	
May	1462½		November	832½	
June	1800		December		90

The whole excess of direct motion for the year was 9180°.

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	1895.												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	10·5	8·7	12·2	9·5	8·4	6·7	10·3	8·6	6·7	8·8	13·2	14·2	9·8
2	11·2	8·2	12·3	9·0	8·2	6·6	9·7	8·3	6·4	8·5	12·5	14·2	9·6
3	11·5	8·0	11·5	9·4	8·1	6·9	8·8	8·9	6·3	9·3	13·1	13·7	9·6
4	12·0	8·0	12·1	9·9	8·3	6·8	9·5	8·8	5·7	9·6	12·7	14·2	9·8
5	12·2	8·4	12·3	9·0	8·2	6·6	8·8	9·1	6·4	9·4	12·6	14·7	9·8
6	12·5	9·0	12·3	9·5	8·0	6·5	10·6	9·3	5·9	9·2	12·7	14·6	10·0
7	11·8	9·4	12·1	9·9	7·7	7·0	10·4	8·6	6·0	9·5	12·4	13·8	9·9
8	11·7	9·8	13·0	10·0	9·0	7·6	11·6	10·1	5·7	9·7	12·6	14·6	10·4
9	12·4	9·6	12·4	11·8	10·7	8·3	12·3	10·9	6·3	9·7	12·6	14·9	11·0
10	12·9	10·3	13·2	12·4	11·6	9·2	12·5	11·8	7·6	11·4	13·0	15·1	11·7
11	13·5	11·0	14·1	12·3	12·5	9·2	13·4	12·6	8·9	12·8	14·8	15·6	12·6
Noon.	14·0	11·6	15·5	13·9	13·0	10·5	14·0	13·2	9·4	13·5	16·3	16·3	13·4
h 13	13·8	12·2	15·9	13·9	13·1	10·2	14·4	13·7	9·4	13·8	16·4	16·9	13·6
14	14·4	13·7	16·9	14·7	13·8	10·4	15·0	14·3	10·7	13·8	17·0	17·0	14·3
15	14·2	13·5	16·9	13·6	13·7	10·6	14·7	14·3	11·1	13·7	16·9	17·0	14·2
16	12·8	13·0	15·5	13·5	13·8	10·1	14·0	14·3	10·9	12·3	16·2	15·9	13·5
17	13·5	12·7	15·3	14·0	13·8	10·7	14·5	14·6	10·1	11·8	15·6	16·7	13·6
18	13·0	12·0	13·5	13·6	13·4	11·6	14·6	14·4	9·5	10·5	16·4	16·0	13·2
19	13·4	11·4	12·3	12·2	12·1	11·3	14·0	12·0	8·5	10·7	16·7	15·5	12·5
20	13·4	11·8	11·8	11·1	10·6	10·6	12·0	10·9	7·4	10·4	17·0	15·3	11·9
21	12·9	11·2	11·8	11·1	10·5	9·7	11·4	10·4	7·5	10·4	16·1	15·0	11·5
22	12·1	11·2	11·6	10·6	9·4	8·7	10·8	10·3	7·0	10·1	16·3	14·4	11·0
23	11·6	10·4	11·5	10·2	9·6	8·6	11·0	9·3	6·4	9·2	14·8	13·8	10·5
Midnight.	11·3	9·9	11·5	10·0	8·9	7·4	10·2	9·0	6·4	8·7	14·2	13·8	10·1
Means	12·6	10·6	13·2	11·5	10·7	8·8	12·0	11·2	7·8	10·7	14·7	15·1	11·6
Greatest Hourly Measures	34	34	56	37	34	29	31	32	28	48	43	53	...
Least Hourly Measures	0	0	0	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.)

1895.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	+1461	+1249	...	+ 529	...	...	+ 380	+ 765	+ 750	...	+ 410	+1135
2	+1262	+1402	...	+ 470	+ 876	...	+ 375	+ 741	+ 598	+ 633	+ 330	+1104
3	+1143	...	+ 841	+ 697	+ 662	+ 208	+ 530	+ 807	+ 628	+ 710	...	+1029
4	+1181	...	+1018	+ 966	+ 842	+ 529	+ 655	+ 257	+ 587	+ 517	+ 123	+ 746
5	+1292	+1537	+ 768	+ 500	+ 731	+ 622	+ 504	+ 311	+ 709	...	+ 443	+ 683
6	+1429	...	+ 993	+ 369	+ 535	+ 619	+ 581	+ 623	+ 456	...	+ 630	+ 822
7	+1365	...	+ 443	+ 668	+ 368	+ 557	+ 388	+ 748	+ 619	+ 916	+ 378	+1195
8	+1615	...	+ 816	+ 723	+ 497	+ 732	...	+ 878	+ 632	+ 16	+ 481	+1258
9	+1395	...	+ 472	+ 718	+ 459	+ 535	+ 440	+ 769	+ 643	+ 701	+ 557	+ 950
10	+1660	...	+ 839	+ 824	+ 519	+ 521	+ 488	+ 615	+ 582	+ 831	+ 187	+1110
11	+1566	...	+ 972	+ 951	+ 390	+ 583	+ 511	+ 449	+ 525	+1197	+ 221	+1577
12	+1444	...	+1247	+ 516	+ 495	+ 674	+ 682	+ 718	+ 705	+ 905	+ 518	+ 430
13	+ 479	...	+1136	+ 484	+ 438	+ 590	+ 712	+ 278	+ 767	+1046	+1078	+1187
14	+ 302	...	+1067	+ 682	+ 714	+ 630	+ 518	...	+ 779	+ 972	+ 955	+1281
15	+ 504	...	+1085	+ 676	+ 513	+ 677	+ 889	+1018	+ 382	+ 617	+ 557	+ 950
16	+ 475	...	+ 853	+ 609	+ 456	+ 305	+ 695	+ 509	+ 502	+ 982	+ 483	+ 318
17	+ 454	...	+ 978	+ 650	+ 712	+ 685	+ 597	+ 591	+ 735	+1224	+1007	+ 649
18	+1166	...	+ 767	+ 521	...	+ 599	+ 699	+ 670	...	+1046	+1095	+ 811
19	+ 33	...	+ 752	+ 681	+ 206	+ 618	+ 554	+ 928	+ 770	+ 885	+ 569	+1120
20	+ 497	...	+ 656	+ 909	+ 424	+ 519	+ 551	+ 852	+ 779	+ 835	+ 402	+1380
21	+ 849	...	+ 425	+ 707	+ 526	+ 586	− 37	+ 688	+ 768	+1050	+ 576	+1497
22	+1187	...	+1083	+ 555	+ 653	+ 565	...	+ 519	+ 778	+ 106	+ 501	+1621
23	+1024	...	+ 691	+ 613	+ 161	+ 703	+ 500	+ 738	+ 620	+ 823	+ 385	+ 990
24	+ 660	...	+ 360	+ 778	+ 363	+ 609	+ 264	+ 846	+ 520	+1201	+ 742	− 13
25	+ 857	...	+ 414	+ 694	+ 535	+ 773	+ 351	+ 764	...	+1309	+ 740	+ 182
26	+1311	...	+ 652	+ 135	+ 339	+ 475	+ 525	+ 617	+ 773	+1228	+ 995	+ 339
27	+1419	...	+ 120	+ 148	+ 423	+ 455	+ 693	+ 508	+ 674	+1280	+1118	+ 588
28	...	...	+ 533	+ 415	+ 796	+ 603	+ 593	+ 565	+ 763	+1345	+ 721	+ 826
29	...		+ 180	+ 688	+ 669	+ 518	...	+ 423	+ 674	+1135	+ 323	+ 900
30	...		+ 692	+ 743	+ 479	+ 457	+1007	+ 557	+ 675	+1295	+ 590	+ 503
31	+1157		+ 240		+ 545		+ 779	+ 881		+ 220		+ 883
Means ...	+1042	+1396	+ 727	+ 621	+ 528	+ 569	+ 551	+ 655	+ 657	+ 894	+ 590	+ 905

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.	1895.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight.	+1121	+1400	+ 764	+ 652	+ 508	+ 533	+ 569	+ 662	+ 642	+ 900	+ 540	+ 860	+ 763
1^h	+ 998	+1377	+ 677	+ 628	+ 507	+ 585	+ 505	+ 631	+ 523	+ 778	+ 497	+ 720	+ 702
2	+ 940	+1207	+ 509	+ 527	+ 438	+ 574	+ 405	+ 597	+ 542	+ 672	+ 460	+ 552	+ 619
3	+ 978	+1177	+ 580	+ 501	+ 337	+ 563	+ 395	+ 563	+ 546	+ 627	+ 416	+ 673	+ 613
4	+ 807	+1277	+ 549	+ 522	+ 353	+ 519	+ 367	+ 563	+ 534	+ 613	+ 449	+ 671	+ 602
5	+ 872	+1263	+ 590	+ 521	+ 373	+ 539	+ 459	+ 578	+ 530	+ 708	+ 473	+ 736	+ 637
6	+ 931	+1310	+ 596	+ 565	+ 458	+ 698	+ 612	+ 608	+ 432	+ 795	+ 497	+ 845	+ 696
7	+ 904	+1417	+ 734	+ 627	+ 562	+ 809	+ 743	+ 669	+ 574	+ 765	+ 541	+ 898	+ 770
8	+ 843	+1297	+ 665	+ 642	+ 680	+ 886	+ 776	+ 694	+ 638	+ 940	+ 545	+ 828	+ 786
9	+ 977	+1280	+ 717	+ 536	+ 716	+ 834	+ 705	+ 787	+ 689	+ 966	+ 559	+ 922	+ 807
10	+ 994	+1287	+ 688	+ 595	+ 709	+ 716	+ 597	+ 805	+ 688	+ 968	+ 563	+1003	+ 801
11	+1071	+1313	+ 825	+ 578	+ 639	+ 622	+ 557	+ 653	+ 637	+ 794	+ 558	+1031	+ 773
Noon.	+ 960	+1323	+ 709	+ 550	+ 408	+ 503	+ 484	+ 514	+ 678	+ 825	+ 625	+1094	+ 723
13^h	+1001	+1423	+ 750	+ 597	+ 531	+ 456	+ 418	+ 569	+ 681	+ 875	+ 618	+1122	+ 753
14	+1065	+1437	+ 647	+ 599	+ 373	+ 459	+ 356	+ 362	+ 657	+ 824	+ 689	+1007	+ 706
15	+1150	+1317	+ 827	+ 496	+ 366	+ 450	+ 485	+ 443	+ 671	+1000	+ 718	+1046	+ 747
16	+1185	+1203	+ 826	+ 529	+ 451	+ 400	+ 496	+ 557	+ 707	+ 989	+ 732	+ 983	+ 755
17	+1206	+1217	+ 861	+ 646	+ 581	+ 401	+ 459	+ 602	+ 797	+1009	+ 514	+1054	+ 779
18	+1254	+1360	+ 845	+ 756	+ 622	+ 365	+ 497	+ 803	+ 871	+1076	+ 810	+1025	+ 857
19	+1177	+1543	+ 695	+ 739	+ 665	+ 514	+ 631	+ 794	+ 836	+1158	+ 645	+1020	+ 868
20	+1307	+1700	+ 776	+ 779	+ 674	+ 525	+ 644	+ 897	+ 765	+1114	+ 740	+1034	+ 913
21	+1132	+1750	+ 889	+ 793	+ 638	+ 569	+ 680	+ 884	+ 752	+1050	+ 696	+ 924	+ 896
22	+1026	+1790	+ 908	+ 783	+ 562	+ 600	+ 739	+ 772	+ 716	+1044	+ 658	+ 889	+ 874
23	+1120	+1840	+ 832	+ 734	+ 533	+ 548	+ 644	+ 700	+ 655	+ 960	+ 623	+ 778	+ 831
24	+1132	+1773	+ 763	+ 651	+ 492	+ 519	+ 558	+ 663	+ 604	+ 925	+ 560	+ 866	+ 792
Means 0^h-23^h	+1042	+1396	+ 727	+ 621	+ 528	+ 569	+ 551	+ 655	+ 657	+ 894	+ 590	+ 905	+ 761
Means 1^h-24^h	+1043	+1412	+ 727	+ 621	+ 528	+ 569	+ 550	+ 655	+ 655	+ 895	+ 591	+ 905	+ 763
Number of Days employed.	28	3	29	30	29	28	28	30	28	28	29	31	...

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

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

Hour, Greenwich Civil Time.	1895.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight.	+ 941	+1325	+ 641	+ 642	+ 633	+ 407	+ 488	+ 575	+ 658	+ 772	+ 531	+ 706	+ 693
$1^{h.}$	+ 745	+1350	+ 514	+ 625	+ 530	+ 430	+ 395	+ 596	+ 237	+ 403	+ 466	+ 463	+ 563
2	+ 629	+1165	+ 247	+ 428	+ 363	+ 363	+ 209	+ 561	+ 575	+ 105	+ 452	+ 269	+ 447
3	+ 754	+1165	+ 372	+ 484	− 190	+ 440	+ 269	+ 510	+ 515	+ 48	+ 379	+ 476	+ 435
4	+ 388	+1270	+ 345	+ 512	+ 200	+ 403	+ 360	+ 498	+ 547	+ 34	+ 429	+ 480	+ 455
5	+ 638	+1200	+ 489	+ 464	+ 200	+ 417	+ 459	+ 524	+ 715	+ 432	+ 450	+ 557	+ 545
6	+ 682	+1265	+ 418	+ 509	+ 283	+ 560	+ 512	+ 548	− 242	+ 543	+ 493	+ 714	+ 524
7	+ 587	+1400	+ 618	+ 567	+ 323	+ 530	+ 623	+ 619	+ 460	+ 258	+ 529	+ 781	+ 608
8	+ 375	+1245	+ 393	+ 595	+ 577	+ 597	+ 579	+ 547	+ 490	+ 685	+ 536	+ 618	+ 603
9	+ 595	+1210	+ 522	+ 405	+ 750	+ 620	+ 452	+ 734	+ 710	+ 693	+ 515	+ 766	+ 664
10	+ 621	+1220	+ 450	+ 565	+ 723	+ 743	+ 339	+ 831	+ 672	+ 584	+ 428	+ 898	+ 673
11	+ 784	+1255	+ 671	+ 541	+ 850	+ 807	+ 462	+ 669	+ 550	+ 261	+ 388	+ 877	+ 676
Noon.	+ 551	+1190	+ 446	+ 482	− 603	+ 577	+ 461	+ 389	+ 650	+ 343	+ 521	+ 958	+ 497
$13^{h.}$	+ 628	+1330	+ 571	+ 600	+ 727	+ 537	+ 407	+ 579	+ 680	+ 512	+ 497	+ 981	+ 671
14	+ 924	+1425	+ 303	+ 593	− 670	+ 623	+ 230	+ 177	+ 622	+ 354	+ 594	+ 740	+ 493
15	+ 940	+1280	+ 687	+ 290	− 483	+ 667	+ 513	+ 312	+ 660	+ 814	+ 608	+ 836	+ 594
16	+ 955	+1110	+ 677	+ 331	+ 387	+ 637	+ 565	+ 514	+ 665	+ 764	+ 588	+ 727	+ 660
17	+ 993	+1065	+ 699	+ 529	+ 747	+ 720	+ 485	+ 499	+ 790	+ 664	+ 156	+ 846	+ 683
18	+ 978	+1155	+ 750	+ 733	+ 687	+ 683	+ 423	+ 784	+ 825	+ 740	+ 674	+ 803	+ 770
19	+ 781	+1365	+ 215	+ 550	+ 760	+ 603	+ 624	+ 706	+ 745	+ 881	+ 409	+ 801	+ 703
20	+1021	+1610	+ 313	+ 619	+ 750	+ 627	+ 587	+ 873	+ 660	+ 717	+ 644	+ 809	+ 769
21	+ 755	+1705	+ 622	+ 690	+ 700	+ 667	+ 634	+ 871	+ 783	+ 632	+ 588	+ 634	+ 773
22	+ 548	+1720	+ 767	+ 681	+ 520	+ 637	+ 713	+ 709	+ 875	+ 775	+ 524	+ 614	+ 757
23	+ 780	+1785	+ 691	+ 649	+ 383	+ 450	+ 575	+ 655	+ 720	+ 785	+ 528	+ 458	+ 705
24	+ 879	+1710	+ 549	+ 559	+ 307	+ 183	+ 536	+ 615	+ 738	+ 848	+ 476	+ 711	+ 676
Means $0^{h.}$–$23^{h.}$	+ 733	+1325	+ 518	+ 545	+ 381	+ 573	+ 473	+ 595	+ 607	+ 533	+ 497	+ 700	+ 623
Means $1^{h.}$–$24^{h.}$	+ 730	+1341	+ 514	+ 542	+ 368	+ 563	+ 475	+ 597	+ 610	+ 536	+ 495	+ 701	+ 623
Number of Days employed.	13	2	12	11	3	3	11	14	4	10	16	16	...

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.	1895.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight.	+1133	+1550	+ 984	+ 653	+ 500	+ 545	+ 627	+ 738	+ 646	+1041	+ 645	+ 969	+ 836
1h.	+1151	+1430	+ 933	+ 624	+ 508	+ 625	+ 568	+ 663	+ 579	+1019	+ 620	+ 968	+ 807
2	+1166	+1290	+ 883	+ 577	+ 470	+ 629	+ 520	+ 628	+ 546	+1031	+ 543	+ 917	+ 767
3	+1100	+1200	+ 945	+ 501	+ 408	+ 603	+ 487	+ 609	+ 559	+ 991	+ 526	+ 905	+ 736
4	+1083	+1290	+ 885	+ 524	+ 368	+ 570	+ 377	+ 621	+ 541	+ 968	+ 532	+ 910	+ 722
5	+ 961	+1390	+ 828	+ 556	+ 393	+ 599	+ 448	+ 625	+ 505	+ 907	+ 558	+ 968	+ 728
6	+1074	+1400	+ 879	+ 596	+ 475	+ 757	+ 729	+ 660	+ 550	+ 934	+ 543	+ 1022	+ 802
7	+1128	+1450	+ 984	+ 648	+ 592	+ 886	+ 887	+ 713	+ 597	+1029	+ 608	+ 1062	+ 882
8	+1181	+1400	+1048	+ 642	+ 708	+ 981	+ 921	+ 822	+ 666	+1068	+ 678	+ 1107	+ 935
9	+1214	+1420	+1017	+ 578	+ 719	+ 927	+ 861	+ 833	+ 691	+1127	+ 733	+ 1161	+ 940
10	+1242	+1420	+ 973	+ 584	+ 707	+ 751	+ 770	+ 783	+ 694	+1203	+ 781	+ 1167	+ 923
11	+1240	+1430	+1009	+ 576	+ 619	+ 615	+ 610	+ 639	+ 667	+1099	+ 794	+ 1220	+ 877
Noon.	+1247	+1590	+ 995	+ 568	+ 526	+ 516	+ 504	+ 624	+ 685	+1095	+ 755	+ 1253	+ 863
13h.	+1274	+1610	+ 912	+ 560	+ 507	+ 456	+ 473	+ 561	+ 685	+1081	+ 769	+ 1303	+ 849
14	+1060	+1460	+ 906	+ 564	+ 488	+ 459	+ 488	+ 524	+ 667	+1073	+ 816	+ 1328	+ 819
15	+1299	+1390	+ 965	+ 580	+ 449	+ 430	+ 510	+ 557	+ 677	+1086	+ 872	+ 1303	+ 843
16	+1344	+1390	+ 933	+ 600	+ 447	+ 392	+ 497	+ 596	+ 720	+1089	+ 953	+ 1309	+ 856
17	+1319	+1520	+ 965	+ 668	+ 548	+ 395	+ 485	+ 692	+ 805	+1174	+ 1029	+ 1307	+ 909
18	+1479	+1770	+ 856	+ 717	+ 602	+ 416	+ 550	+ 820	+ 879	+1252	+ 1042	+ 1296	+ 973
19	+1536	+1900	+ 986	+ 801	+ 640	+ 496	+ 618	+ 872	+ 850	+1309	+ 989	+ 1319	+1026
20	+1599	+1880	+1065	+ 831	+ 657	+ 496	+ 648	+ 919	+ 787	+1340	+ 917	+ 1341	+1040
21	+1448	+1840	+1112	+ 838	+ 632	+ 554	+ 678	+ 895	+ 756	+1301	+ 892	+ 1299	+1020
22	+1453	+1930	+1162	+ 839	+ 574	+ 593	+ 733	+ 826	+ 702	+1200	+ 862	+ 1273	+1012
23	+1432	+1950	+1139	+ 783	+ 566	+ 558	+ 670	+ 739	+ 655	+1040	+ 757	+ 1244	+ 961
24	+1331	+1900	+1062	+ 719	+ 535	+ 569	+ 560	+ 705	+ 593	+ 949	+ 671	+ 1152	+ 896
Means 0h.–23h.	+1257	+1538	+ 974	+ 642	+ 546	+ 594	+ 611	+ 707	+ 671	+1102	+ 759	+ 1165	+ 880
Means 1h.–24h.	+1265	+1552	+ 977	+ 645	+ 547	+ 595	+ 608	+ 705	+ 669	+1099	+ 760	+ 1172	+ 883
Number of Days employed.	9	1	11	17	24	21	12	16	23	15	10	12	...

AMOUNT of RAIN COLLECTED in each MONTH of the YEAR 1895.

MONTH, 1895.	Number of Rainy Days.	Monthly Amount of Rain collected in each Gauge. Self-registering Gauge of Osler's Anemometer. No. 1.	Second Gauge at Osler's Anemometer. No. 2.	On the roof of the Octagon Room. No. 3.	On the roof of the Magnetic Observatory. No. 4.	On the roof of the Photographic Thermometer Shed. No. 5.	Gauges partly sunk in the ground. No. 6.	No. 7.	No. 8.
		in.	in.	in.	in.	in.	in.	in.	in.
January	19	0·773	0·777	1·131	1·165	1·445	1·617	1·636	1·593
February	4	0·109	0·101	0·157	0·220	0·228	0·222	0·236	0·254
March	19	0·736	0·717	1·084	1·192	1·367	1·428	1·402	1·472
April	12	0·920	0·859	1·084	1·130	1·226	1·251	1·197	1·253
May	6	0·269	0·244	0·356	0·430	0·455	0·454	0·452	0·461
June	8	0·108	0·103	0·163	0·215	0·220	0·207	0·208	0·218
July	16	2·601	2·594	3·007	3·240	3·370	3·388	3·347	3·391
August	15	1·701	1·580	1·841	2·021	2·125	2·142	2·137	2·162
September	5	0·706	0·666	0·748	0·880	0·969	0·930	0·929	0·962
October	15	1·794	1·616	2·225	2·574	2·687	2·691	2·705	2·750
November	20	1·941	1·740	2·179	2·449	2·764	2·889	2·860	2·934
December	19	1·763	1·715	1·963	2·196	2·364	2·506	2·453	2·440
Sums	158	13·421	12·712	15·938	17·712	19·220	19·725	19·562	19·890
Height of receiving Surface above the ground	...	ft. in. 50. 8	ft. in. 50. 8	ft. in. 38. 4	ft. in. 21. 6	ft. in. 10. 0	ft. in. 0. 5	ft. in. 0. 5	ft. in. 0. 5
Height of receiving Surface above mean sea level	...	ft. in. 205. 6	ft. in. 205. 6	ft. in. 193. 2	ft. in. 176. 4	ft. in. 164. 10	ft. in. 155. 3	ft. in. 155. 3	ft. in. 155. 3

ROYAL OBSERVATORY, GREENWICH.

OBSERVATIONS

OF

LUMINOUS METEORS.

1895.

Month and Day, 1895.		Greenwich Civil Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	No. for Reference.
		h m s				s		°	
June	22	21.49. 0	C.	>1	Bluish-white	2·5	None	20	1
July	7	22.49. 0	D.	Venus	Bluish-white	5·0	None	8°—10°	2
July	26	0. 3. 0	C.	1	Bluish-white	2·0	Broken	15	3
August	12	22.27.15	B.	1	Yellowish	0·7	Slight	5	4
	"	22.37.47	B.	1	Bluish-white	1·0	None	8	5
	"	23.11.14	B.	1	Bluish-white	0·5	None	10	6
August	30	23.14. 0	C.	Vega × 4	Bluish-white, changing to Yellow	2·0	Short: broken	20	7
November	12	22.23.18	C.	3	Bluish-white	0·5	None	10	8
	"	22.48.30	B.	1	Bluish-white	0·8	None	10	9
	"	23.28.40	B.	3	Bluish-white	0·5	None	10	10
	"	23.48.51	C.	3	Bluish-white	0·5	None	5	11
	"	23.56. 8	C.	3	Bluish-white	0·3	None	15	12
November	13	0.19.56	B.	2	Bluish-white	0·5	None	5	13
	"	0.26. 0	C.	3	Bluish-white	0·2	None	12	14
	"	0.28.30	C.	4	Bluish-white	0·3	None	15	15
	"	0.43.24	B.	3	Bluish-white	0·5	None	10	16
	"	0.50.50	C.	2	Bluish-white	3·0	Bright	15	17
	"	0.51. 9	C.	2	Bluish-white	2·0	Train remained visible for 1s.	12	18
	"	1. 4.41	B.	1	Bluish-white	1·0	Train	15	19
	"	1. 6. 1	C.	3	Bluish-white	0·3	None	6	20
	"	1.12.22	B.	2	Bluish-white	1·5	None	8	21
	"	1.16.44	C.	4	Bluish-white	0·4	None	7	22
	"	1.20. 8	C.	3	Bluish-white	0·5	None	20	23

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

No. for Reference.	Path of Meteor through the Stars.
1	From an altitude of about 60° bearing W.N.W. fell nearly vertically downwards.
2	From a point about 6° further from the Pole than ε Ursæ Majoris moved in a direction a little North of the parallel of declination: nucleus double, separated by about 15′.
3	From a point about midway between γ Persei and ε Cassiopeiæ moved towards α Aurigæ.
4	From ψ Pegasi in the direction of γ Piscium.
5	From midway between 13 and η Lyræ towards μ Herculis.
6	From σ Cygni towards ξ Aquilæ.
7	From α Arietis appeared as a pear-shaped ball of fire moving towards a point midway between Aldebaran and the Pleiades, and, changing colour, broke into fragments shortly before its disappearance.
8	From ε Persei moved towards the Pleiades.
9	From β Camelopardali moved towards Polaris.
10	From δ Aurigæ moved towards ο Ursæ Majoris.
11	From δ Aurigæ moved towards a point midway between Capella and β Aurigæ.
12	From γ Orionis to a point midway between β Orionis and γ Eridani.
13	From a point 7° to S.W. of Polaris moved towards that star.
14	From α Persei moved in a direction 3° West of North.
15	From β Tauri moved towards and disappeared a little beyond ε Geminorum.
16	From Castor moved towards α Lyncis.
17	From α Arietis moved nearly vertically downwards.
18	From γ Eridani moved nearly vertically downwards.
19	From a point about 10° to the S.S.E. of Polaris moved towards ε Cassiopeiæ.
20	From a point 10° to the South of Polaris moved towards that star.
21	From ζ Orionis moved towards Sirius.
22	From a point midway between ζ Persei and the Pleiades moved towards 21 Persei.
23	From α Persei moved towards β Cassiopeiæ.

Month and Day, 1895.	Greenwich Civil Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	No. for Reference.
	h m s				s		°	
November 13	1. 20. 19	C.	2	Bluish-white	1·0	None	15	24
,,	1. 23. 29	.	2	Bluish-white	1·0	None	12	25
,,	1. 28. 39	C.	3	Bluish-white	0·8	None	8	26
,,	1. 35. 18	B.	3	Bluish-white	0·5	None	5	27
,,	1. 36. 1	B.	3	Bluish-white	0·6	None	7	28
,,	1. 59. 53	B.	2	Bluish-white	1·0	None	12	29
,,	2. 5. 10	B.	2	Bluish-white	0·7	None	10	30
,,	2. 8. 0	C.	3	Bluish-white	1·0	None	15	31
,,	2. 8. 38	C.	1	Bluish-white	1·5	None	12	32
,,	2. 21. 9	B.	2	Bluish-white	0·4	None	7	33
,,	2. 24. 34	C.	3	Bluish-white	0·4	None	20	34
,,	2. 30. 5	B.	3	Bluish-white	0·4	None	10	35
,,	2. 30. 54	C.	1	Bluish-white	2·0	Broken	25	36
,,	2. 34. 37	B.	3	Bluish-white	0·5	Slight	7	37
,,	21. 35. 14	B.	2	Bluish-white	1·2	Train	12	38
,,	21. 46. 41	B.	3	Bluish-white	0·4	None	5	39
,,	21. 52. 5	B.	3	Bluish-white	0·4	None	5	40
,,	22. 3. 20	C.	3	Bluish-white	0·3	None	15	41
,,	22. 16. 11	C.	2	Bluish-white	0·8	None	12	42
,,	22. 17. 4	B.	3	Bluish-white	0·3	None	7	43
,,	22. 20. 41	C.	>1	Bluish-white	1·0	Slight	10	44
,,	22. 22. 48	C.	< Jupiter	Yellowish	3·0	Broken, $0^{s}\cdot5$	20	45
,,	22. 35. 19	C.	3	Bluish-white	0·3	None	8	46
,,	22. 39. 25	C.	2	Bluish-white	0·5	None	20	47
,,	22. 43. 39	C.	1	Yellowish	4·0	Brilliant	70	48
,,	22. 47. 23	C.	2	Bluish-white	2·0	Brilliant	30	49
,,	22. 59. 56	B.	3	Bluish-white	0·5	None	8	50
,,	23. 3. 19	B.	3	Bluish-white	0·4	None	5	51
,,	23. 8. 16	C.	2	Bluish-white	0·8	None	10	52
,,	23. 11. 19	C.	3	Bluish-white	0·6	None	15	53
,,	23. 17. 52	B.	1	Bluish-white	2·0	Brilliant	30	54
,,	23. 32. 41	B.	3	Bluish-white	0·4	None	10	55

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

No. for Reference.	Path of Meteor through the Stars.
24*	From Aldebaran moved towards β Orionis.
25	From α Arietis fell nearly vertically downwards.
26	From a little to the East of Capella moved towards a point about midway between 46 and β Aurigæ.
27	From Castor moved in the direction of β Aurigæ.
28	From a point about 5° to the S.E. of ζ Orionis moved towards β Canis Majoris.
29	From a point 5° to the North of α Persei moved towards Polaris.
30	From β Aurigæ moved towards α Orionis.
31	From θ Geminorum moved towards ζ Cancri.
32	From a point 7° to the West of the Pleiades moved towards a point a little to the North of the same group.
33	From a point 20° to the South of Polaris moved towards ε Cassiopeiæ.
34	From a point midway between γ Geminorum and α Orionis moved towards a point midway between Procyon and Sirius.
35	From a point 10° North of Castor towards ο Ursæ Majoris.
36	From near 23 Ursæ Majoris moved in a curved path towards γ Cephei, passing close to Polaris.
37	From a point midway between α Cancri and λ Leonis moved towards Regulus.
38	From a little to the East of δ Persei moved towards β Tauri.
39	From a point midway between λ and α Persei moved towards ε Persei.
40	From a point 5° North of ο Persei moved towards α Persei.
41	From near κ Aurigæ moved towards ε Tauri.
42	From a point a little to the North of ο Ursæ Majoris moved towards α Ursæ Majoris.
43	From a point midway between β Tauri and the Pleiades moved towards the Pleiades.
44	From a point midway between ι and β Orionis fell vertically downwards.
45	From Jupiter (R.A. $8^{h.}$ $46^{m.}$, N.P.D. 71°. 32′) moved slowly in a slightly curved path towards β Canis Minoris.
46	From midway between ζ Tauri and the Pleiades moved towards β Tauri.
47	From ε Cassiopeiæ moved towards β Andromedæ.
48	From γ Orionis moved slowly across the sky towards β Ceti.
49	From a point 5° below β Orionis moved in a westerly direction parallel to the horizon.
50	From a point a little to the West of α Cassiopeiæ moved towards α Cygni.
51	From θ Cygni moved towards α Cygni.
52	From midway between α and β Persei moved towards ζ Aurigæ.
53	From ι Leporis moved towards Sirius.
54	From a point 10° West of κ Orionis moved parallel to the horizon in a westerly direction.
55	From a point a little to the West of ζ Ursæ Minoris moved vertically downwards.

Month and Day, 1895.	Greenwich Civil Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	No. for Reference.
	h m s				s		°	
December 10	20. 34. 11	M.	1	Bluish-white	0·9	None	15	56
,,	21. 55. 28	M.	3	Bluish-white	0·7	None	15	57
,,	22. 6. 13	M.	2	Bluish-white	0·9	Slight	20	58
,,	22. 12. 44	M.	2	Bluish-white	0·7	None	14	59
,,	22. 23. 47	M.	4	Bluish-white	0·5	None	9	60
December 13	19. 37. 38	M.	3	Bluish white	0·6	None	10	61
,,	19. 44. 1	M.	2	Bluish-white	0·5	None	7	62
,,	19. 53. 54	M.	1	Bluish-white	1·0	Slight	12	63
,,	20. 10. 45	M.	1	Bluish-white	1·2	Brilliant	20	64
,,	20. 25. 21	M.	3	Bluish-white	0·6	None	5	65
,,	21. 56. 12	M.	2	Bluish-white	0·8	None	12	66
,,	22. 7. 4	M.	1	Bluish-white	0·9	None	13	67
,,	22. 21. 0	M.	2	Bluish-white	0·7	None	8	68

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

No. for Reference.	Path of Meteor through the Stars.
56	From a point midway between α and β Ursæ Majoris moved towards κ Draconis.
57	From a point a little to the North of Castor fell vertically downwards.
58	From a point a little below α Orionis moved towards κ Orionis.
59	From γ Geminorum moved in a curved path towards β Canis Majoris.
60	From a point a little above λ Ursæ Majoris moved towards ψ Ursæ Majoris.
61	From a point a little to the North of β Cephei moved towards α Cephei.
62	From a little to the North of β Aurigæ fell vertically downwards.
63	From a point midway between β and θ Aurigæ moved towards ε Persei.
64	From a point about 5° North of β Aurigæ moved slowly towards γ Persei.
65	From γ Persei moved towards α Persei.
66	From ψ Ursæ Majoris moved in a westerly direction parallel to the horizon.
67	From γ Eridani moved in a curved path towards β Eridani.
68	From a little to the East of ζ Orionis moved towards β Orionis.