RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL

OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1894

UNDER THE DIRECTION OF

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

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

LONDON:
PRINTED FOR HER MAJESTY'S STATIONERY OFFICE,
BY DARLING & SON, LTD., 1, 2, 3, & 5, GREAT ST. THOMAS APOSTLE, E.C.

1897.

INDEX.

PAGE

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS—*continued.*

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS.

1894.

GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS,

1894.

Introduction.

§ 1. *Personal Establishment and Arrangements.*

During the year 1894 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, Henry James MacManus, Albert Walter, Percival D. Beadle, Ernest William Wenborn, and Thomas Percy Marchant.

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 temporarily 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 25 feet to the west of the photographic thermometers is situated the revolving stand carrying the thermometers used for ordinary eye observations, and adjacent to the thermometer stand on the north side are three rain gauges. Between the rain gauges and the Magnet House are placed the thermometers for solar and terrestrial radiation; they are laid on short grass, and freely exposed to the sky. A little to the east of the thermometer stand is placed a Stevenson screen containing dry bulb, wet bulb, and maximum and minimum thermometers. On 1894 November 5 the thermometer stand and the Stevenson screen were shifted to the north side of the photographic thermometer shed, and the radiation thermometers and one rain gauge were shifted about 60 feet eastwards.

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 Pavilion on the north side of the Magnetical Observatory was also commenced about the same time.

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* 1894.

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.

On August 25 the suspension skein gave way. A new skein was mounted on August 27, and on August 28 observations were recommenced.

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}·5 equivalent to $-$ 6″·75, 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″·2.

The reading for the line of collimation of the theodolite telescope was found by ten double observations on 1893 December 6 to be 100ʳ·228 ; by ten double observations on 1894 August 31, 100ʳ·237 ; and by ten double observations on 1894 December 7, 100ʳ·237. The value used throughout the year 1894 was 100ʳ·200.

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 1892 November 29, which showed that in the ordinary position of the glass the theodolite readings were diminished by 18″·4. Two other sets of observations, made on 1893 December 6, and 1894 December 10, gave 19″·9 and 20″·7 respectively. The mean of these, 19″·7 has been added to all readings throughout the year 1894.

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 1894 was 26′. 3″·7, being the mean of determinations made on 1890 August 12, 1891 November 26, 1892 November 29, 1893 December 7, and 1894 December 10, giving respectively 26′. 8″·2, 25′. 55″·1, 26′. 7″·1, 26′. 6″·5, and 26′. 1″·8. With the collimator in its usual position, above the magnet, the quantity 26′. 3″·7 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, with the thread in use till 1894 August 25, $\frac{1}{153}$ on 1892 November 30, and $\frac{1}{155}$ on 1893 December 7, and with the new thread mounted on 1894 August 27, $\frac{1}{120}$ on 1894 August 28, and $\frac{1}{132}$ on 1894 December 10. During the year 1894 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 1892 November 29 to be 31^s·01, and on 1894 December 7, 30^s·99.

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 May 23 was 27°. 0′. 58″·1, and from May 24 to December 31, 27°. 0′. 19″·2.

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 $9^h. 5^m$, $13^h. 5^m$, $15^h. 5^m$, and $21^h. 5^m$ 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 $1^{in}\cdot14$: at the lower pulleys the distance between the branches is $0^{in}\cdot80$. 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 1894 January 5 the following observations were made for determination of the angle of torsion :—

1894, Day.	The Marked End of the Magnet.							
	West.				East.			
	Torsion-Circle Reading.	Scale Reading.	Difference of Scale Readings for change of 1° of Torsion-Circle Reading.	Mean of the Times of Vibration.	Torsion-Circle Reading.	Scale Reading.	Difference of Scale Readings for change of 1° of Torsion-Circle Reading.	Mean of the Times of Vibration.
	°	div.	div.	s	°	div.	div.	s
Jan. 5	146	50·07		21·18	230	48·31		20·80
			8·66				7·35	
	147	58·73		20·96	231	55·66		20·92
			8·76				9·03	
	148	67·49		20·74	232	64·69		21·10

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°. 20′, marked end east, the difference being 84°. 20′. Half this difference, or 42°. 10′, 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 1894 was 42°. 10′.

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 0·002364, which value has been used throughout the year 1894 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, 13^h, 15^h, and 21^h 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°. 10′ the movement of the spot of light on the cylinder for a change of 0·01 of horizontal force is thus found to be 2·478 inches, and with this unit the cardboard scale for measure of the ordinates was prepared. The ordinates being measured for the times at which eye observations 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 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 59 observations made during the course of the year this was found to be $19^{s}{\cdot}130$.

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 1894.

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

The variation of vertical force, in terms of the whole vertical force, producing angular motion of the magnet corresponding to a change of one division of scale reading = cotan. 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 $T' = 16^{s}\cdot685$, $T = 19^{s}\cdot130$, and dip $= 67^{\circ}.\ 17'$, the change of vertical force corresponding to change of one division of scale reading was found to be 0·0004183, and this value has been used throughout the year 1894 for conversion of the observed scale readings into parts of the whole vertical force.

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

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

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

The scale for measure of ordinates of the photographic curve is determined as follows: — The distance from the concave mirror of the magnet to the surface of the registering cylinder is 100·2 inches. But the double of this measure, or 200·4 inches, is the distance that determines the extent of motion on the cylinder of the spot of light, which, in inches, for a change of 0·01 part of the whole vertical force, will therefore be $= 200{\cdot}4 \times \text{tan. dip} \times \left(\frac{T}{T'}\right)^2 \times 0{\cdot}01$. 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, 6·293 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 = μ = 0·00015587.

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

Moment of inertia of the deflecting magnet = K. At temperature 30°, log. K = 0·66643 : at temperature 90°, log. K = 0·66679.

The distance on the deflexion rod from $1^{ft.}0$ east to $1^{ft.}0$ west of the engraved scale, at temperature 62°, is too long by 0·0034 inch, and the distance from $1^{ft.}3$ east to $1^{ft.}3$ west is too long by 0·0053 inch. The coefficient of expansion of the scale for 1° is ·00001.

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

Let m = Magnetic moment of deflecting or vibrating magnet.
X = Horizontal component of Earth's magnetic force.

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

u_1, u_2 the observed angles of deflexion.

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

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

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

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

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

$\frac{m}{X} = A_2 \left(1 - \frac{P}{r_2^2}\right)$, 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

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

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

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

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

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

From the combination of the values of $\frac{m}{X}$ and mX, m and X are immediately found. The computation is made with reference to English measure, taking as units of length and weight the foot and grain, but it is desirable to express X also in metric measure. If the English foot be supposed equal to a 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 a^3 and $a^2\beta$ respectively, or X must be multiplied by $\sqrt{\frac{\beta}{a}}$. 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$^{\text{cms.}}$·020. The coefficient of expansion of the scale for 1° centigrade is ·000018.

The value of P is calculated from the expression $P = (\text{Log. } A_1 - \text{Log. } A_2) \times 4737$. 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 2½ miles from the nearest earth plate (at the North Kent East Junction of the South-Eastern Railway), and about 4½ 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 10 days in the year 1894 which have been classed as days of great disturbance, viz.: February 23, 24, 25, 28, March 30, 31, July 20, August 20, September 15 and November 13. Other days of lesser disturbance are January 3–4, 11–12, February 20–21, 21–22, March 21–22, 22–23, April 17–18, June 9–10, 10–11, July 2–3, September 14, 19–20, 20–21. 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.

Separating the days of great disturbance, to be spoken of hereafter, the photographic sheets for the remaining available days, including those of lesser disturbance, were thus treated. Through each photographic trace 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. The omissions actually 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, are February 23, 24, 25, 28, March 30, 31, July 20, August 20, September 15 and November 13. From other causes the following days are also omitted in Tables I. and II., viz., June 4, 5 and 6 ; and in Tables III. to VI., November 14.

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 two additional stoves placed in the basement at the beginning of the year 1889, 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 June 9, which should be taken as 1043 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

$$\text{H.F. in metrical measure} \times \sin 1' = 1{\cdot}8287 \times \sin 1' = 0{\cdot}0005319.$$

For variation of horizontal force, the factor is

$$\text{H.F. in metrical measure} = 1{\cdot}8287,$$

and for variation of vertical force

$$\text{V. F. in metrical measure} = \text{H. F. in metrical measure} \times \tan \text{dip},$$
$$= 1{\cdot}8287 \times \tan 67^\circ.17'.19'' = 4{\cdot}3692.$$

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.

Magnetic Reductions; Harmonic Analysis of Magnetic Diurnal Inequalities.

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

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

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

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

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

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

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

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

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

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

The values of the 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—

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

a mean value of h for the month being employed.

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

1894.	a_5.	b_5.
Declination	−0′·09	−0′·01
Horizontal Force......	−0·9	−2·1
Vertical Force	+0·2	−0·5

In order to give some indication of the accuracy with which the results of observation are represented by the harmonic formula, the sums of squares of residuals remaining after the introduction of m and of each successive pair of terms of the expression on page (xii), corresponding to the single terms of the expressions on page (xiii), have been calculated for the mean diurnal inequalities for the year (columns 1, 2, and 3 of Table XII.). The respective sums of squares of residuals are as follows :—

SUMS OF SQUARES OF RESIDUALS OF DIURNAL INEQUALITIES.

For the Year 1894.	Declination.	Horizontal Force.	Vertical Force.
Sums of Squares of Observed Values (Table XII.)	398′·16	527724·9	20770·1
Sums of Squares of Residuals after the introduction of m	173·13	94231·1	5904·8
" " a_1 and b_1	54·03	23563·4	2557·5
" " a_2 and b_2	9·83	3434·1	302·7
" " a_3 and b_3	0·90	567·0	53·8
" " a_4 and b_4	0·12	89·9	8·1
" " a_5 and b_5	0·02	27·7	4·5

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 1894 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 great and 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 1894, affording thereby, it is hoped, facilities for making comparison with solar phenomena.

In regard to the plates, it may be remarked that on each day three distinct registers are usually given, viz.: declination, horizontal force and vertical force; all necessary information for proper understanding of the plates being added in the notes on page (xxxii).

An additional plate (XIII.) 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 $4\frac{1}{2}^{\circ}$ of temperature throws the horizontal force curve upward by 0·001 of the whole horizontal force; an increase of about 5° of temperature throws the vertical force curve downward by 0·001 of the whole vertical force.

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

—	LENGTH IN INCHES					
	Of 1° of Declination.		Of 0·01 of Horizontal Force.		Of 0·01 of Vertical Force.	
	in.	mm.	in.	mm.	in.	mm.
On the Photographs	4·691	119·15	2·478	62·94	6·293	159·84
On the Plates -	2·580	65·53	1·363	34·62	3·461	87·91

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

= ·0175 of Horizontal Force

and Vertical Force = Horizontal Force × tan. dip [dip = 67°. 17′]

= Horizontal Force × 2·3892

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

—	LENGTH OF UNIT, EQUIVALENT TO 0·01 OF HORIZONTAL FORCE.					
	For Declination Curve.		For Horizontal Force Curve.		For Vertical Force Curve.	
	in.	mm.	in.	mm.	in.	mm.
On the Photographs	2·68	68·1	2·48	62·9	2·63	66·9
On the Plates -	1·47	37·4	1·36	34·6	1·45	36·8

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

Foot-grain-second,	or British unit, in terms of which Mean H. F. for 1894	= 3·9661
Millimètre-milligramme-second,	or Metric unit, ,, ,, ,,	= 1·8287
Centimètre-gramme-second,	or C. G. S. unit, ,, ,, ,,	= 0·18287

Dividing therefore the scale values last given by 3·9661, 1·8287, and 0·18287 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 - -	0·68	17·2	0·37	9·4	0·62	15·9	0·34	8·7	0·66	16·9	0·37	9·3
Metric - -	1·47	37·2	0·81	20·5	1·36	34·4	0·75	18·9	1·44	36·6	0·79	20·1
C. G. S. - -	14·7	372·	8·1	205·	13·6	344·	7·5	189·	14·4	366·	7·9	201·

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, as on September 21, 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}·565 in diameter and the depression of the mercury due to capillary action is 0^{in}·002, but no correction is applied on this account. The cistern is of glass, and the graduated scale and attached rod are of brass ; at its lower end the rod terminates in a point of ivory, which in observation is made just to meet the reflected image of the point as seen in the mercury. The scale is divided to 0^{in}·05, sub-divided by vernier to 0^{in}·002.

The readings of this barometer until 1866 August 20 are considered to be coincident with those of the Royal Society's flint-glass standard barometer. It then became necessary to remove the sliding rod, for repair of its slow motion screw, which was completed on August 30. Before the removal of the rod the barometer had been compared with three other barometers, one of which, during repair of the rod, was used for the daily readings. After restoration of the rod a comparison was again made with the same three barometers, from which it appeared that the readings of the standard, in its new state, required a correction of $-0^{in}\cdot006$, 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 35 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°·2 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, with one exception, all by Negretti and Zambra. The maximum thermometers are on Negretti and Zambra's principle, the minimum thermometers are of Rutherford's construction. Browning's maximum, No. 1170, used temporarily for temperature of evaporation, is on Phillips' principle. 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. 68726, used till 1894 July 31, for maximum temperature of evaporation, required a correction of + 0°·2, and those of Browning, No. 1170, used from 1894 August 1 to 23, and of Negretti and Zambra, No. 79224, used after August 23, required no correction. The readings of Negretti and Zambra, No. 3627, used for minimum temperature of evaporation until 1894 July 31, required a correction of + 2°·0, and the readings of Negretti and Zambra, No. 2048, afterwards used, 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 11 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 $- 0^{\circ}\cdot1$ has been applied. The wet-bulb is Hicks No. 268525, to the readings of which a correction of $+ 0^{\circ}\cdot1$ has been applied. The maximum thermometer is Negretti and Zambra, No. 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° $0^{\circ}\cdot0$, 34° to 39° $+ 0^{\circ}\cdot1$, 39° to 43° $+ 0^{\circ}\cdot2$, 43° to 49° $+ 0^{\circ}\cdot3$, 49° to 54° $+ 0^{\circ}\cdot4$, 54° to 60° $+ 0^{\circ}\cdot5$, 60° to 65° $+ 0^{\circ}\cdot6$, and above 65° $+ 0^{\circ}\cdot7$. 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 $- 0^{\circ}\cdot2$. No. 37467, also by Negretti and Zambra, is a self-registering maximum thermometer, and required a correction of $- 0^{\circ}\cdot5$. No. 342663, by Hicks, is a self-registering minimum thermometer, and required correction as follows: below 35° $0^{\circ}\cdot0$, between 35° and 45° $+ 0^{\circ}\cdot1$, between 45° and 55° $+ 0^{\circ}\cdot2$, and above 55° $+ 0^{\circ}\cdot3$. The bulbs of all these thermometers are 4 feet above the platform, and about 20 feet above the ground. The 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 11½ inches high and 14¼ 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 ½ an inch in internal bore, ar separated horizontally by 5 inches, the tubes of the thermometers having a double bena 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, a little south 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 throughout the year was Negretti and Zambra, No. 49230. 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, 37°·0 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 1894 eight rain-gauges were employed, placed at different elevations above the ground, complete information in regard to which will be found at page (xcviii) 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.

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 (lxiii) and (lxiv)) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pages (lxii) and (lxiii)).

The excess of the mean temperature of the air on each day above the average of 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 (lxi) and (xcviii), 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 (xxxv) to (lvii), and in the abstract table, page (lxi), 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 (lxii) and (lxiii), do not in some cases agree with the monthly means given in the daily results, pages (xxxiv) to (lvii), and in the table on page (lxi), in consequence of occasional interruption of the photographic register, at which times daily values to complete the daily results could be supplied from the eye observations, as mentioned in the foot 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 (lxxxv), exhibits every change of direction of the wind occurring throughout the year whenever such change amounted to two nautical points or $22\frac{1}{2}°$. It is to be understood that the change from one direction to another during the interval between the times mentioned in each line of the table was generally gradual. All complete turnings of the vane which were evidently of accidental nature, and which in the year 1881 and in previous years had been included, are here omitted. Between any time given in the second column and that next following in the first column no change of direction in general occurred varying from that given by so much as one point or $11\frac{1}{4}°$. From the numbers given in this table the monthly and yearly excess of motion, page (xcii), 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 (xcvi) and (xcvii) 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 1894 were Mr. Claxton and Mr. Beadle; their observations are distinguished by the initials C and B, respectively.

W. H. M. CHRISTIE.

Royal Observatory, Greenwich,
1896 November 19.

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL OBSERVATIONS

(EXCLUDING THE DAYS OF GREAT MAGNETIC DISTURBANCE).

1894.

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

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

1894.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	17°	17°	17°	17°	17°	17°	17°	17°	17°	16°	16°	16°
d	′	′	′	′	′	′	′	′	′	′	′	′
1	7·8	7·9	5·9	7·2	5·1	5·4	4·9	4·7	3·5	62·7	62·1	60·8
2	8·6	7·8	7·1	6·8	4·5	5·3	5·7	6·0	3·2	62·4	62·9	59·9
3	7·5	7·8	7·8	6·9	5·9	5·7	5·6	5·9	3·5	62·0	63·3	60·1
4	9·2	7·5	7·8	7·5	6·2	...	6·3	5·4	3·0	63·6	62·0	60·2
5	9·9	6·4	7·2	7·2	6·4	...	6·2	4·5	2·0	64·3	63·1	60·3
6	8·8	6·8	7·3	6·6	6·4	...	6·3	4·4	2·2	63·8	61·7	60·1
7	7·9	6·5	8·1	6·7	5·5	4·9	6·8	5·3	1·6	63·9	62·0	59·5
8	8·6	7·0	7·4	6·3	6·1	4·6	5·7	5·1	2·4	63·2	61·7	60·0
9	8·4	7·6	5·9	7·4	6·2	4·0	5·7	5·2	2·2	63·8	61·1	60·3
10	9·2	6·8	7·1	6·9	5·0	5·7	5·1	4·3	3·1	63·4	61·4	59·7
11	7·8	7·6	7·1	6·6	4·7	4·4	5·2	5·5	2·1	63·5	60·7	60·2
12	7·8	7·4	7·5	6·9	4·6	4·9	5·4	3·6	2·9	62·8	60·6	60·6
13	8·0	7·5	7·1	5·9	5·5	4·6	4·5	4·1	2·2	63·0	...	58·5
14	8·2	8·5	7·6	6·8	5·0	4·7	4·9	4·0	1·9	62·4	61·4	59·9
15	8·9	8·4	7·9	6·1	4·2	4·5	4·7	2·6	...	61·9	60·4	60·0
16	8·9	8·5	7·2	6·2	4·6	5·4	4·5	3·5	2·5	61·6	60·3	60·8
17	8·9	7·5	7·7	6·0	5·2	4·3	6·5	3·9	3·5	62·6	61·1	60·0
18	8·8	7·2	6·3	5·3	4·5	4·9	3·9	4·2	3·3	62·6	59·5	59·8
19	8·7	8·0	7·1	6·2	5·6	6·0	5·5	4·0	4·4	62·0	61·3	60·2
20	8·6	8·4	7·0	5·4	5·6	5·9	...	...	4·9	61·5	61·7	59·9
21	8·7	6·6	7·8	6·1	4·7	5·3	5·6	0·7	5·5	61·5	61·6	60·8
22	8·8	6·9	6·5	6·3	6·1	6·5	5·1	1·8	6·6	61·4	61·5	60·3
23	8·8	...	6·5	5·1	4·9	5·4	4·1	3·3	5·2	61·7	61·8	59·3
24	8·5	...	6·9	5·6	5·5	5·4	4·6	4·1	4·4	62·6	61·1	59·0
25	8·4	...	6·4	6·3	4·0	5·3	4·8	3·9	4·1	61·4	60·4	59·3
26	8·0	6·7	6·7	5·9	4·7	5·7	4·7	5·8	3·3	61·3	61·1	59·9
27	8·5	6·7	7·1	5·6	5·0	6·1	4·3	2·7	1·4	61·6	61·4	60·0
28	8·8	...	7·1	5·8	4·5	4·7	5·6	1·5	0·7	61·5	61·2	59·9
29	8·6		7·4	5·8	4·5	4·9	5·6	0·9	1·6	61·2	61·3	60·1
30	8·3		...	5·0	4·3	4·5	5·2	1·0	3·1	59·2	60·8	59·1
31	8·2		...		5·6		5·4	1·5		60·9		59·7

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

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

1894.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	′	′	′	′	′	′	′	′	′	′	′	′
Midn.	0·0	0·0	1·5	3·7	3·2	4·3	3·1	3·5	0·9	0·8	0·0	0·6
1h	0·1	0·4	1·9	3·6	3·1	3·6	3·4	3·1	0·5	1·1	1·2	1·4
2	0·4	1·1	2·2	3·7	3·3	3·1	2·8	3·0	0·5	1·1	2·0	1·8
3	1·0	1·7	2·3	4·0	2·7	3·4	2·6	2·7	0·7	0·9	2·1	2·0
4	0·9	1·8	2·2	4·0	1·9	2·6	2·0	2·3	0·7	0·9	2·2	2·1
5	1·0	1·8	2·2	3·8	1·2	1·3	1·5	1·3	0·8	1·2	2·2	2·3
6	1·3	1·8	2·0	2·7	0·6	0·4	0·5	0·2	0·5	1·3	2·3	2·4
7	1·2	1·5	1·2	1·2	0·0	0·0	0·0	0·0	0·1	0·9	2·4	2·3
8	0·6	1·1	0·1	0·0	0·1	0·3	0·7	0·4	0·0	0·3	2·1	2·1
9	0·2	0·8	0·0	0·5	1·3	1·8	2·1	1·8	1·3	0·6	1·9	1·8
10	0·8	1·8	2·0	2·8	4·1	3·9	4·5	4·4	3·7	2·0	2·9	2·5
11	2·2	4·4	5·0	6·7	7·6	6·6	7·8	7·5	6·5	4·9	4·7	3·8
Noon.	4·0	6·7	8·5	10·5	10·5	9·5	10·7	10·5	8·3	6·7	6·2	4·9
13h	5·4	7·7	10·2	12·9	12·0	11·1	11·6	11·8	9·4	7·5	6·5	5·6
14	5·7	8·2	10·0	12·8	11·9	11·6	12·0	11·4	8·7	7·4	6·0	5·6
15	4·9	6·9	8·5	11·4	10·7	10·7	11·0	10·0	7·5	6·3	5·2	5·1
16	4·0	5·1	6·4	9·4	9·0	9·3	9·4	8·2	5·7	5·2	4·5	4·2
17	3·2	4·1	4·7	7·4	7·4	7·9	7·8	6·7	4·2	4·0	3·8	3·4
18	2·7	3·3	3·8	5·8	5·9	6·8	6·3	5·7	3·1	3·0	2·8	3·3
19	2·2	2·8	3·4	4·3	5·4	5·8	5·7	5·4	2·0	2·4	1·9	2·8
20	1·0	2·2	3·1	3·9	5·0	5·5	5·4	4·9	1·5	1·2	0·7	2·1
21	0·4	1·5	2·3	4·2	4·5	5·6	4·7	4·5	1·4	0·1	0·4	1·0
22	0·3	0·8	1·8	4·0	4·4	5·8	4·3	4·1	1·1	0·0	0·4	0·2
23	0·2	0·3	1·5	3·3	3·6	4·9	4·0	3·8	0·7	0·2	0·4	0·0
Means	1·82	2·83	3·62	5·27	4·97	5·24	5·16	4·88	2·91	2·50	2·70	2·64

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.)*

1894.

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	637	220	808	378	472	055	581	209	830	408	933	525	014	655	909	535	918	551	902	473	890	497	886	458
2	657	244	774	368	646	218	728	315	761	354	958	557	975	642	956	569	918	525	908	490	951	538	895	468
3	558	108	687	291	659	240	754	319	888	472	951	560	888	541	950	553	920	515	896	474	938	541	915	498
4	471	033	728	339	659	262	773	360	875	460	972	583	997	623	981	579	893	453	933	513	951	532	937	483
5	680	151	761	376	714	279	805	387	817	409	965	563	992	616	959	571	907	473	854	435	970	562	910	493
6	834	200	769	334	792	356	792	373	812	431	960	551	031	678	941	549	908	498	911	489	975	539	871	441
7	830	233	782	361	733	323	827	399	907	484	989	556	020	684	950	563	912	497	930	512	958	519	898	474
8	927	274	766	354	800	381	760	378	900	471	959	557	994	623	965	581	906	485	972	547	831	421	938	517
9	925	327	719	322	784	340	819	408	862	468	043	624	904	529	975	581	908	488	969	539	908	466	897	477
10	847	323	758	328	793	386	853	434	933	489	771	366	970	588	970	572	932	519	980	571	993	549	887	492
11	907	370	743	371	835	405	837	433	951	512	824	403	982	585	977	571	892	475	017	626	910	469	979	552
12	810	334	753	350	815	398	861	464	940	513	862	445	035	638	943	529	890	483	031	635	841	435	944	531
13	800	340	738	314	856	435	729	326	973	532	907	489	003	602	004	598	898	479	048	653	...	...	912	475
14	793	331	774	345	825	385	767	351	856	449	941	532	938	540	930	540	845	424	004	596	...	...	932	517
15	800	380	732	319	802	380	802	417	783	404	944	555	016	617	894	509	...	...	962	504	780	340	869	430
16	856	413	736	304	773	343	792	402	874	487	956	559	002	597	894	492	810	398	909	444	767	334	844	422
17	860	441	742	308	762	320	851	426	873	505	938	542	961	557	913	476	865	461	992	537	809	387	900	484
18	865	419	755	340	707	308	605	179	850	457	943	535	901	496	944	514	919	513	971	566	754	356	921	532
19	847	412	683	258	730	321	699	312	792	355	916	499	919	519	978	566	922	522	965	567	796	361	922	492
20	858	435	707	290	794	385	741	325	783	352	947	543	...	...	...	...	835	436	921	484	875	466	937	501
21	810	394	524	095	797	397	753	326	722	331	944	542	514	131	536	129	887	480	915	475	904	497	890	495
22	765	379	568	122	684	273	731	306	803	380	880	487	772	387	722	342	833	415	909	478	923	530	886	474
23	789	337	...	...	687	291	709	321	805	392	924	543	861	469	822	444	913	503	873	462	876	435	865	457
24	757	317	...	...	758	322	825	408	859	460	950	552	928	526	841	457	945	548	952	559	745	351	881	512
25	811	402	...	...	751	345	822	417	832	446	949	558	914	533	859	463	951	546	963	545	796	423	964	544
26	782	340	535	129	735	333	841	419	827	404	958	619	883	503	875	478	979	575	963	536	845	439	912	542
27	735	353	723	293	775	362	875	462	866	458	012	641	915	532	875	497	932	494	947	543	855	458	980	549
28	773	357	...	...	777	380	878	477	844	428	029	650	948	578	875	489	885	460	980	563	874	445	977	530
29	745	334			835	418	916	495	787	374	995	617	935	581	884	491	922	490	017	590	882	439	938	502
30	796	374			...	...	872	456	821	418	017	645	913	546	867	469	877	466	975	555	907	472	900	470
31	800	375			...	...			798	375			900	524	872	496			940	538			855	450

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.

1894.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d 1	67°·0	66°·5	67°·1	68°·9	66°·8	67°·4	69°·5	68°·9	69°·1	66°·6	68°·1	66°·6
2	67·2	67·5	66·6	67·2	67·5	67·7	70·5	68·3	68·1	67·0	67·2	66·6
3	65·7	67·9	67·0	66·3	67·1	68·1	69·9	67·9	67·5	66·8	67·9	67·1
4	66·2	68·2	67·9	67·2	67·1	68·2	68·8	67·7	66·1	66·9	66·9	65·5
5	62·2	68·4	66·3	67·0	67·4	67·7	68·7	68·2	66·3	67·0	67·4	67·0
6	57·1	66·3	66·2	66·9	68·6	67·4	69·7	68·1	67·3	66·8	66·2	66·5
7	58·9	66·9	67·3	66·6	66·8	66·4	70·4	68·3	67·1	67·0	66·1	66·8
8	56·2	67·2	66·9	68·5	66·6	67·7	68·9	68·4	66·9	66·7	67·3	66·9
9	58·9	67·9	65·9	67·3	68·0	66·9	68·8	68·0	66·9	66·5	66·0	66·9
10	62·4	66·5	67·5	67·0	65·9	67·5	68·5	67·8	67·2	67·4	65·9	67·9
11	61·8	68·9	66·5	67·6	66·1	66·9	67·9	67·5	67·0	68·1	66·1	66·6
12	64·5	67·6	67·0	67·9	66·6	67·1	67·9	67·2	67·5	67·9	67·5	67·2
13	65·2	66·7	66·9	67·6	66·0	67·0	67·7	67·5	67·0	68·0	...	66·2
14	65·2	66·5	66·1	67·1	67·5	67·4	67·8	68·2	66·9	67·4	...	67·1
15	66·9	67·2	66·8	68·4	68·6	68·2	67·8	68·4	...	65·3	66·1	66·1
16	65·9	66·4	66·5	68·2	68·3	67·9	67·5	67·6	67·3	65·0	66·4	66·8
17	67·0	66·3	66·0	66·7	69·1	67·9	67·6	66·2	67·6	65·5	66·9	67·1
18	65·8	67·1	67·8	66·7	68·0	67·4	67·6	66·5	67·5	67·6	67·8	68·2
19	66·3	66·7	67·4	68·3	66·2	67·0	67·8	67·3	67·7	67·8	66·3	66·5
20	66·8	67·0	67·4	67·1	66·4	67·6	...	...	67·8	66·2	67·4	66·2
21	67·1	66·5	67·8	66·6	68·1	67·7	68·5	67·5	67·5	66·1	67·4	68·0
22	68·3	65·8	67·3	66·7	66·8	68·0	68·4	68·6	67·0	66·5	68·0	67·2
23	65·6	...	67·9	68·2	67·2	68·5	68·1	68·7	67·3	67·3	66·1	67·4
24	66·1	...	66·3	67·1	67·8	67·8	67·7	68·4	67·9	68·0	68·0	69·0
25	67·4	...	67·5	67·5	68·3	68·1	68·6	67·9	67·5	67·0	68·9	66·9
26	66·0	67·5	67·7	66·8	66·8	70·3	68·6	67·8	67·6	66·6	67·5	69·0
27	68·5	66·5	67·2	67·2	67·4	69·0	68·4	68·7	66·2	67·6	67·9	66·5
28	67·1	...	67·9	67·7	67·1	68·6	69·0	68·4	66·7	67·0	66·6	65·8
29	67·3		67·0	66·9	67·2	68·6	69·6	68·0	66·4	66·6	66·0	66·3
30	66·8		...	67·1	67·6	68·9	69·1	67·8	67·3	66·9	66·3	66·5
31	66·7		...		66·8		68·8	68·8		67·7		67·5
Means	64°·97	67°·08	67°·02	67°·34	67°·28	67°·83	68°·60	67°·95	67°·25	66°·93	67°·01	66°·96

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.)*

1894.

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.	60	85	80	106	127	156	218	235	223	238	220	232	173	188	228	243	215	229	165	179	70	87	50	76
1h	58	79	68	89	127	149	213	228	212	224	213	223	180	192	226	241	209	221	173	185	78	90	51	73
2	60	76	70	87	127	144	197	209	209	219	205	213	173	183	217	229	205	215	180	187	81	90	53	70
3	77	89	76	88	134	148	190	200	211	219	217	225	169	176	218	228	205	212	182	189	93	100	66	80
4	102	112	83	92	139	151	187	195	200	205	213	218	158	163	216	224	202	207	187	192	102	109	78	90
5	104	111	100	107	148	158	201	206	174	179	192	195	145	148	197	202	196	201	190	192	111	116	89	101
6	102	109	127	132	155	162	209	205	150	155	162	165	128	131	156	161	181	183	183	185	121	126	98	108
7	105	110	124	129	142	149	165	170	99	102	114	117	88	91	103	106	145	147	154	156	117	119	93	103
8	90	92	94	99	98	103	107	112	46	49	47	47	47	47	50	53	86	86	112	112	77	79	86	93
9	53	55	48	50	41	46	46	49	12	15	0	0	18	18	4	4	20	20	45	45	35	37	58	63
10	16	16	11	13	1	6	3	6	0	0	0	0	0	0	0	0	0	0	0	0	4	4	21	23
11	0	0	0	0	0	0	0	0	22	20	37	35	7	7	22	22	22	22	1	1	0	0	0	0
Noon.	10	8	8	5	43	45	37	37	73	71	72	72	70	73	62	65	63	63	38	35	24	21	16	11
13h	32	32	24	26	86	93	95	95	121	121	124	124	111	116	119	124	110	110	75	72	38	35	40	38
14	50	52	63	68	134	144	141	144	167	167	183	186	163	168	163	171	143	145	110	112	45	47	58	60
15	60	67	89	94	165	177	185	190	211	214	241	246	210	217	203	211	165	172	129	134	53	58	56	61
16	65	75	106	113	164	176	226	231	259	262	288	293	230	237	222	232	182	187	140	145	56	61	58	63
17	67	77	117	124	169	183	246	251	308	313	323	331	259	269	261	271	199	206	154	159	57	66	69	76
18	82	96	98	105	183	195	270	275	333	338	347	355	285	297	290	302	207	214	173	180	61	70	65	79
19	89	108	86	98	182	196	280	285	325	330	343	351	282	294	296	308	217	227	191	200	63	75	57	76
20	88	109	85	99	189	203	267	272	320	325	318	328	279	291	289	301	214	224	183	192	65	77	47	69
21	82	103	81	95	183	200	246	254	292	297	288	298	256	271	281	296	205	217	182	194	84	96	45	69
22	69	92	78	97	171	193	239	249	259	267	270	282	229	246	265	282	213	225	171	183	95	109	45	67
23	77	105	94	120	162	191	230	245	236	251	253	268	211	228	257	274	207	221	164	178	83	100	48	74
Means corrected for Temperature.	77·4		84·8		140·3		181·0		190·9		200·2		168·8		189·6		164·7		142·0		73·8		67·6	

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

1894.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight.	65°·6	67°·8	67°·7	67°·8	67°·7	68°·1	68°·9	68°·2	67°·6	67°·3	67°·4	67°·6	67°·64
1h	65·4	67·6	67·4	67·7	67·6	68·0	68·8	68·2	67·5	67·2	67·2	67·4	67·50
2	65·2	67·4	67·2	67·6	67·5	67·9	68·7	68·1	67·4	67·0	67·1	67·2	67·36
3	65·0	67·2	67·1	67·5	67·4	67·9	68·6	68·0	67·3	67·0	67·0	67·1	67·26
4	64·9	67·1	67·0	67·4	67·3	67·8	68·5	67·9	67·2	66·9	67·0	67·0	67·17
5	64·8	67·0	66·9	67·3	67·3	67·7	68·4	67·8	67·2	66·8	66·9	67·0	67·09
6	64·8	66·9	66·8	67·3	67·3	67·7	68·4	67·8	67·1	66·8	66·9	66·9	67·06
7	64·7	66·9	66·8	67·3	67·2	67·7	68·4	67·7	67·1	66·8	66·8	66·9	67·02
8	64·6	66·9	66·7	67·3	67·2	67·6	68·3	67·7	67·0	66·7	66·8	66·8	66·97
9	64·6	66·8	66·7	67·2	67·2	67·6	68·3	67·6	67·0	66·7	66·8	66·7	66·93
10	64·5	66·8	66·7	67·2	67·1	67·6	68·3	67·6	67·0	66·7	66·7	66·6	66·90
11	64·5	66·7	66·5	67·1	67·0	67·5	68·3	67·6	67·0	66·7	66·7	66·5	66·84
Noon.	64·4	66·6	66·6	67·1	67·0	67·6	68·4	67·7	67·0	66·6	66·6	66·3	66·82
13h	64·5	66·8	66·8	67·1	67·1	67·6	68·5	67·8	67·0	66·7	66·6	66·4	66·91
14	64·6	66·9	66·9	67·2	67·1	67·7	68·5	67·9	67·1	66·8	66·8	66·6	67·01
15	64·8	66·9	67·0	67·3	67·2	67·8	68·6	67·9	67·2	66·9	66·9	66·7	67·10
16	64·9	67·0	67·0	67·3	67·2	67·8	68·6	68·0	67·2	66·9	66·9	66·7	67·13
17	64·9	67·0	67·1	67·3	67·3	67·9	68·7	68·0	67·3	66·9	67·1	66·8	67·19
18	65·1	67·0	67·0	67·3	67·3	67·9	68·8	68·1	67·3	67·0	67·1	67·1	67·25
19	65·3	67·2	67·1	67·3	67·3	67·9	68·8	68·1	67·4	67·1	67·2	67·3	67·33
20	65·4	67·3	67·1	67·3	67·3	68·0	68·8	68·1	67·4	67·1	67·2	67·4	67·37
21	65·4	67·3	67·2	67·4	67·3	68·0	68·9	68·2	67·5	67·2	67·2	67·5	67·42
22	65·5	67·5	67·4	67·5	67·4	68·1	69·0	68·3	67·5	67·2	67·3	67·4	67·51
23	65·7	67·8	67·7	67·7	67·7	68·2	69·0	68·3	67·6	67·3	67·4	67·6	67·67

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

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

1894.

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	897	150	880	146	959	216	888	094	815	085	778	031	883	104	912	152	894	124	751	011	717	960	582	842
2	910	169	902	151	898	155	851	109	826	086	770	025	897	099	912	161	862	113	743	999	719	971	577	828
3	860	154	939	178	905	157	808	084	795	057	791	026	942	159	898	156	841	112	731	999	728	970	593	834
4	861	145	916	155	919	142	814	080	790	044	805	044	897	135	876	134	817	102	725	978	721	·982	549	834
5	734	116	926	152	868	126	816	080	790	041	802	052	893	130	867	118	810	077	732	984	710	957	566	811
6	645	118	890	162	843	111	826	088	810	039	789	041	905	119	867	119	809	058	739	993	687	958	571	835
7	656	089	884	150	867	119	793	057	777	040	788	056	926	133	883	128	800	047	748	980	672	934	563	820
8	606	099	907	162	857	115	834	064	768	035	798	045	875	115	891	138	800	048	749	990	691	939	571	826
9	656	070	924	162	855	119	835	095	785	045	794	056	861	100	872	126	781	024	736	986	654	939	573	819
10	741	097	893	159	884	128	829	089	747	027	788	031	865	113	874	132	785	031	740	994	649	931	588	839
11	758	118	923	136	861	123	833	082	750	018	791	051	844	109	851	117	778	023	753	988	644	922	563	824
12	803	102	900	151	862	120	841	092	768	034	790	046	846	093	850	121	788	030	771	012	677	919	571	826
13	862	142	866	126	848	098	839	097	761	023	796	061	832	080	861	126	779	042	783	010	...	...	572	828
14	867	152	858	118	835	103	829	095	765	014	784	031	848	091	884	130	804	057	773	030	674	942	580	837
15	892	152	876	122	850	105	834	070	818	044	802	040	830	082	883	131	...	...	719	999	690	954	595	870
16	874	151	870	139	845	108	841	087	805	042	806	064	835	083	847	110	808	055	703	987	678	940	586	847
17	911	170	860	128	822	081	835	101	822	045	809	056	832	086	831	126	800	933	672	941	687	937	585	840
18	892	178	855	097	842	085	804	075	843	102	810	067	852	098	813	089	805	046	720	950	715	954	595	841
19	901	166	845	111	817	076	859	098	813	096	805	062	833	071	820	090	823	057	709	948	678	954	564	825
20	917	184	839	093	815	066	835	088	790	050	820	078	...	...	...	...	828	073	668	940	675	918	549	810
21	917	182	870	133	828	078	817	077	813	052	833	080	930	167	897	164	835	082	657	949	677	934	571	812
22	955	192	841	113	815	078	794	040	793	047	859	097	933	179	863	104	833	076	653	924	673	912	570	835
23	892	186	...	...	815	068	835	062	770	029	875	121	925	180	880	124	803	043	666	904	647	911	550	803
24	887	162	...	...	791	065	804	077	782	035	844	108	890	151	863	110	820	066	677	929	683	901	586	805
25	917	160	...	...	810	053	801	048	798	030	850	069	928	170	860	113	824	078	677	936	680	881	546	799
26	900	166	923	174	822	069	802	061	770	033	904	098	934	178	850	107	820	061	660	926	629	885	585	800
27	943	174	878	154	808	062	808	060	762	010	870	108	911	154	877	114	787	057	680	921	620	864	531	812
28	911	175	...	...	821	068	799	050	766	025	850	092	935	165	895	145	764	014	678	923	601	873	489	774
29	907	163			814	075	785	050	755	012	862	104	942	163	872	127	755	012	671	944	582	863	496	755
30	892	148			...	...	803	066	767	020	885	117	945	177	867	119	768	017	666	918	581	852	498	737
31	892	157			...	...			773	046			924	164	887	116			687	933			508	748

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.

1894.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d 1	67°·3	66°·6	67°·1	69°·5	66°·4	67°·2	68°·8	67°·8	68°·3	66°·9	67°·7	66°·9
2	66·9	67·5	67·0	67·0	66·9	67·1	69·7	67·5	67·4	67·1	67·3	67·3
3	65·3	67·9	67·3	66·2	66·8	68·1	69·0	67·0	66·4	66·5	67·7	67·8
4	65·8	67·9	68·7	66·6	67·2	67·9	67·9	67·0	65·7	67·2	66·8	65·7
5	61·1	68·5	67·0	66·7	67·4	67·4	68·0	67·4	66·5	67·3	67·5	67·6
6	56·8	66·3	66·5	66·8	68·4	67·3	69·1	67·3	67·4	67·2	66·4	66·7
7	58·8	66·6	67·3	66·7	66·7	66·5	69·4	67·6	67·5	68·2	66·8	67·0
8	55·9	67·2	67·0	68·3	66·5	67·5	67·9	67·5	67·5	67·8	67·5	67·2
9	59·6	67·9	66·7	66·9	66·9	66·8	67·9	67·2	67·7	67·4	65·7	67·5
10	62·4	66·6	67·7	66·9	65·9	67·7	67·5	67·0	67·6	67·2	65·8	67·4
11	62·2	69·1	66·8	67·4	66·5	66·9	66·7	66·6	67·6	68·1	66·1	66·9
12	65·1	67·3	67·0	67·3	66·6	67·1	67·5	66·4	67·8	67·8	67·7	67·2
13	66·0	66·9	67·4	67·0	66·8	66·6	67·4	66·6	66·8	68·5	...	67·1
14	65·7	66·9	66·5	66·6	67·4	67·5	67·7	67·6	67·3	67·1	66·5	67·0
15	66·9	67·6	67·2	68·0	68·5	68·0	67·3	67·5	...	65·9	66·7	66·2
16	66·1	66·4	66·7	67·5	68·0	67·0	67·5	66·8	67·5	65·7	66·8	66·8
17	66·9	66·5	66·9	66·6	68·6	67·5	67·2	65·2	68·2	66·5	67·4	67·2
18	65·7	67·8	67·7	66·4	67·0	67·1	67·5	66·2	67·8	68·3	67·9	67·6
19	66·6	66·6	67·0	67·9	65·8	67·1	67·9	66·4	68·1	67·9	66·1	66·9
20	66·5	67·2	67·3	67·3	66·9	67·0	...	...	67·6	66·3	67·7	66·9
21	66·7	66·7	67·4	66·9	67·9	67·5	68·0	66·6	67·5	65·4	67·0	67·8
22	68·0	66·3	66·8	67·6	67·2	68·0	67·6	67·8	67·7	66·4	67·9	66·6
23	65·3	...	67·2	68·5	66·9	67·6	67·2	67·7	67·9	68·0	66·7	67·3
24	66·2	...	66·2	66·3	67·2	66·7	66·8	67·5	67·5	67·3	68·9	68·8
25	67·7	...	67·7	67·5	68·2	68·8	67·7	67·2	67·2	67·0	69·7	67·3
26	66·6	67·3	67·5	67·0	66·7	70·0	67·7	67·1	67·8	66·6	67·1	69·0
27	68·3	67·6	67·2	67·3	67·5	68·0	67·7	68·0	66·5	67·8	67·6	65·9
28	66·7	...	67·5	67·4	67·0	67·7	68·3	67·4	67·4	67·6	66·4	65·7
29	67·1		66·8	66·7	67·1	67·8	68·7	67·1	67·1	66·3	65·9	67·0
30	67·1		...	66·7	67·2	68·2	68·3	67·3	67·4	67·3	66·4	67·9
31	66·6		...		66·3		67·9	68·4		67·5		67·9
Means	64°·96	67°·22	67°·14	67°·18	67°·11	67°·52	67°·93	67°·16	67°·40	67°·16	67°·09	67°·16

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.)*

1894.

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	8	33	6	50	29	53	40	62	49	37	26	21	10	41	27	35	24	35	22	16	6	22	2
1h	29	8	29	6	43	26	46	35	55	45	32	23	13	6	32	21	29	20	28	18	11	6	16	0
2	22	5	26	7	38	26	42	34	51	43	26	19	14	9	27	18	24	15	21	13	4	1	11	0
3	17	4	23	9	35	27	39	33	47	41	24	19	19	16	28	21	18	11	18	12	1	0	9	0
4	12	1	19	9	34	28	39	35	47	43	25	20	23	22	29	24	19	15	16	12	2	1	10	3
5	9	0	15	7	30	26	38	36	53	49	28	26	25	26	31	28	18	14	14	12	0	1	7	2
6	8	2	9	3	30	30	44	42	56	52	31	29	25	26	36	35	21	19	13	11	1	2	6	1
7	9	5	9	3	34	34	52	50	58	54	32	30	26	29	39	40	28	26	18	16	1	2	8	5
8	10	8	12	8	35	37	53	53	52	50	27	27	25	28	33	34	26	24	23	21	3	6	8	7
9	6	4	11	9	25	27	39	39	36	34	16	16	15	20	20	23	18	16	20	20	4	7	5	8
10	3	3	4	2	12	14	23	23	16	14	6	6	9	12	8	11	10	8	10	10	1	4	0	3
11	2	2	0	0	1	5	8	8	0	0	0	0	0	3	0	1	0	0	0	0	1	6	0	5
Noon.	0	0	0	0	0	0	0	0	1	1	2	0	1	0	1	0	4	2	2	0	4	11	0	7
13h	3	1	11	9	11	9	11	9	19	17	15	13	10	7	12	9	19	17	12	10	11	18	5	10
14	15	9	24	20	29	25	33	31	43	41	35	30	27	24	29	24	36	34	24	20	22	27	13	16
15	27	18	39	33	47	41	53	49	64	62	54	49	41	38	44	37	55	53	36	30	32	33	19	20
16	30	21	49	41	58	52	69	65	79	75	73	68	56	51	55	48	67	65	42	36	36	37	24	23
17	31	20	54	46	64	56	83	79	94	90	86	79	70	65	60	51	73	71	45	39	39	36	25	22
18	35	20	52	42	62	54	87	85	102	98	91	84	76	69	61	52	70	66	46	38	41	38	30	21
19	40	21	56	42	61	51	86	84	96	92	86	79	73	66	59	48	66	62	46	38	42	37	30	16
20	41	17	51	34	59	47	79	75	87	83	75	68	67	58	56	45	61	54	44	34	36	31	31	13
21	41	17	45	26	58	43	73	69	79	75	64	57	59	50	51	37	54	47	40	32	27	22	30	10
22	39	15	40	17	55	38	66	60	72	66	55	46	52	41	47	31	44	35	36	26	19	14	26	6
23	39	9	39	10	53	30	60	49	68	55	47	34	43	32	43	27	34	23	35	20	15	5	24	2
Means corrected for Temperature.	9·1		16·2		31·5		45·1		51·2		35·3		29·5		28·8		30·0		20·4		14·6		8·4	

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

1894.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight.	65°·7	68°·0	67°·8	67°·6	67°·5	67°·8	68°·3	67°·5	67°·7	67°·5	67°·5	67°·8	67°·56
1h	65·4	67·8	67·6	67·5	67·4	67·7	68·1	67·4	67·6	67·4	67·3	67·6	67·40
2	65·2	67·6	67·4	67·4	67·3	67·6	68·0	67·3	67·6	67·3	67·2	67·4	67·27
3	65·0	67·4	67·2	67·3	67·2	67·5	67·9	67·2	67·5	67·2	67·1	67·3	67·15
4	64·9	67·2	67·1	67·2	67·1	67·5	67·8	67·1	67·4	67·1	67·1	67·2	67·06
5	64·8	67·1	67·0	67·1	67·1	67·4	67·7	67·0	67·4	67·0	67·0	67·1	66·98
6	64·7	67·0	66·8	67·1	67·1	67·4	67·7	66·9	67·3	67·0	67·0	67·1	66·93
7	64·6	67·0	66·8	67·1	67·1	67·4	67·6	66·8	67·3	67·0	67·0	67·0	66·89
8	64·5	66·9	66·7	67·0	67·0	67·3	67·6	66·8	67·3	67·0	66·9	66·9	66·83
9	64·5	66·8	66·7	67·0	67·0	67·3	67·5	66·7	67·3	66·9	66·9	66·7	66·77
10	64·4	66·8	66·7	67·0	67·0	67·3	67·6	66·7	67·3	66·9	66·9	66·7	66·77
11	64·4	66·7	66·6	67·0	66·9	67·3	67·6	66·8	67·2	66·9	66·8	66·6	66·73
Noon.	64·4	66·7	66·8	67·0	66·9	67·4	67·8	66·9	67·3	67·0	66·7	66·5	66·78
13h	64·5	66·8	66·9	67·1	67·0	67·4	67·9	67·0	67·3	67·0	66·7	66·6	66·85
14	64·7	66·9	67·0	67·1	67·0	67·5	67·9	67·1	67·3	67·1	66·8	66·7	66·93
15	64·8	67·0	67·1	67·2	67·0	67·5	67·9	67·2	67·3	67·2	67·0	66·8	67·00
16	64·8	67·1	67·1	67·2	67·1	67·5	68·0	67·2	67·3	67·2	67·0	66·9	67·03
17	64·9	67·1	67·2	67·2	67·1	67·6	68·0	67·3	67·3	67·2	67·2	67·0	67·09
18	65·1	67·2	67·2	67·1	67·1	67·6	68·1	67·3	67·4	67·3	67·2	67·3	67·16
19	65·3	67·4	67·3	67·1	67·1	67·6	68·1	67·4	67·4	67·3	67·3	67·5	67·23
20	65·5	67·5	67·4	67·2	67·1	67·6	68·2	67·4	67·5	67·4	67·3	67·7	67·32
21	65·5	67·6	67·5	67·2	67·1	67·6	68·2	67·5	67·5	67·3	67·3	67·8	67·34
22	65·5	67·8	67·6	67·3	67·2	67·7	68·3	67·6	67·6	67·4	67·3	67·8	67·43
23	65·8	68·1	67·9	67·5	67·5	67·9	68·3	67·6	67·7	67·6	67·5	67·9	67·61

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, 1894.	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	17° 8'·5	318	1148	3644	582	5016
February	17. 7·4	304	1139	3585	556	4977
March	17. 7·1	332	1102	3569	607	4815
April	17. 6·3	377	1077	3527	689	4706
May	17. 5·2	435	1042	3468	796	4553
June	17. 5·1	546	1065	3463	998	4653
July	17. 5·3	555	1129	3474	1015	4933
August	17. 3·8	507	1125	3394	927	4915
September	17. 3·1	489	1057	3357	894	4618
October	17. 2·3	532	965	3314	973	4216
November	17. 1·4	457	927	3266	836	4050
December	16. 59·9	493	816	3186	902	3565
Means	17° 4'·6	......	......	3437	......	......
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 1·8287 and 0·18287 respectively for the year, and of whole Vertical Force (applicable to column 6) are 4·3692 and 0·43692 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 1894.

(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.	1'·15	165·5	18·9	61·2	302·6	82·6
1h	1·30	160·5	16·0	69·2	293·5	69·9
2	1·43	154·5	14·0	76·1	282·5	61·2
3	1·52	157·1	14·3	80·9	287·3	62·5
4	1·32	157·5	16·0	70·2	288·0	69·9
5	1·07	154·0	17·1	56·9	281·6	74·7
6	0·68	146·1	19·2	36·2	267·2	83·9
7	0·25	119·2	22·7	13·3	218·0	99·2
8	0·00	75·3	23·4	0·0	137·7	102·2
9	0·53	27·8	16·8	28·2	50·8	73·4
10	2·30	0·0	7·4	122·3	0·0	32·3
11	4·99	3·2	0·7	265·4	5·9	3·1
Noon.	7·43	36·5	0·0	395·2	66·7	0·0
13h	8·66	76·5	8·9	460·7	139·9	38·9
14	8·63	116·3	23·3	459·1	212·7	101·8
15	7·53	147·7	36·8	400·6	270·1	160·8
16	6·05	167·2	46·7	321·8	305·8	204·0
17	4·73	188·1	52·7	251·6	344·0	230·3
18	3·72	203·1	53·8	197·9	371·4	235·1
19	3·03	206·6	51·2	161·2	377·8	223·7
20	2·39	201·8	44·8	127·1	369·0	195·7
21	1·90	193·5	38·6	101·1	353·9	168·7
22	1·62	185·3	31·1	86·2	338·9	135·9
23	1·26	182·2	22·9	67·0	333·2	100·1
Means . . .	3'·06	134·4	24·9	162·9	245·8	108·7
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 1·8287 and 0·18287 respectively, and of whole Vertical Force (applicable to column 6) are 4·3692 and 0·43692 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.)

1894.

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	12·4	101	7·2	112	11·2	584	8·8	332	16·6	332	11·8	393	12·9	417	12·6	320	11·1	289	12·2	371	9·4	341	5·5	61
2	5·8	196	8·3	251	8·7	233	12·7	417	13·5	354	9·5	328	19·0	478	13·2	330	12·5	426	11·9	425	8·0	220	6·0	225
3	10·9	490	10·3	176	8·1	177	11·0	216	11·9	299	15·7	435	13·1	308	12·6	327	10·6	260	15·0	300	7·0	212	6·0	183
4	19·0	324	8·4	159	9·4	299	15·0	209	16·1	293	...	355	14·7	382	16·7	419	10·2	325	11·7	297	5·9	194	4·5	144
5	9·3	282	10·2	137	7·3	179	13·8	282	14·2	329	...	354	13·9	307	16·5	387	15·0	376	9·5	442	7·0	257	9·7	248
6	11·8	176	12·2	186	7·9	145	19·0	245	14·1	304	...	343	12·9	328	15·2	305	11·7	367	10·0	325	8·3	247	14·4	179
7	6·7	220	9·9	148	8·0	162	17·4	351	9·6	267	14·7	395	15·0	293	15·0	306	11·0	298	8·4	367	8·9	183	11·0	218
8	5·6	184	9·2	189	11·5	330	15·4	334	9·9	277	9·3	385	18·8	298	10·6	287	9·8	269	10·8	272	7·0	293	9·7	207
9	5·4	88	8·7	203	14·9	266	17·2	416	9·9	233	15·1	398	16·5	459	16·6	337	10·1	392	8·2	283	7·0	162	13·1	166
10	6·8	86	10·9	179	11·2	196	13·8	307	10·2	282	20·7	1105	11·6	357	13·0	332	10·2	332	6·2	297	3·7	133	10·0	158
11	9·9	236	10·0	179	10·9	92	15·0	310	8·9	336	11·7	702	13·6	410	17·0	362	10·6	410	8·5	292	7·5	189	4·7	148
12	10·3	340	10·9	150	9·7	139	15·0	315	11·2	298	10·6	429	13·3	297	16·0	349	10·0	352	7·8	205	8·2	185	5·5	257
13	7·9	170	7·0	127	10·3	175	13·0	582	8·5	383	8·6	340	16·7	430	13·2	425	8·2	272	8·0	226	...	...	14·8	356
14	6·4	218	6·3	200	11·5	245	11·5	320	15·3	610	14·5	452	12·3	267	13·7	389	21·9	748	10·8	430	28·3	...	6·5	177
15	5·8	132	9·3	175	11·5	177	11·0	245	13·7	508	12·9	367	17·7	245	13·4	488	...	...	9·4	285	9·5	159	11·8	604
16	6·1	121	11·5	205	12·6	198	10·6	297	14·8	498	10·6	344	11·7	290	11·0	332	9·4	403	19·4	350	11·4	315	8·0	210
17	6·0	157	11·3	249	10·5	145	27·8	618	11·9	419	18·3	502	12·8	414	12·2	332	10·0	320	8·6	308	9·0	328	5·6	168
18	5·9	117	10·4	186	13·7	303	22·7	531	15·5	430	14·6	368	14·8	482	12·3	325	14·0	270	11·8	357	12·1	554	5·3	157
19	8·1	177	13·4	355	10·0	299	12·6	421	15·8	363	17·2	482	24·0	582	13·4	322	20·5	440	9·3	332	11·4	190	6·3	175
20	6·3	137	11·2	243	11·3	255	12·1	342	16·0	405	10·6	316	...	...	...	...	13·5	438	7·3	188	6·0	253	7·1	105
21	6·7	243	21·8	627	20·5	228	14·2	339	12·9	463	21·8	439	22·5	863	13·9	487	8·5	347	8·0	206	3·4	174	9·6	234
22	7·9	315	12·9	538	20·8	525	13·3	389	16·2	570	11·5	584	15·0	508	13·3	395	9·1	374	9·3	151	5·2	191	9·4	239
23	5·7	157	...	...	13·5	566	12·8	330	14·3	438	12·5	450	9·4	398	12·0	350	7·3	368	6·0	235	14·4	524	8·1	221
24	7·8	170	...	...	12·1	369	14·0	346	12·5	412	13·1	277	10·3	355	11·3	428	11·9	276	8·2	210	12·1	175	10·0	195
25	5·1	152	...	...	18·7	439	13·7	381	13·7	373	11·5	381	13·9	310	7·3	388	10·4	459	12·5	230	9·8	156	4·2	72
26	14·8	287	17·6	286	15·2	304	11·4	335	15·3	423	10·0	425	6·2	252	9·2	366	8·4	155	9·5	352	6·2	113	4·5	138
27	6·4	155	8·7	175	13·4	313	11·0	247	14·5	394	9·0	302	9·7	234	8·0	257	14·0	251	16·2	172	6·1	147	4·5	180
28	6·3	101	...	...	13·0	318	11·8	290	16·2	492	9·4	284	14·1	350	11·2	303	13·5	200	9·3	160	10·6	140	5·8	96
29	6·3	81			13·6	213	13·6	342	21·8	472	10·2	336	11·8	255	10·2	340	10·2	290	7·8	181	7·9	29	5·7	136
30	9·2	164			...	...	15·2	520	12·4	389	13·4	354	12·0	190	10·9	357	14·7	245	13·7	319	7·7	109	7·0	112
31	5·3	118			...	...			16·7	375			12·0	314	11·5	349			13·5	275			3·8	89
Means.....	8·0	190	10·7	226	12·1	272	14·2	354	13·7	388	12·9	421	14·1	369	12·8	356	11·7	343	10·3	285	8·9	220	7·7	189

The mean of the twelve monthly values is, for Declination 11′·42, and for Horizontal Force 301·1.

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, 1894.	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	5·7	112	21	35·7	634	152
February	8·2	132	46	47·4	692	309
March	10·2	203	56	56·2	1102	275
April	12·9	285	85	69·6	1669	443
May	12·0	338	98	71·4	2059	477
June	11·6	355	84	66·6	2122	492
July	12·0	297	69	72·3	1789	412
August	11·8	308	52	66·6	1998	282
September	9·4	229	71	61·8	1448	433
October	7·5	200	39	50·0	1249	222
November	6·5	126	38	36·6	678	297
December	5·6	108	23	29·7	443	148
Means	9′·45	224·4	56·8	55′·32	1323·6	328·5

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, 1894.	m	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4
	DECLINATION WEST.								
	′	′	′	′	′	′	′	′	′
January	1·82	− 1·70	− 1·14	+ 0·05	+ 1·20	− 0·25	− 0·53	+ 0·20	+ 0·29
February	2·83	− 2·44	− 1·40	+ 0·39	+ 1·48	− 0·72	− 0·71	+ 0·11	+ 0·35
March	3·62	− 2·40	− 1·97	+ 1·04	+ 2·03	− 0·93	− 0·99	+ 0·32	+ 0·45
April	5·27	− 2·45	− 2·68	+ 1·43	+ 2·79	− 0·94	− 1·21	+ 0·32	+ 0·07
May	4·97	− 2·64	− 3·38	+ 1·81	+ 1·83	− 0·85	− 0·56	+ 0·11	+ 0·12
June	5·24	− 1·94	− 3·60	+ 1·64	+ 1·63	− 0·60	− 0·60	− 0·08	− 0·09
July	5·16	− 2·74	− 3·44	+ 1·69	+ 1·67	− 0·74	− 0·47	+ 0·05	+ 0·02
August	4·88	− 2·54	− 3·11	+ 1·89	+ 1·59	− 0·93	− 0·46	+ 0·11	+ 0·12
September	2·91	− 3·15	− 1·82	+ 1·44	+ 1·36	− 0·71	− 0·53	+ 0·25	− 0·05
October	2·50	− 2·50	− 1·37	+ 0·76	+ 1·57	− 0·44	− 0·35	+ 0·50	+ 0·25
November	2·70	− 2·23	− 0·37	+ 0·35	+ 1·22	− 0·38	− 0·17	+ 0·24	+ 0·12
December	2·64	− 1·77	− 0·56	− 0·03	+ 1·01	− 0·39	− 0·12	+ 0·15	+ 0·38
For the Year	3·06	− 2·37	− 2·07	+ 1·04	+ 1·61	− 0·66	− 0·56	+ 0·19	+ 0·17
	HORIZONTAL FORCE.								
January	77·4	+ 32·9	+ 0·5	− 29·4	− 0·7	+ 4·9	− 12·5	− 1·4	+ 5·1
February	84·8	+ 31·0	− 5·1	− 32·3	+ 6·8	+ 21·5	− 14·9	+ 2·8	+ 2·1
March	140·3	+ 53·6	− 39·1	− 37·3	+ 16·5	+ 8·9	− 27·3	− 1·1	+ 8·9
April	181·0	+ 88·5	− 54·2	− 50·6	+ 20·7	+ 11·7	− 17·7	+ 7·5	+ 9·5
May	190·9	+ 91·9	− 96·5	− 45·4	+ 31·0	− 7·1	− 5·2	+ 6·7	+ 2·9
June	200·2	+ 89·4	− 103·6	− 51·4	+ 36·9	− 6·4	− 10·3	+ 7·8	− 2·4
July	168·8	+ 73·7	− 92·9	− 38·5	+ 25·1	− 4·4	− 12·2	+ 1·0	+ 6·1
August	189·6	+ 100·1	− 80·5	− 34·6	+ 32·8	− 9·5	− 15·1	+ 5·0	+ 1·9
September	164·7	+ 82·3	− 35·6	− 28·6	+ 33·1	+ 0·6	− 19·8	+ 8·4	+ 7·7
October	142·0	+ 72·9	− 14·3	− 38·8	+ 20·8	+ 1·9	− 18·1	+ 2·3	+ 12·0
November	73·8	+ 36·7	+ 11·3	− 21·4	+ 5·4	+ 4·5	− 19·0	+ 2·1	+ 3·4
December	67·6	+ 19·7	+ 8·8	− 24·6	+ 4·4	+ 10·2	− 9·8	+ 0·3	+ 6·4
For the Year	134·4	+ 64·4	− 41·8	− 36·1	+ 19·4	+ 3·1	− 15·2	+ 3·4	+ 5·3
	VERTICAL FORCE.								
January	9·1	+ 1·8	− 8·8	− 3·7	− 0·8	+ 2·7	+ 0·7	− 1·6	+ 0·2
February	16·2	+ 0·5	− 17·6	− 10·4	+ 2·3	+ 1·8	+ 2·3	− 2·8	− 0·2
March	31·5	+ 6·9	− 11·1	− 14·1	− 0·6	+ 6·7	+ 0·6	− 3·3	+ 0·4
April	45·1	+ 11·9	− 18·0	− 21·3	− 6·8	+ 7·6	+ 1·7	− 3·0	+ 1·2
May	51·2	+ 15·7	− 21·2	− 24·1	− 1·3	+ 7·8	− 0·9	− 1·5	+ 2·4
June	35·3	+ 8·1	− 26·0	− 21·1	− 1·2	+ 4·9	+ 0·7	− 0·2	+ 0·7
July	29·5	+ 4·6	− 19·5	− 20·1	− 4·8	+ 2·0	− 0·4	− 2·0	− 1·8
August	28·8	+ 5·3	− 9·6	− 15·7	− 1·0	+ 6·6	− 1·5	− 0·8	+ 1·3
September	30·0	+ 2·6	− 23·8	− 15·3	+ 1·1	+ 6·9	+ 0·1	− 2·0	+ 1·5
October	20·4	+ 3·8	− 11·8	− 7·8	− 1·4	+ 5·1	+ 0·7	− 2·7	+ 1·1
November	14·6	− 4·1	− 17·6	− 6·1	+ 1·6	+ 0·8	+ 0·6	− 0·8	+ 1·7
December	8·4	− 4·2	− 8·3	− 4·0	+ 1·4	+ 1·6	+ 0·2	− 1·0	+ 0·1
For the Year	24·9	+ 4·4	− 16·1	− 13·7	− 1·0	+ 4·5	+ 0·4	− 1·8	+ 0·7

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

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

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

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

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

Month, 1894.	m	c_1	α	α'	c_2	β	β'	c_3	γ	γ'	c_4	δ	δ'
						DECLINATION WEST.							
	′	′	° ′	° ′	′	° ′	° ′	′	° ′	° ′	′	° ′	° ′
January	1·82	2·04	236. 7	238. 31	1·20	2. 25	7. 13	0·59	205. 13	212. 25	0·35	34. 45	44. 21
February	2·83	2·81	240. 5	243. 34	1·53	14. 51	21. 49	1·01	225. 36	236. 3	0·37	17. 40	31. 36
March	3·62	3·10	230. 36	232. 45	2·28	27. 2	31. 20	1·36	223. 14	229. 41	0·56	35. 11	43. 47
April	5·27	3·63	222. 27	222. 28	3·13	27. 13	27. 15	1·53	218. 0	218. 3	0·33	77. 25	77. 29
May	4·97	4·29	217. 59	217. 7	2·57	44. 39	42. 55	1·02	236. 33	233. 57	0·16	43. 5	39. 37
June	5·24	4·09	208. 15	208. 21	2·31	45. 3	45. 15	0·85	224. 55	225. 13	0·12	220. 3	220. 27
July	5·16	4·40	218. 35	219. 57	2·37	45. 24	48. 8	0·87	237. 42	241. 48	0·05	64. 42	70. 10
August	4·88	4·02	219. 12	220. 8	2·47	49. 57	51. 49	1·04	243. 22	246. 10	0·17	42. 34	46. 18
September	2·91	3·64	240. 1	238. 45	1·98	46. 38	44. 6	0·88	233. 22	229. 34	0·26	101. 19	96. 15
October	2·50	2·85	241. 21	237. 51	1·74	25. 56	18. 56	0·56	231. 12	220. 42	0·56	63. 1	49. 1
November	2·70	2·26	260. 29	256. 49	1·27	15. 54	8. 34	0·42	245. 38	234. 38	0·27	62. 43	48. 3
December	2·64	1·86	252. 24	251. 24	1·01	358. 6	356. 6	0·41	253. 32	250. 32	0·40	21. 48	17. 48
For the Year	3·06	3·15	228. 55	228. 55	1·92	32. 46	32. 46	0·86	229. 34	229. 34	0·25	48. 11	48. 11
						HORIZONTAL FORCE.							
January	77·4	32·9	89. 10	91. 34	29·4	268. 34	273. 22	13·4	158. 44	165. 56	5·2	344. 20	353. 56
February	84·8	31·4	99. 20	102. 49	33·1	281. 52	288. 50	26·1	124. 41	135. 8	3·5	53. 9	67. 5
March	140·3	66·3	126. 5	128. 14	40·8	293. 49	298. 7	28·7	161. 59	168. 26	9·0	352. 47	1. 23
April	181·0	103·8	121. 29	121. 30	54·6	292. 15	292. 17	21·2	146. 35	146. 38	12·1	38. 13	38. 17
May	190·9	133·2	136. 24	135. 32	54·9	304. 18	302. 34	8·8	233. 47	231. 11	7·3	66. 37	63. 9
June	200·2	136·8	139. 13	139. 19	63·3	305. 43	305. 55	12·1	211. 42	212. 0	8·2	107. 0	107. 24
July	168·8	118·6	141. 36	142. 58	45·9	303. 6	305. 50	13·0	199. 53	203. 59	6·1	9. 22	14. 50
August	189·6	128·5	128. 47	129. 43	47·6	313. 30	315. 22	17·8	212. 4	214. 52	5·3	69. 27	73. 11
September	164·7	89·6	113. 22	112. 6	43·8	319. 7	316. 35	19·8	178. 24	174. 36	11·4	47. 44	42. 40
October	142·0	74·3	101. 5	97. 35	44·0	298. 12	291. 12	18·2	173. 51	163. 21	12·2	10. 38	356. 38
November	73·8	38·4	72. 53	69. 13	22·1	284. 5	276. 45	19·5	166. 43	155. 43	4·0	32. 4	17. 24
December	67·6	21·5	65. 54	64. 54	25·0	280. 13	278. 13	14·2	133. 53	130. 53	6·4	3. 0	359. 0
For the Year	134·4	76·7	122. 58	122. 58	40·9	298. 16	298. 16	15·5	168. 36	168. 36	6·3	33. 5	33. 5
						VERTICAL FORCE.							
January	9·1	8·9	168. 35	170. 59	3·7	258. 19	263. 7	2·8	75. 28	82. 40	1·6	277. 36	287. 12
February	16·2	17·6	178. 12	181. 41	10·7	282. 21	289. 19	3·0	38. 2	48. 29	2·8	265. 34	279. 30
March	31·5	13·1	148. 24	150. 33	14·1	267. 22	271. 40	6·7	84. 45	91. 12	3·4	277. 24	286. 0
April	45·1	21·6	146. 29	146. 30	22·3	252. 14	252. 16	7·8	77. 32	77. 35	3·2	291. 7	291. 11
May	51·2	26·4	143. 25	142. 33	24·1	266. 56	265. 12	7·9	96. 45	94. 9	2·8	327. 6	323. 38
June	35·3	27·3	162. 46	162. 52	21·1	266. 40	266. 52	4·9	81. 27	81. 45	0·7	347. 3	347. 27
July	29·5	20·0	166. 49	168. 11	20·7	256. 34	259. 18	2·1	101. 56	106. 2	2·7	228. 36	234. 4
August	28·8	11·0	150. 54	151. 50	15·7	266. 28	268. 20	6·8	102. 59	105. 47	1·5	330. 1	333. 45
September	30·0	24·0	173. 51	172. 35	15·9	274. 2	271. 30	6·9	89. 19	85. 31	2·5	306. 36	301. 32
October	20·4	12·4	162. 8	158. 38	7·9	260. 10	253. 10	5·1	81. 39	71. 9	2·9	291. 48	277. 48
November	14·6	18·1	193. 15	189. 35	6·3	284. 35	277. 15	1·0	50. 37	39. 37	1·9	334. 19	319. 39
December	8·4	9·3	207. 8	206. 8	4·2	288. 52	286. 52	1·6	82. 46	79. 46	1·0	274. 28	270. 28
For the Year	24·9	16·7	164. 45	164. 45	13·7	265. 59	265. 59	4·6	84. 50	84. 50	1·9	291. 2	291. 2

TABLE XVII.—SEPARATE RESULTS of OBSERVATIONS of MAGNETIC DIP made in the Year 1894.

Greenwich Civil Time, 1894.	Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1894.	Needle.	Magnetic Dip.	Observer.	Greenwich Civil Time, 1894.	Needle.	Magnetic Dip.	Observer.
d h		° ′ ″		d h		° ′ ″		d h		° ′ ″	
Jan. 3.14	C 1	67.17.32	C	May 3.13	C 2	67.18.11	C	Sept. 3.15	B 1	67.17. 3	C
5.15	D 1	67.18.53	C	4.16	B 2	67.14.25	N	4.14	B 2	67.16.36	C
8.14	D 2	67.17.57	C	8.16	B 1	67.14.20	N	7.14	C 2	67.17. 2	C
10.12	C 2	67.17. 6	C	9.15	C 1	67.15.43	N	10.12	D 1	67.20.14	C
13.11	B 1	67.17.28	C	11.15	D 2	67.16.31	N	12.15	D 2	67.17.47	C
15.13	B 2	67.14. 6	C	15.11	D 1	67.19. 7	C	14.12	C 1	67.18. 5	C
17.12	B 2	67.14.42	C	17.16	D 1	67.17.36	N	17.16	C 1	67.16.56	N
18.16	B 1	67.15.15	N	18.12	D 2	67.18.21	C	20.15	D 2	67.19.25	N
23.16	C 2	67.16.35	N	22.15	C 1	67.15.54	C	21.12	D 1	67.20.46	C
24.16	D 2	67.19.36	N	24.14	B 1	67.15.59	C	24.15	C 2	67.18.41	N
26.14	D 1	67.18.20	C	28.14	B 2	67.14.22	C	26.15	B 2	67.17.39	N
30.15	C 1	67.16. 1	N	30.16	C 2	67.17. 8	N	27.16	B 1	67.16.45	N
Feb. 2.16	C 2	67.17.15	C	June 1.14	B 1	67.14.35	C	Oct. 3.14	C 1	67.15.31	C
3.12	B 2	67.15.40	C	5.15	B 2	67.14.57	C	6.12	D 1	67.17.28	C
7.14	B 1	67.17.35	C	8.14	D 1	67.17.24	C	8.14	D 2	67.17.36	C
9.14	C 1	67.16.59	C	13.14	C 2	67.18.44	N	10.15	C 2	67.16.34	C
13.12	D 2	67.19. 5	C	13.16	D 2	67.17.29	N	12.14	B 1	67.17.29	C
13.15	D 1	67.18.55	C	14.16	C 1	67.15. 2	N	15.11	B 2	67.16.46	C
17.11	D 1	67.18.10	C	16.12	C 1	67.16.56	C	16.15	B 2	67.19.31	N
17.12	D 2	67.18.33	C	18.13	C 2	67.18.46	C	20.12	B 1	67.17.55	N
20.16	C 1	67.18.23	N	18.14	D 2	67.17.37	C	23.15	C 2	67.17.53	N
24.10	B 1	67.18.29	C	22.16	D 1	67.18.38	N	24.15	D 2	67.17.55	N
27.13	B 2	67.15.59	C	27.16	B 2	67.16.22	N	27.12	D 1	67.17.55	C
28.13	C 2	67.18.35	C	29.15	B 1	67.15.26	N	29.15	C 1	67.16.25	N
Mar. 3.11	B 1	67.17.52	C	July 2.16	C 1	67.15.27	N	Nov. 2.14	C 2	67.17. 1	N
5.15	B 2	67.14.30	C	3.13	D 1	67.19.12	C	6.15	B 2	67.15.18	N
7.14	C 2	67.18.16	C	6.13	D 2	67.18.53	C	8.16	B 1	67.17.50	N
10.12	D 1	67.18.58	C	10.13	C 2	67.16.38	C	10.12	C 1	67.15.53	N
13.14	D 2	67.18.46	C	13.12	B 1	67.16.45	C	15.14	D 2	67.19.20	N
14.12	C 1	67.18.27	C	16.12	B 2	67.15.45	C	15.15	D 1	67.19.18	N
17.12	C 1	67.18.24	C	19.16	B 2	67.15.12	N	17.12	D 1	67.15.50	C
19.16	D 2	67.19.11	N	23.16	C 2	67.19. 4	N	21.11	D 2	67.17.47	C
21.16	D 1	67.19.28	N	24.16	B 1	67.18.44	N	21.12	C 1	67.16. 1	C
24.12	C 2	67.17.55	N	25.13	D 2	67.21.30	N	22.15	B 1	67.16.28	C
27.15	B 2	67.15.32	N	27.16	D 1	67.20.38	N	24.12	B 2	67.17.14	C
28.15	B 1	67.15.15	C	31.16	C 1	67.16. 8	N	28.13	C 2	67.16. 1	C
Apr. 3.15	C 1	67.18.59	C	Aug. 3.14	C 2	67.16.49	C	Dec. 3.13	B 1	67.14.28	N
4.15	D 1	67.19.54	C	4.12	B 2	67.15.15	C	4.15	B 2	67.14.51	N
7.12	D 2	67.19. 8	C	7.15	B 1	67.16.32	C	6.15	C 2	67.17. 2	N
10.14	C 2	67.18.17	C	10.14	C 1	67.15.21	N	12.12	D 1	67.17.45	C
12.12	B 1	67.15.31	C	11.12	D 2	67.18.46	C	12.14	D 2	67.18.46	C
12.15	B 2	67.14.35	N	15.15	D 1	67.18.42	C	15.12	C 1	67.15.22	C
17.12	B 2	67.14.35	C	17.16	D 1	67.18.25	N	17.15	C 1	67.15.11	N
20.15	B 1	67.16.16	C	21.16	D 2	67.23.12	N	19.14	D 2	67.16.53	N
21.12	C 2	67.19. 7	N	22.12	C 1	67.19. 5	C	20.15	D 1	67.17.30	N
23.16	D 2	67.19.53	N	24.14	B 1	67.17.28	C	24.15	C 2	67.14.59	C
26.15	D 1	67.19.25	C	28.15	B 2	67.16. 0	C	29.14	B 2	67.14.48	C
28.12	C 1	67.16.51	N	29.15	C 2	67.18.19	C	29.15	B 1	67.15.30	C

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 1894.

Monthly Means of Magnetic Dip.

Month, 1894.	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. 16. 22	2	67. 14. 24	2	67. 16. 47	2
February	67. 18. 2	2	67. 15. 49	2	67. 17. 41	2
March	67. 16. 33	2	67. 15. 1	2	67. 18. 25	2
April	67. 15. 54	2	67. 14. 35	2	67. 17. 55	2
May	67. 15. 10	2	67. 14. 23	2	67. 15. 48	2
June	67. 15. 1	2	67. 15. 39	2	67. 15. 59	2
July	67. 17. 44	2	67. 15. 29	2	67. 15. 47	2
August	67. 17. 0	2	67. 15. 37	2	67. 17. 13	2
September	67. 16. 54	2	67. 17. 8	2	67. 17. 30	2
October	67. 17. 42	2	67. 18. 8	2	67. 15. 58	2
November	67. 17. 9	2	67. 16. 16	2	67. 15. 57	2
December	67. 14. 59	2	67. 14. 49	2	67. 15. 16	2
Means	67. 16. 33	Sum 24	67. 15. 37	Sum 24	67. 16. 41	Sum 24

Month, 1894.	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. 16. 50	2	67. 18. 37	2	67. 18. 46	2
February	67. 17. 55	2	67. 18. 33	2	67. 18. 49	2
March	67. 18. 6	2	67. 19. 13	2	67. 18. 59	2
April	67. 18. 42	2	67. 19. 39	2	67. 19. 30	2
May	67. 17. 39	2	67. 18. 21	2	67. 17. 26	2
June	67. 18. 45	2	67. 18. 1	2	67. 17. 33	2
July	67. 17. 51	2	67. 19. 55	2	67. 20. 12	2
August	67. 17. 34	2	67. 18. 33	2	67. 20. 59	2
September	67. 17. 52	2	67. 20. 30	2	67. 18. 36	2
October	67. 17. 13	2	67. 17. 42	2	67. 17. 45	2
November	67. 16. 31	2	67. 17. 34	2	67. 18. 33	2
December	67. 16. 1	2	67. 17. 37	2	67. 17. 49	2
Means	67. 17. 35	Sum 24	67. 18. 41	Sum 24	67. 18. 45	Sum 24

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 1894.

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. 16. 33	67. 16. 5	67. 17. 19
	B 2	24	67. 15. 37		
6-inch Needles	C 1	24	67. 16. 41	67. 17. 8	
	C 2	24	67. 17. 35		
3-inch Needles	D 1	24	67. 18. 41	67. 18. 43	
	D 2	24	67. 18. 45		

TABLE XIX.—DETERMINATIONS OF THE ABSOLUTE VALUE OF HORIZONTAL MAGNETIC FORCE IN THE YEAR 1894.

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

Greenwich Civil Time, 1894.		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	16. 16	1·0	50·2	10. 5. 43	5·733	100	49·6	N
		1·3		4. 34. 57	5·736	100	49·5	
February	14. 15	1·0	48·0	10. 6. 52	5·741	100	46·8	N
		1·3		4. 35. 30	5·737	100	46·8	
March	16. 16	1·0	51·1	10. 6. 3	5·733	100	50·6	N
		1·3		4. 35. 25	5·739	100	50·6	
April	13. 13	1·0	57·5	10. 6. 32	5·751	100	57·2	C
		1·3		4. 35. 33	5·748	100	58·3	
May	16. 15	1·0	60·3	10. 5. 2	5·746	100	61·4	N
		1·3		4. 34. 30	5·745	100	61·1	
June	15. 15	1·0	61·6	9. 57. 37	5·761	100	61·1	C
		1·3		4. 31. 15	5·766	100	61·7	
July	18. 13	1·0	62·7	9. 58. 37	5·777	100	61·1	C
		1·3		4. 31. 50	5·778	100	61·1	
July	25. 16	1·0	66·0	9. 56. 31	5·776	100	66·8	N
		1·3		4. 31. 22	5·774	100	67·4	
August	17. 12	1·0	60·3	9. 58. 15	5·778	100	60·5	C
		1·3		4. 31. 38	5·776	100	61·0	
September	18. 15	1·0	59·8	9. 57. 54	5·777	100	60·0	N
		1·3		4. 31. 49	5·770	100	60·6	
October	15. 13	1·0	56·0	9. 59. 14	5·773	100	55·1	C
		1·3		4. 32. 2	5·772	100	55·3	
November	19. 14	1·0	52·6	10. 0. 30	5·772	100	52·1	C
		1·3		4. 32. 45	5·770	100	51·8	
December	18. 14	1·0	51·7	9. 58. 5	5·773	100	50·5	N
		1·3		4. 31. 41	5·770	100	51·2	

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, 1894.		In English Measure.									In Metric Measure.	
		Apparent Value of A_1.	Apparent Value of A_2.	Apparent Value of P.	Mean Value of P.	Log $\frac{m}{X}$.	Corrected Time of Vibration of Deflecting Magnet.	Log $m X$.	Value of m.	Value of Horizontal Force X.	Value of Horizontal Force. As observed.	Value of Horizontal Force. Reduced to Mean of Month.
	d h						s					
Jan.	16. 16	0·08786	0·08797	−0·00316		8·94558	5·7385	0·14326	0·3503	3·9705	1·8307	1·8284
Feb.	14. 15	0·08799	0·08811	−0·00350		8·94625	5·7440	0·14241	0·3502	3·9635	1·8275	1·8271
Mar.	16. 16	0·08791	0·08813	−0·00603		8·94612	5·7395	0·14311	0·3504	3·9673	1·8292	1·8277
Apr.	13. 13	0·08808	0·08827	−0·00525		8·94687	5·7502	0·14153	0·3501	3·9567	1·8244	1·8278
May	16. 15	0·08791	0·08798	−0·00192		8·94573	5·7466	0·14209	0·3499	3·9644	1·8279	1·8261
June	15. 15	0·08686	0·08696	−0·00276		8·94061	5·7628	0·13965	0·3468	3·9767	1·8336	1·8314
July	18. 13	0·08702	0·08716	−0·00395	−0·00443	8·94151	5·7768	0·13755	0·3464	3·9630	1·8273	1·8297
July	25. 16	0·08677	0·08706	−0·00823		8·94063	5·7720	0·13829	0·3463	3·9704	1·8307	1·8274
Aug.	17. 12	0·08693	0·08706	−0·00361		8·94103	5·7768	0·13754	0·3462	3·9651	1·8282	1·8302
Sept.	18. 15	0·08688	0·08711	−0·00666		8·94102	5·7732	0·13807	0·3464	3·9675	1·8294	1·8278
Oct.	15. 13	0·08701	0·08712	−0·00321		8·94137	5·7745	0·13785	0·3464	3·9650	1·8282	1·8305
Nov.	19. 14	0·08714	0·08730	−0·00451		8·94216	5·7744	0·13786	0·3467	3·9614	1·8265	1·8296
Dec.	18. 14	0·08678	0·08695	−0·00479		8·94037	5·7768	0·13748	0·3459	3·9678	1·8295	1·8290
Means	...	...	...	...	...	...	...	...	...	3·9661	1·8287	1·8287

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 1894.

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

Greenwich Civil Time, 1894.	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.	°	° ′ ″			°	
January 17. 15	30 40	10·6	19. 56. 55 8. 15. 35	4·230 4·228	100 100	10·6 10·6	N
February 15. 16	30 40	7·3	20. 0. 42 8. 17. 10	4·231 4·231	100 100	7·1 7·4	N
March 14. 15	30 40	10·5	19. 57. 47 8. 15. 52	4·233 4·237	100 100	10·4 10·6	N
April 17. 16	30 40	13·7	19. 53. 40 8. 14. 30	4·239 4·240	100 100	13·4 13·9	N
May 15. 16	30 40	16·3	19. 56. 50 8. 15. 32	4·241 4·231	100 100	15·7 16·0	C
June 19. 15	30 40	16·1	19. 49. 2 8. 13. 12	4·237 4·232	100 100	16·0 16·6	N
July 13. 14	30 40	18·1	19. 49. 42 8. 13. 32	4·237 4·238	100 100	17·6 17·6	C
July 17. 15	30 40	17·5	19. 48. 57 8. 14. 5	4·245 4·238	100 100	17·2 17·8	N
August 14. 15	30 40	20·5	19. 46. 50 8. 11. 35	4·242 4·241	100 100	20·2 21·2	N
September 14. 14	30 40	15·1	19. 52. 22 8. 14. 37	4·239 4·239	100 100	14·5 15·0	C
October 19. 16	30 40	11·3	19. 50. 7 8. 13. 7	4·232 4·237	100 100	10·6 11·2	N
November 16. 14	30 40	11·8	19. 55. 37 8. 14. 52	4·238 4·235	100 100	12·1 11·9	N
December 14. 13	30 40	11·8	19. 54. 5 8. 14. 45	4·234 4·235	100 100	10·8 11·8	C

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, 1894.	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. 17. 15	4627·9	4619·0	+ 3·93	+ 2·44	3·66405	4·2237	2·19054	845·9	0·18333	1·8333	1·8309
Feb. 15. 16	4634·1	4625·9	+ 3·65		3·66467	4·2289	2·18943	845·4	0·18297	1·8297	1·8297
Mar. 14. 15	4630·8	4621·4	+ 4·22		3·66430	4·2295	2·18934	844·9	0·18303	1·8303	1·8285
Apr. 17. 16	4623·3	4616·4	+ 3·08		3·66370	4·2309	2·18908	844·1	0·18310	1·8310	1·8277
May 15. 16	4641·4	4632·3	+ 4·03		3·66530	4·2256	2·19020	846·7	0·18300	1·8300	1·8288
June 19. 15	4612·1	4610·3	+ 0·80		3·66290	4·2236	2·19061	844·8	0·18359	1·8359	1·8361
July 13. 14	4619·2	4618·2	+ 0·47		3·66360	4·2253	2·19028	845·2	0·18337	1·8337	1·8322
July 17. 15	4615·1	4621·9	− 3·03		3·66358	4·2294	2·18944	844·3	0·18320	1·8320	1·8327
Aug. 14. 15	4614·6	4606·1	+ 3·79		3·66281	4·2261	2·19015	844·3	0·18351	1·8351	1·8335
Sept. 14. 14	4621·8	4620·9	+ 0·38		3·66385	4·2297	2·18935	844·5	0·18313	1·8313	1·8313
Oct. 19. 16	4604·5	4598·0	+ 2·89		3·66195	4·2293	2·18938	842·7	0·18353	1·8353	1·8365
Nov. 16. 14	4626·0	4615·3	+ 4·78		3·66378	4·2301	2·18922	844·3	0·18311	1·8311	1·8330
Dec. 14. 13	4620·3	4614·2	+ 2·70		3·66347	4·2288	2·18949	844·3	0·18324	1·8324	1·8329
Means ...	...	...	...	...	...	...	...	...	0·18324	1·8324	1·8318

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 9, 15, 19, 20, 27, February 8, 10, 11, 14, 17, March 5, 7, 13, 28, 29, April 4, 11, 16, 22, 23, May 6, 11, 12, 19, 27, June 7, 13, 15, 26, 27, July 7, 10, 14, 26, 31, August 2, 10, 17, 18, 28, September 3, 4, 6, 13, 26, October 10, 11, 12, 23, 28, November 4, 5, 12, 21, 22, December 4, 11, 25, 26, 27.

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 1·8287 and 4·3692 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.)

1894.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	′0·7	′0·0	′3·1	′4·5	′4·3	′4·8	′3·4	′4·3	′1·6	′0·0	′0·3	′0·8	′2·32
1h	1·0	0·5	3·3	4·4	4·1	4·7	3·3	4·1	1·3	1·0	0·8	0·7	2·43
2	0·9	1·2	3·7	4·1	4·2	4·1	3·1	3·8	1·6	1·3	1·1	0·8	2·49
3	1·3	1·5	3·3	4·4	3·9	3·8	3·2	3·1	1·7	1·0	1·1	0·7	2·42
4	1·1	1·9	2·8	4·3	3·3	2·7	2·8	2·7	1·8	1·1	1·3	0·8	2·22
5	1·1	1·9	2·9	4·1	2·4	1·6	1·2	2·0	1·4	1·0	1·1	0·6	1·78
6	0·8	2·2	2·6	3·3	1·0	0·3	0·4	0·7	0·7	1·0	0·6	0·5	1·17
7	0·6	1·7	1·6	1·6	0·0	0·0	0·3	0·0	0·0	0·7	0·6	0·4	0·62
8	0·3	1·3	0·0	0·0	0·3	0·2	0·0	0·3	0·1	0·1	0·1	0·2	0·24
9	0·0	1·1	0·0	0·0	1·5	1·2	0·9	1·7	1·2	0·2	0·0	0·0	0·65
10	0·9	1·9	2·3	2·1	4·4	3·4	3·5	4·8	3·2	1·6	1·2	0·7	2·50
11	2·4	4·5	5·9	6·3	7·6	6·1	5·9	8·3	6·0	3·9	3·0	2·0	5·16
Noon	4·3	6·3	8·4	10·2	10·5	8·9	8·4	11·1	8·1	5·7	4·6	2·6	7·43
13h	5·7	7·8	10·3	13·1	12·1	10·3	10·0	12·2	8·9	6·3	5·3	3·5	8·79
14	6·0	8·6	9·9	12·5	12·5	10·0	10·9	11·4	8·0	6·1	5·1	3·9	8·74
15	4·8	7·8	8·2	11·0	11·0	9·3	10·0	10·1	6·5	5·3	3·9	3·4	7·61
16	4·0	6·3	6·4	9·1	9·3	8·8	8·1	8·2	5·3	4·0	3·2	2·5	6·27
17	3·8	5·7	5·3	7·7	8·0	7·2	6·2	6·1	4·0	3·5	2·6	2·1	5·18
18	3·5	5·1	4·9	6·3	6·7	6·6	5·4	5·3	3·6	3·0	2·4	1·7	4·54
19	3·1	5·0	4·7	5·8	6·2	5·9	4·8	5·3	2·9	2·6	2·0	1·3	4·13
20	2·2	4·2	4·2	5·8	5·8	5·8	4·9	5·3	2·7	2·3	1·4	1·2	3·82
21	1·8	3·6	4·0	6·0	5·4	6·0	4·7	4·9	2·6	1·3	0·9	0·9	3·51
22	1·5	3·1	3·7	5·9	5·4	5·9	4·1	4·5	2·4	1·1	0·8	0·2	3·22
23	1·2	2·7	3·5	5·4	5·3	4·1	4·0	4·3	2·0	0·7	1·0	0·1	2·86
24	1·4	2·4	3·2	5·0	4·6	3·8	2·4	3·9	1·4	0·9	1·1	0·6	2·56
Means 0h—23h	′2·21	′3·58	′4·37	′5·75	′5·63	′5·07	′4·56	′5·19	′3·23	′2·28	′1·85	′1·32	′3·75
Means 1h—24h	′2·24	′3·68	′4·38	′5·77	′5·65	′5·03	′4·52	′5·17	′3·23	′2·32	′1·88	′1·31	′3·76

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.)

1894.

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.	56	102	84	154	169	309	233	426	243	444	217	397	216	395	227	415	214	391	123	225	125	229	78	143	165·4	302·5
1h	67	123	68	124	160	293	233	426	212	388	218	399	205	375	228	417	193	353	134	245	126	230	75	137	159·9	292·5
2	51	93	67	123	153	280	221	404	190	347	214	391	192	351	218	399	181	331	141	258	125	229	70	128	151·9	277·8
3	51	93	81	148	149	272	212	388	181	331	219	400	198	362	209	382	181	331	145	265	135	247	64	117	152·1	278·0
4	72	132	100	183	147	269	216	395	179	327	188	344	192	351	201	368	186	340	149	272	157	287	73	133	155·0	283·4
5	74	135	116	212	152	278	221	404	169	309	168	307	171	313	191	349	180	329	165	302	171	313	79	144	154·8	282·9
6	84	154	126	230	156	285	223	408	143	262	136	249	131	240	144	263	160	293	171	313	175	320	83	152	144·3	264·1
7	78	143	130	238	146	267	185	338	101	185	90	165	128	234	86	157	118	216	153	280	149	272	77	141	120·1	219·7
8	62	113	113	207	99	181	135	247	53	97	46	84	82	150	40	73	58	106	117	214	101	185	64	117	80·8	147·8
9	26	48	59	108	43	79	63	115	6	11	22	40	38	69	0	0	2	4	58	106	55	101	33	60	33·7	61·8
10	12	22	5	9	9	16	21	38	0	0	0	0	0	0	6	11	0	0	10	18	10	18	11	20	7·0	12·7
11	0	0	0	0	0	0	0	0	6	11	0	0	14	26	42	77	16	29	0	0	0	0	0	0	6·5	11·9
Noon	0	0	4	7	34	62	28	51	8	15	46	84	38	69	78	143	80	146	41	75	10	18	1	2	30·7	56·0
13h	29	53	27	49	88	161	72	132	64	117	74	135	80	146	138	252	136	249	93	170	42	77	39	71	73·5	134·3
14	47	86	63	115	136	249	123	225	122	223	134	245	149	272	184	336	152	278	127	232	76	139	66	121	114·9	210·1
15	53	97	98	179	164	300	179	327	171	313	244	446	207	379	233	426	167	305	141	258	96	176	75	137	152·3	278·6
16	69	126	112	205	175	320	215	393	245	448	292	534	237	433	233	426	173	316	149	272	131	240	99	181	177·5	324·5
17	95	174	138	252	183	335	249	455	287	525	289	528	268	490	265	485	187	342	175	320	156	285	117	214	200·8	367·1
18	112	205	146	267	189	346	289	528	281	514	308	563	270	494	295	539	203	371	198	362	179	327	113	207	215·2	393·6
19	127	232	154	282	195	357	289	528	275	503	329	602	268	490	303	554	216	395	206	377	179	327	110	201	220·9	404·0
20	130	238	165	302	197	360	287	525	271	496	309	565	272	497	283	518	238	435	198	362	161	294	106	194	218·1	398·8
21	128	234	153	280	193	353	275	503	265	485	279	510	258	472	263	481	232	424	180	329	152	278	87	159	205·4	375·7
22	118	216	146	267	183	335	263	481	243	444	279	510	243	444	250	457	214	391	176	322	146	267	69	126	194·2	355·0
23	117	214	145	265	195	357	266	486	228	417	256	468	243	444	244	446	204	373	189	346	151	276	74	135	192·7	352·3
24	95	174	135	247	181	331	260	475	214	391	234	428	208	380	250	457	210	384	187	342	153	280	76	139	183·6	335·7
Means 0^h—23^h	69·1	126·4	95·8	175·2	138·1	252·7	187·4	342·6	164·3	300·5	181·5	331·9	170·8	312·3	181·7	332·3	153·8	281·2	135·0	246·8	117·0	214·0	69·3	126·7	138·7	253·5
1^h—24^h	70·7	129·4	98·0	179·1	138·6	253·6	188·5	344·7	163·1	298·3	182·2	333·2	170·5	311·7	182·7	334·0	153·6	280·9	137·6	251·7	118·2	216·1	69·2	126·5	139·4	254·9

TABLE XXII.—MONTHLY MEAN DIURNAL INEQUALITY OF VERTICAL MAGNETIC FORCE.

(The results are corrected for temperature and in each case diminished by the smallest hourly value.)

1894.

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.	5	22	19	83	37	162	31	135	51	223	30	131	29	127	32	140	42	184	30	131	2	9	20	87	27·3	119·5
1^h	3	13	17	74	33	144	27	118	52	227	28	122	28	122	34	149	38	166	30	131	4	17	18	79	26·0	113·5
2	2	9	18	79	33	144	27	118	54	236	28	122	26	114	32	140	40	175	28	122	0	0	21	92	25·8	112·6
3	0	0	20	87	27	118	27	118	58	253	26	114	28	122	34	149	40	175	24	105	2	9	17	74	25·2	110·3
4	4	17	16	70	29	127	27	118	62	271	26	114	36	157	36	157	42	184	24	105	2	9	19	83	26·9	117·7
5	4	17	20	87	32	140	29	127	64	280	32	140	40	175	42	184	40	175	24	105	4	17	17	74	29·0	126·7
6	6	26	16	70	38	166	31	135	62	271	38	166	40	175	44	192	42	184	22	96	6	26	17	74	30·2	131·8
7	10	44	18	79	48	210	37	162	60	262	42	184	42	184	49	214	48	210	28	122	6	26	17	74	33·7	147·6
8	12	52	26	114	46	201	35	153	54	236	36	157	30	131	49	214	42	184	30	131	14	61	17	74	32·6	142·3
9	6	26	24	105	30	131	25	109	42	184	28	122	26	114	31	135	34	149	24	105	12	52	19	83	25·1	109·6
10	4	17	20	87	16	70	16	70	24	105	16	70	20	87	23	100	14	61	12	52	9	39	17	74	15·9	69·3
11	2	9	10	44	6	26	10	44	2	9	0	0	6	26	9	39	0	0	0	0	7	31	24	105	6·3	27·8
Noon	4	17	4	17	0	0	0	0	0	0	2	9	0	0	0	0	4	17	4	17	9	39	24	105	4·3	18·4
13^h	5	22	12	52	10	44	2	9	18	79	6	26	4	17	8	35	16	70	14	61	13	57	22	96	10·8	47·3
14	15	66	18	79	30	131	21	92	40	175	18	79	16	70	28	122	28	122	26	114	19	83	24	105	23·6	103·2
15	23	100	26	114	46	201	37	162	56	245	32	140	28	122	44	192	46	201	32	140	13	57	22	96	33·7	147·5
16	23	100	28	122	52	227	43	188	64	280	44	192	38	166	52	227	50	218	40	175	15	66	23	100	39·3	171·7
17	23	100	22	96	50	218	49	214	80	350	48	210	44	192	50	218	50	218	40	175	15	66	17	74	40·7	177·6
18	21	92	20	87	48	210	49	214	86	376	56	245	50	218	48	210	50	218	42	184	11	48	9	39	40·8	178·4
19	21	92	13	57	44	192	47	205	80	350	56	245	46	201	46	201	52	227	46	201	6	26	7	31	38·7	169·0
20	21	92	11	48	48	210	45	197	70	306	50	218	38	166	40	175	56	245	46	201	10	44	4	17	36·6	159·9
21	19	83	9	39	50	218	43	188	68	297	42	184	36	157	38	166	52	227	46	201	6	26	4	17	34·4	150·2
22	17	74	1	4	46	201	41	179	60	262	38	166	34	149	32	140	44	192	46	201	4	17	6	26	30·8	134·3
23	16	70	0	0	40	175	37	162	60	262	30	131	28	122	30	131	44	192	42	184	4	17	2	9	27·7	121·2
24	15	66	0	0	42	184	37	162	58	253	24	105	28	122	28	122	42	184	40	175	2	9	0	0	26·3	115·2
Means $0^h—23^h$	11·1	48·3	16·2	70·6	35·0	152·7	30·7	134·0	52·8	230·8	31·3	137·0	29·7	129·8	34·6	151·2	38·1	166·4	29·2	127·5	8·0	35·1	16·1	70·3	27·7	121·1
$1^h—24^h$	11·5	50·2	15·4	67·1	35·2	153·7	30·9	135·2	53·1	232·0	31·1	135·9	29·7	129·5	34·5	150·5	38·1	166·4	29·6	129·3	8·0	35·1	15·3	66·7	27·7	121·0

ROYAL OBSERVATORY, GREENWICH.

MAGNETIC DISTURBANCES

AND

EARTH CURRENTS.

1894.

MAGNETIC DISTURBANCES in DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE, recorded at the ROYAL OBSERVATORY, GREENWICH, in the Year 1894.

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).

1894.

January 1^d 3^h Wave in Dec. (+ 3′).

2^d $22\frac{1}{2}^h$ Sharp wave in H.F. (+ ·004), followed till 3^d 5^h by fluctuations (± ·0015). 3^d $3\frac{1}{2}^h$ to 6^h Wave in Dec. (− 13′). $3\frac{1}{2}^h$ to 9^h Wave in V.F. (− ·001).

3^d 15^h to 4^d 15^h. See Plate I.

4^d 18^h to 21^h Fluctuations in Dec. (± 3′): in H.F. and V.F. small.

5^d 3^h to 5^h Wave in Dec. (+ 13′).

5^d $19\frac{1}{2}^h$ to 22^h Small fluctuations in Dec. and H.F.

6^d 14^h to 16^h Wave in H.F. (− ·002).

9^d 20^h to 21^h Wave in Dec. (− 5′): in H.F. (+ ·002).

10^d 19^h to 23^h Small fluctuations in Dec. and H.F.

11^d 12^h to 12^d 12^h. See Plate I.

13^d 20^h to 22^h Two successive waves in Dec. (− 10′ and − 9′). 20^h to 23^h Fluctuations in H.F (± ·0015): in V.F. small.

21^d 11^h to 18^h Small fluctuations in Dec. and H.F.

22^d 3^h to 11^h Small rapid fluctuations in Dec. and H.F., with wave 6^h to $7\frac{1}{2}^h$ in Dec. (+ 6′): in H.F. (+ ·001).

22^d 19^h to $20\frac{1}{2}^h$ Wave in Dec. (− 5′). 22^h to 23^h Wave in Dec. (+ 7′): in H.F. (+ ·002): decrease of V.F. (− ·0005).

23^d 2^h to $3\frac{1}{2}^h$ Wave in Dec. (+ 5′): small decrease in V.F.

24^d 16^h to 17^h Wave in Dec. (− 3′): in H.F. (− ·001).

25^d $23\frac{1}{2}^h$ to 27^d 5^h Fluctuations in Dec. (± 3′): in H.F. and V.F. small. 25^d $23\frac{1}{2}^h$ to 26^d 1^h Wave in H.F. (+ ·003). 26^d 12^h to 13^h Wave in Dec. (− 5′). 26^d 17^h to $17\frac{1}{2}^h$ Wave in Dec. (+ 5′): double wave in H.F. (+ ·0013 to − ·0013).

28^d 19^h to 24^h Small fluctuations in Dec. and H.F.

29^d 19^h to 21^h Wave in Dec. (− 10′): small fluctuations in H.F.

30^d $13\frac{1}{2}^h$ to $14\frac{1}{2}^h$ Wave in Dec. (− 5′): in H.F. (− ·0016). 19^h to $20\frac{1}{2}^h$ Wave in Dec. (− 5′). 22^h to $23\frac{1}{2}^h$ Double wave in Dec. (− 4′ to + 5′): wave in H.F. (+ ·003): decrease of V.F. (− ·0003).

1894.

February 2d 4h to 22h Fluctuations in Dec. (± 5′): in H.F. (± ·0015): in V.F. small. 18½h to 20h Wave in Dec. (− 10′).

3d 0h to 20h Fluctuations in Dec. (± 5′): in H.F. (± ·001): in V.F. small. 15½h to 17h Irregular wave in Dec. (− 6′). 18½h to 19½h Double wave in Dec. (+ 5′ to − 7′): two successive waves in H.F. (+ ·0015 and + ·002).

4d 17½h to 19h Wave in Dec. (− 6′): in H.F. (+ ·001). 21h to 22h Double wave in Dec. (−3′ to + 3′): wave in H.F. (+ ·002): shallow wave in V.F.

5d 0h to 3h Wave in Dec. (− 7′).

5d 18h to 22h Two successive waves in Dec. (− 8′ and − 4′): fluctuations in H.F. (± ·001), with wave 18½h to 20h (+ ·002).

6d 15h to 24h Fluctuations in Dec. (± 3′). 22½h to 24h Wave in H.F. (+ ·0025). 23h to 24h Decrease of V.F. (− ·0007).

7d 1h to 4½h Wave in Dec. (+ 6′), followed by small fluctuations till 9h.

7d 17h to 8d 2h Small fluctuations in Dec., with wave 7d 23h to 8d 2h (− 5′): fluctuations in H.F. (± ·001).

12d 19h to 23h Two successive waves in Dec. (− 7′ and − 9′). 19h to 20h Wave in H.F. (− ·0015). 21½h to 22½h Wave in H.F. (+ ·002). 19½h to 22h Wave in V.F. (+ ·0005).

15d 13h to 23h Occasional small fluctuations in Dec. and H.F.

16d 15h to 24h Small fluctuations in Dec., H.F., and V.F.

17d 9h to 15h Small fluctuations in Dec. (± 3′): in H.F. (± ·001).

18d 4h to 24h Small rapid fluctuations in Dec., H.F., and V.F. 18h to 20h Wave in Dec. (− 6′): in H.F. (− ·0015).

19d 5h to 20h Fluctuations in Dec., H.F., and V.F. 18½h to 19½h Wave in Dec. (− 5′): in H.F. (+ ·0015).

20d 12h to 26d 12h. See Plates II., III. and IV.

26d 16½h to 21h Wave in Dec. (− 20′), very steep at commencement, with superposed fluctuations, (± 4′): fluctuations in H.F. (± ·001), with steep double wave 16½h to 18h (− ·003 to + ·0075). 15h to 21h Wave in V.F. (+ ·0011), with small superposed fluctuations.

27d 8h to 28d 1h Fluctuations in Dec. (± 3′): in H.F. and V.F. small. 27d 19h to 20½h Wave, steep at commencement, in H.F. (+ ·004). 27d 23h to 28d 1h Double wave in H.F. (− ·0015 to + ·0025). 27d 13h to 28d 1h Long irregular wave in V.F. (+ ·0008).

28d 12h to March 1d 12h. See Plate V.

March 1d 12h to 24h Small rapid fluctuations in Dec., with wave 14½h to 15½h (− 6′), serrated waves 16h to 17½h (− 10′) and 18½h to 20h (− 10′), wave 22½h to 23½h (+ 14′): 12h to 23h fluctuations in H.F. (± ·002), with irregular wave 16½h to 18h (+ ·0035), wave 19h to 20h (+ ·003), and sharp wave 21½h to 23h (+ ·006): small fluctuations in V.F., with wave 22h to 24h (− ·0005).

2d 3h to 20h Small rapid fluctuations in Dec., H.F. and V.F., with wave 18h to 19½h in Dec. (− 8′): in H.F. (− ·002): slight increase of V.F.

4d 17h to 19h Wave in Dec. (− 5′): in H.F. (+ ·003).

6d 18½h to 20h Wave in Dec. (− 9′): small fluctuations in H.F. and V.F.

8d 20h to 9d 5h Long irregular wave in Dec. (− 12′): in H.F. (− ·004), with superposed fluctuations (± ·001): in V.F. (+ ·0008).

9d 22½h to 10d 0½h Wave in Dec. (− 7′): in H.F. (+ ·002): slight decrease of V.F.

14d 17h to 20h Small fluctuations in Dec.: wave in H.F. (− ·002).

16d 17h to 19h Wave in Dec. (− 8′): in H.F. (− ·002): in V.F. (+ ·0005).

16d 22h to 24h Small fluctuations in Dec. 23h to 24h Wave in H.F. (+ ·002). 23h to 23½h Decrease of V.F. (− ·0004).

17d 5h to 14h Small fluctuations in Dec. and H.F.

18d 3h to 4h Wave in Dec. (+ 5′): in H.F. (+ ·0025): decrease in V.F. (− ·0004).

18d 9h to 23h Fluctuations in Dec. (± 3′), with wave 21h to 23h (− 9′): in H.F. (±·001), with wave 21½h to 23h (+ ·003): no register of V.F.

1894.

March 19^d $19\frac{1}{2}^h$ to 22^h Wave in Dec. (− 5′) : small fluctuations in H.F.

21^d 0^h to 7^h Small fluctuations in Dec. and H.F.

21^d 12^h to 23^d 12^h. See Plates V. and VI.

23^d 16^h to 24^d 6^h Fluctuations in Dec. (± 3′) : in H.F. (± ·001) : in V.F. small.

24^d 19^h to 21^h Wave in Dec. (− 6′)

25^d 18^h to 26^d 2^h Two successive waves in Dec. (− 10′ and − 7′), with superposed fluctuations : small fluctuations in H.F., with two successive waves 25^d $18\frac{3}{4}^h$ to $22\frac{1}{2}^h$ (+ ·003) : and 25^d $22\frac{1}{2}^h$ to 26^d 1^h (+ ·002) : small fluctuations in V.F.

30^d 12^h to April 1^d 12^h. See Plates VI. and VII.

April 2^d 21^h to 24^h Fluctuations in Dec. (± 3′) : in H.F. and V.F. small.

3^d 22^h to 24^h Wave in Dec. (− 6′) : small fluctuations in H.F.

5^d 16^h to 18^h Wave in H.F. (− ·0017).

5^d 22^h to 6^d 3^h Two successive waves in Dec. (− 5′ and − 6′) : in H.F. (− ·001 and ·0015). 5^d $23\frac{1}{2}^h$ to 6^d 1^h Decrease of V.F. (− ·0006).

6^d 13^h to 7^d 2^h Fluctuations in Dec. (± 4′), with wave 6^d 19^h to $21\frac{1}{2}^h$ (− 10′). 6^d 23^h to 7^d 2^h Double wave in Dec. (+ 9′ to − 6′) : fluctuations in H.F. (± ·001), with wave 6^d 23^h to 7^d 2^h (+ ·003). 6^d 22^h to 7^d 3^h Wave in V.F. (− ·0009).

7^d 7^h to 8^d 8^h Fluctuations in Dec. (± 3′), with wave 7^d 19^h to 21^h (− 10′) : fluctuations in H.F. (± ·0015). 7^d 12^h to 17^h Increase of V.F. (+ ·0013).

12^d 14^h to 23^h Fluctuations in Dec. (± 3′) : in H.F. (± ·001), with wave 16^h to 17^h (− ·003).

13^d $0\frac{1}{2}^h$ to $3\frac{1}{2}^h$ Two successive double waves in Dec. (+ 7′ to − 7′) and (− 7′ to + 8′) : double wave in H.F. (+ ·003 to − ·005). 2^h to 4^h Wave in V.F. (− ·0012).

13^d 5^h to 6^h Wave in Dec. (+ 6′), followed by small fluctuations till 9^h. 4^h to 9^h Small fluctuations in H.F. and V.F.

13^d 15^h to 14^d 4^h Small fluctuations in Dec., with waves, 13^d $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ (− 15′), 13^d $21\frac{1}{2}^h$ to 14^d 0^h (− 12′), 14^d $1\frac{3}{4}^h$ to 3^h (+ 5′) : fluctuations in H.F. (± ·001), with sharp wave 13^d $18\frac{3}{4}^h$ to $19\frac{1}{2}^h$ (+ ·0045). 13^d 12^h to 14^d 0^h Long wave in V.F. (+ ·001).

14^d $18\frac{1}{2}^h$ to 20^h Wave in Dec. (− 5′) : small fluctuations in H.F.

17^d 12^h to 18^d 12^h. See Plate VII.

18^d 13^h to 19^d 5^h Fluctuations in Dec. (± 3′) : in H.F. (± ·0015) : in V.F. (± ·0003). 18^h to $19\frac{1}{2}^h$ Wave in Dec. (− 9′). 16^h to 20^h Two successive waves in H.F. (+ ·003 and + ·003).

19^d $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Wave in Dec. (− 6′) : in H.F. (+ ·0018). 20^h to $21\frac{1}{2}^h$ Double wave in Dec. (− 4′ to + 4′) : wave in H.F. (+ ·0017) : decrease of V.F. (− ·0003). 19^d $23\frac{1}{2}^h$ to 20^d $0\frac{1}{2}^h$ Shallow wave in Dec. (+ 4′) : in H.F. (+ ·0018) : decrease of V.F. (− ·0004).

20^d 5^h to 23^h Fluctuations in Dec. (± 3′) : in H.F. (± ·0005) : in V.F. small.

21^d 5^h to 22^h Small fluctuations in Dec. and H.F.

22^d 0^h to 1^h Wave in H.F. (+ ·002) : decrease of V.F. (− ·0003).

24^d 3^h to 23^h Small fluctuations in Dec., H.F. and V.F. $20\frac{1}{2}^h$ to 23^h Two successive waves in Dec. (− 7′ and − 5′) : double wave in H.F. (+ ·0014 to − ·0015) : wave in V.F. (− ·0004).

25^d 3^h to 24^h Fluctuations in Dec. (± 3′) : in H.F. (± ·001) : in V.F. small. $3\frac{1}{2}^h$ to 6^h Shallow wave in Dec. (+ 5′) : decrease of V.F. (− ·0005).

26^d 2^h to 6^h Wave in Dec. (+ 5′) : in H.F. (+ ·0014). 2^h to 9^h Double wave in V.F. (− ·0004 to + ·0004).

27^d 3^h to 4^h Increase of Dec. (+ 4′).

27^d 22^h to 24^h Wave in Dec. (− 4′).

28^d 6^h to 23^h Occasional fluctuations in Dec. (± 4′) : in H.F. (± ·001). 16^h to 17^h Wave in H.F. (+ ·0025).

29^d 1^h to $2\frac{1}{2}^h$ Wave in Dec. (+ 4′) in H.F. (+ ·0016) : decrease of V.F. (− ·0003) ; followed by fluctuations till 17^h, in Dec. (± 3′) : in H.F. (± ·001) : in V.F. small.

29^d 18^h to 21^h Irregular wave in Dec. (− 5′) : in V.F. (+ ·0005).

30^d 5^h to 22^h Fluctuations in Dec. (± 3′) : in H.F. (± ·001) : in V.F. small.

30^d 22^h to 24^h Wave in Dec. (− 8′) : in H.F. (+ ·0025) : decrease of V.F. (− ·0007).

1894.

May 1^d 0^h to 23^h Fluctuations in Dec. (± 4′) : in H.F. (± ·001) : in V.F. small.

2^d $0\frac{1}{2}^h$ to 3^h Wave in Dec. (+ 7′) : in H.F. (+ ·001) : in V.F. (− ·0004).

2^d 15^h to 3^d 2^h Fluctuations in H.F. (± ·001). 2^d 17^h to 20^h Wave in Dec. (− 5′). 3^d 0^h to $1\frac{1}{2}^h$ Wave in Dec. (+ 6′) : in H.F. (+ ·0015). 3^d 0^h to 1^h Decrease of V.F. (− ·0004).

3^d 21^h to 4^d 23^h Fluctuations in H.F. (± ·001). 4^d 20^h to 22^h Wave in Dec., steep at commencement, (− 9′) : in H.F. (+ ·002).

5^d 23^h to 6^d 2^h Wave in Dec. (− 7′) : in H.F. (+ ·001).

7^d 17^h to 9^d 7^h Frequent small rapid fluctuations in Dec., H.F. and V.F. 8^d 1^h to 4^h Wave in Dec. (+ 9′). 9^d 1^h to 6^h Wave in V.F. (− ·0004).

10^d 3^h to 12^h Small rapid fluctuations in Dec. and H.F.

13^d 5^h to 16^d 6^h Frequent fluctuations in Dec. (± 5′). Two successive waves 14^d $19\frac{1}{2}^h$ to 21^h (− 10′ and − 9′), wave 14^d $22\frac{1}{2}^h$ to 15^d $1\frac{1}{2}^h$ (− 17′) : Fluctuations in H.F. (± ·0025), with wave 14^d $16\frac{1}{2}^h$ to $18\frac{1}{2}^h$ (+ ·005), and sharp successive waves 14^d $19\frac{1}{2}^h$ to 21^h (+ ·004 and + ·002) : in V.F. small.

16^d 21^h to 17^d 6^h Fluctuations in Dec. (± 4′) : in H.F. and V.F. small.

17^d 1^h to $2\frac{1}{2}^h$ Wave in Dec. (+ 6′).

17^d 15^h to 17^h Wave in H.F. (− ·0025).

20^d 20^h to 21^d 10^h Fluctuations in Dec. (± 3′) : in H.F. small.

22^d 12^h to 23^d 5^h Small fluctuations in Dec. and H.F., with waves in Dec. 22^d $23\frac{1}{4}^h$ to 23^d 1^h (+ 8′), 23^d $2\frac{1}{2}^h$ to 5^h (+ 6′) : in H.F. 22^d $13\frac{1}{2}^h$ to 16^h (+ ·003), 22^d 17^h to 21^h (+ ·0035) : 22^d $22\frac{1}{2}^h$ to 23^d $0\frac{1}{2}^h$ Decrease of V.F. (− ·0008).

24^d 13^h to 22^h Small fluctuations in H.F.

26^d 1^h to 3^h Wave in Dec. (+ 4′).

27^d 16^h to 23^h Small fluctuations in Dec. and H.F.

28^d 15^h to 29^d 7^h Small fluctuations in Dec. and H.F., with waves in Dec. 28^d 22^h to 29^d 0^h (− 10′) and 29^d 2^h to 6^h (− 10′) : wave in H.F. 28^d $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ (+ ·003) : Waves in V.F. 28^d 15^h to 23^h (+ ·0012), and 29^d 2^h to 7^h (− ·0008).

29^d $18\frac{1}{2}^h$ to 20^h Wave in Dec. (− 5′) : in H.F. (− ·002).

30^d 0^h to 10^h Two successive waves in Dec. (− 6′ and − 7′).

30^d 15^h to 31^d 19^h Occasional small fluctuations in Dec. with double wave 31^d 0^h to 3^h (− 10′ to + 10′) : fluctuations in H.F. (± ·0015). 30^d 23^h to 31^d 7^h Irregular wave in V.F. (− ·0007). 31^d 13^h to 22^h Long wave in V.F. (+ ·0008).

June 1^d $4\frac{3}{4}^h$ to 2^d 1^h Small fluctuations in Dec., H.F. and V.F. 1^d 17^h to 22^h Wave in Dec. (− 7′). 1^d 15^h to 20^h Two successive waves in H.F. (+ ·003 and + ·004). 1^d 17^h to 22^h Wave in V.F. (+ ·0005).

3^d 0^h to 22^h Fluctuations in Dec. (± 3′), with serrated wave 19^h to 22^h (− 7′) : in H.F. (± ·001). 12^h to 13^h Wave in H.F. (+ ·002). 1^h to 3^h Wave in V.F. (− ·0005).

6^d 0^h to 1^h Wave in H.F. (+ ·001). 0^h to 3^h Wave in V.F. (− ·0005). No register of Dec.

7^d 23^h to 8^d $0\frac{1}{2}^h$ Wave in Dec. (− 5′).

8^d $22\frac{1}{2}^h$ to 9^d 2^h Small rapid fluctuations in Dec. and H.F.

9^d 12^h to 11^d 12^h. See Plate VIII.

11^d 12^h to 12^d 8^h Occasional fluctuations in Dec. (± 4′) : in H.F. (± ·0015).

11^d 14^h to 18^h Two successive waves in H.F. (+ ·003 and + ·003). 11^d 19^h to $20\frac{1}{2}^h$ Wave in H.F. (+ ·0015).

12^d 2^h to 5^h Double wave in Dec. (+ 5′ to − 5′): wave in H.F. (+ ·0016): wave in V.F. (− ·0005).

13^d 15^h to 18^h Wave in H.F. (+ ·002).

14^d 12^h to 15^d 4^h Small fluctuations in Dec. : in H.F. (± ·0015). 14^d $14\frac{1}{2}^h$ to 16^h Wave in H.F. (+ ·0024). 14^d $17\frac{1}{2}^h$ to 20^h Wave in H.F. (+ ·002): small fluctuations in V.F.

15^d 14^h to 21^h Fluctuations in H.F. (± ·001).

16^d 4^h to 9^h Small fluctuations in Dec. and H.F.

16^d 19^h to 21^h Wave in Dec. (− 7′). 18^h to 21^h Small fluctuations in H.F. 17^h to 20^h Shallow wave in V.F. (+ ·0005).

1894.

June 17^{d} 1^{h} to 24^{h} Fluctuations in Dec. (± 3′): in H.F. (± ·001): in V.F. small. 15^{h} to 23^{h} Long wave in V.F. (+ ·0008).

18^{d} 17^{h} to 21^{h} Wave in Dec. (− 7′) : irregular wave in H.F. (+ ·002) : in V.F. (+ ·0005).

19^{d} 1^{h} to 4^{h} Double wave in Dec. (−3′ to + 3′).

19^{d} 5^{h} to 22^{h} Fluctuations in Dec. (± 5′) : in H.F. (± ·001) : in V.F. small. 7^{h} to 9^{h} Two successive waves in Dec. (+ 8′ and + 9′) : wave in H.F. (− ·0025). $16\frac{1}{2}^{h}$ to 19^{h} Two successive waves in H.F. (+ ·006 and + ·004), the first very steep at commencement. $16\frac{1}{2}^{h}$ Sharp increase of Dec. (+ 6′). $16\frac{1}{4}^{h}$ to $16\frac{1}{2}^{h}$ Sharp wave in V.F. (+ ·0006).

21^{d} $0\frac{3}{4}^{h}$ to $1\frac{1}{2}^{h}$ Sharp wave in Dec. (+ 3′) : in H.F. (+ ·003) : in V.F. small.

21^{d} 10^{h} to 18^{h} Small fluctuations in Dec. : in H.F. (± ·001). 16^{h} to 20^{h} Long wave in V.F. (+ ·0006).

22^{d} 14^{h} to 23^{d} 2^{h} Fluctuations in Dec. (± 3′) : in H.F. (± ·001) : shallow wave in V.F. (+ ·0008).

23^{d} $7\frac{1}{2}^{h}$ to 20^{h} Small fluctuations in Dec. : in H.F. (± ·001).

24^{d} 12^{h} to 25^{d} 6^{h} Small fluctuations in Dec. and H.F.

25^{d} 12^{h} to 24^{h} Small fluctuations in Dec. : in H.F. (± ·001) : in V.F. very small.

26^{d} 12^{h} to 17^{h} Fluctuations in H.F. (± ·001).

27^{d} 1^{h} to 10^{h} Small fluctuations in Dec., H.F. and V.F.

27^{d} 22^{h} to 28^{d} 3^{h} Small fluctuations in Dec. and H.F.

28^{d} 13^{h} to 16^{h} Wave in H.F. (+ ·003).

28^{d} 20^{h} to 24^{h} Small fluctuations in Dec. and H.F.

29^{d} 11^{h} to 23^{h} Fluctuations in Dec. (± 3′) : in H.F. (± ·001) : in V.F. small.

30^{d} 12^{h} to 24^{h} Marked fluctuations in H.F. (± ·0015). $14\frac{1}{2}^{h}$ to 16^{h} Double wave in H.F. (− ·0015 to + ·0012). 15^{h} to 24^{h} Small fluctuations in Dec. and V.F.

July 1^{d} $1\frac{1}{2}^{h}$ to 3^{h} Wave in Dec. (+ 6′).

1^{d} 20^{h} to 2^{d} 9^{h} Fluctuations in Dec. (± 3′), with wave 2^{d} $3\frac{1}{2}^{h}$ to $6\frac{1}{2}^{h}$ (+ 11′) : fluctuations in H.F. (± ·001). 2^{d} $3\frac{1}{2}^{h}$ to 9^{h} Two successive waves in H.F. (− ·002 and − ·003) : small fluctuations in V.F., with sharp wave 1^{d} 21^{h} to 22^{h} (+ ·0004).

2^{d} 2^{h} to 3^{d} 2^{h}. See Plate VIII.

4^{d} $21\frac{1}{2}^{h}$ to 5^{d} 2^{h} Small fluctuations in Dec. and H.F. 4^{d} 22^{h} to 23^{h} Irregular wave in H.F. (+ ·0015). 5^{d} 1^{h} to 2^{h} Wave in Dec. (+ 8′) : in H.F. (+ ·0015). 5^{d} 1^{h} to 4^{h} Wave in V.F. (− ·0005).

5^{d} 12^{h} to 21^{h} Small fluctuations in H.F. 15^{h} to 21^{h} Long wave in V.F. (+ ·0006). $18\frac{3}{4}^{h}$ to 20^{h} Wave in Dec. (− 5′) : in H.F. (+ ·002).

6^{d} 14^{h} to $15\frac{1}{2}^{h}$ Wave in H.F. (+ ·0015).

7^{d} 15^{h} to 22^{h} Small fluctuations in H.F.

8^{d} 3^{h} to 9^{d} 2^{h} Fluctuations in Dec. (± 3′) : in H.F. (± ·001). 8^{d} 3^{h} to 7^{h} Irregular wave in Dec. (− 10′), with small superposed fluctuations. 8^{d} 2^{h} to 4^{h} Decrease of V.F. (− ·0008). 8^{d} 13^{h} to 17^{h} Two successive waves in H.F. (+ ·0025 and + ·003), with superposed fluctuations. 8^{d} 12^{h} to 9^{d} 2^{h} Long wave in V.F. (+ ·001).

9^{d} $15\frac{1}{2}^{h}$ to 18^{h} Wave in H.F. (− ·003). 20^{h} to 22^{h} Wave in Dec. (− 4′): in H.F. (+ ·0015).

10^{d} 22^{h} to 11^{d} 2^{h} Double wave in Dec. (+ 4′ to − 5′). 11^{d} 1^{h} to 3^{h} Wave in H.F. (+ ·001).

12^{d} 21^{h} to 23^{h} Wave in Dec. (− 5′).

13^{d} 3^{h} to 22^{h} Small fluctuations in Dec., H.F. and V.F. 16^{h} to 23^{h} Long irregular wave in H.F. (+ ·003), with small superposed fluctuations.

15^{d} $2\frac{1}{2}^{h}$ to 23^{h} Small rapid fluctuations in Dec. : in H.F. (± ·0015) : in V.F. small.

17^{d} 3^{h} to 16^{h} Small fluctuations in Dec. with wave 3^{h} to 7^{h} (+ 14′) : in H.F. (± ·001), with wave 4^{h} to 6^{h} (+ ·0025). 4^{h} to 8^{h} Wave in V.F. (− ·0005).

18^{d} 0^{h} to 19^{h} Fluctuations in Dec. (± 3′) : in H.F. (± ·001). 1^{h} to 3^{h} Wave in H.F. (− ·002). Decrease of Dec. (− 10′) : decrease of V.F. (− ·0006).

19^{d} 0^{h} to 19^{h} Fluctuations in Dec. (± 3′) : in H.F. (± ·0015) : long wave in V.F. (− ·0015).

20^{d} 5^{h} to 21^{d} 5^{h}. See Plate IX.

22^{d} 2^{h} to 8^{h} Small fluctuations in Dec. and H.F. : wave in V.F. (− ·0006).

1894.

July 23d 0h to 3h Small fluctuations in Dec. and H.F. 2h to 3h Sharp wave in Dec. (− 5′): in H.F. (− ·002): in V.F. small.

24d 3h to 11h Fluctuations in Dec. (± 3′): in H.F. and V.F. small. 4h to 7h Very shallow wave in H.F. (+ ·002). 4h to 5h Wave in V.F. (+ ·0004).

25d 0h to 3h Double wave in Dec. (+ 5′ to − 5′): wave in V.F. (− ·0005).

25d 12h to 21h Small fluctuations in Dec., H.F. and V.F. Long wave in V.F. (+ ·001). 12½h to 14½h Wave in H.F. (− ·0025). 18h to 21h Wave in Dec. (− 5′).

27d 0h to 5h Small fluctuations in Dec. and H.F. Wave in V.F. (− ·0006).

27d 14h to 23h Small fluctuations in Dec., H.F. and V.F.

28d 13h to 23h Fluctuations in Dec. (± 3′): in H.F. (± ·0015). Long wave in V.F. (+ ·0007), with superposed fluctuations.

29d 12h to 30d 4h Small fluctuations in Dec., H.F. and V.F.

30d 13h to 20h Small fluctuations in H.F. and V.F.

August 2d 1h to 3h Two successive waves in Dec. (+ 3′ and + 3′): small fluctuations in H.F. and V.F.

3d 21h to 23h Wave in Dec. (− 3′).

4d 2h to 18h Small fluctuations in Dec., H.F. and V.F.

4d 23h to 5d 1h Wave in Dec. (− 7′): in H.F. (+ ·002): in V.F. (− ·0006).

5d 5h to 7h Wave in Dec. (− 7′): small fluctuations in H.F. and V.F.

5d 22h to 6d 2h Wave in Dec. (− 5′): small fluctuations in H.F. and V.F.

7d 3h to 5h Wave in Dec. (+ 4′): in H.F. (+ ·001).

8d 16h to 18h Wave in H.F. (+ ·0015).

9d 3h to 18h Small fluctuations in Dec.: in H.F. (± ·001). 3h to 5h Decrease of V.F. (− ·0003).

10d 13h to 22h Small fluctuations in H.F.

11d 2h to 4h Double wave in Dec. (+ 4′ and − 3′): small fluctuations in H.F.: decrease of V.F. (− ·0003).

11d 12h to 18h Small fluctuations in H.F.

12d 0h to 3½h Wave in Dec. (− 6′): small fluctuations in H.F.

12d 15h to 21h Small fluctuations in H.F.

13d 14h to 20h Fluctuations in H.F. (± ·001). 19h to 21h Wave in Dec. (− 10′): in V.F. (+ ·0005).

14d 12h to 22h Small fluctuations in Dec. and H.F. 15h to 21h Wave in V.F. (+ ·0007).

15d 1h to 22h Small fluctuations in Dec.: in H.F. (± ·001), with waves 15½h to 17h (− ·003), 19½h to 21h (+ ·003): very small fluctuations in V.F.

16d 0h to 2h Irregular wave in Dec. (+ 3′): in H.F. (+ ·001): in V.F. (− ·0007).

19d 23h to 20d 23h. See Plate X.

21d 1h to 6h Small rapid fluctuations in Dec., H.F. and V.F. 1¾h to 2h Sharp wave in Dec. (+ 6′): in H.F. (+ ·002): in V.F. (+ ·0003).

21d 15h to 20h Small fluctuations in Dec., H.F. and V.F.

21d 23½h to 22d 1h Wave in Dec. (+ 6′).

22d 2h to 18h Small rapid fluctuations in Dec., H.F. and V.F.

23d 1½h to 3h Wave in Dec. (+ 4′).

23d 15h to 17h Double wave in H.F. (+ ·001 to − ·0015).

24d 0h to 23h Occasional fluctuations in Dec. (± 3′): in H.F. (± ·001). 2h to 7h Two successive waves in Dec. (+ 5′ and + 4′). 2h to 5h Wave in H.F. (+ ·002): in V.F. (− ·0004). 18h to 20h Wave in Dec. (− 6′). 22½h to 23½h Wave in H.F. (+ ·0015).

25d 0h to 23h Small fluctuations in Dec., H.F. and V.F., with wave in Dec. 1h to 3h (+ 7′): 14½h to 16h Double wave in H.F. (+ ·0014 to − ·0014). 20½h to 21½h Wave in Dec. (− 6′): in H.F. (+ ·0012): decrease of V.F. (− ·0003).

26d 3h to 23h Small fluctuations in H.F.

27d 0h to 2h Wave in Dec. (+ 6′): small fluctuations in H.F. and V.F.

27d 14h to 18h Small fluctuations in H.F.

29d 0h to 2h Wave in Dec. (+ 8′): in H.F. (+ ·0025). 0h to 6h Wave in V.F. (− ·0005).

1894.

September 1^d 3^h to $4\frac{1}{2}^h$ Wave in Dec. (+ 4′): in H.F. (– ·0015).

2^d 0^h to 2^h Wave in Dec. (+ 4′): in H.F. (+ ·0015): decrease of V.F. (– ·0006).

5^d 0^h to 11^h Small fluctuations in Dec., H.F. and V.F.

9^d 15^h to 23^h Small fluctuations in Dec., H.F. and V.F. $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Wave in H.F. (+ ·0015).

10^d 12^h to 11^d 9^h Fluctuations in Dec. (± 3′): in H.F. (± ·0015): in V.F. small.

11^d 14^h to 23^h Fluctuations in Dec., H.F. and V.F. $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Wave in Dec. (– 5′): in H.F. (– ·002). $21\frac{1}{2}^h$ to 23^h Wave in H.F. (+ ·0025).

12^d 12^h to 20^h Small rapid fluctuations in Dec., H.F. and V.F. $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Wave in Dec. (– 4′): in H.F. (+ ·002).

14^d 1^h to 12^h Small rapid fluctuations in Dec., H.F. and V.F. 1^h to $1\frac{1}{4}^h$ Sharp wave in H.F. (+ ·003).

14^d 12^h to 15^d 12^h. See Plate XI.

15^d 21^h to 22^h Decrease of H.F. (– ·002).

16^d 0^h to 3^h Small fluctuations in Dec. and H.F.

16^d 13^h to 17^d 5^h Small fluctuations in Dec. and H.F. 17^d 0^h to 1^h Wave in Dec. (+ 5′): in H.F. (+ ·001): decrease of V.F. (– ·0003).

17^d 20^h to 23^h Small fluctuations in Dec. and H.F. $21\frac{1}{2}^h$ to $21\frac{3}{4}^h$ Decrease of V.F. (– ·0003).

18^d 18^h to 19^d 12^h Fluctuations in Dec. (± 4′), with wave 19^d $5\frac{1}{2}^h$ to 7^h (+ 6′): in H.F. (± ·001), with wave 18^d 20^h to $21\frac{1}{2}^h$ (+ ·003), and double wave 19^d 5^h to 7^h (– ·0015 to + ·0012). 18^d 19^h to $21\frac{1}{2}^h$ Decrease of V.F. (– ·001).

19^d 12^h to 21^d 12^h. See Plates XI. and XII.

21^d 16^h to $19\frac{1}{2}^h$ Two successive waves in Dec. (– 5′ and – 3′): in H.F. (+ ·003 and + ·0015): small fluctuations in V.F. 21^h to $22\frac{1}{2}^h$ Wave in H.F. (+ ·0025).

22^d 5^h to 7^h Wave in H.F. (+ ·003).

22^d 12^h to 19^h Small fluctuations in Dec.: in H.F. (± ·001).

22^d $23\frac{1}{2}^h$ to 23^d 1^h Double wave in Dec. (+ 3′ to – 3′): wave in H.F. (+ ·0015): in V.F. (– ·0003).

23^d 2^h to 4^h Wave in Dec. (+ 7′). 2^h to 5^h Wave in H.F. (+ ·003): in V.F. (– ·0008). 6^h to 8^h Wave in Dec. (+ 6′). $6\frac{1}{2}^h$ to $9\frac{1}{2}^h$ Wave in H.F. (+ ·002).

23^d 15^h to 23^h Small fluctuations in Dec.: in H.F. (± ·001): long wave in V.F. (+ ·0004).

25^d $18\frac{1}{2}^h$ to 20^h Wave in Dec. (– 3′): in H.F. (– ·002). $21\frac{3}{4}^h$ to 23^h Wave in Dec. (+ 4′): in H.F. (+ ·001): decrease of V.F. (– ·0004).

27^d 18^h to 28^d 11^h Small fluctuations in Dec. and H.F. 27^d 23^h to 28^d 0^h Wave in Dec. (+ 7′). 27^d 23^h to $23\frac{1}{2}^h$ Sharp wave in H.F. (+ ·003): in V.F. small.

29^d 18^h to 20^h Wave in Dec. (– 7′): in H.F. (+ ·001).

30^d 11^h to 22^h Small fluctuations in Dec. and H.F. $14\frac{1}{2}^h$ to $15\frac{1}{2}^h$ Double wave in H.F. (+ ·001 to – ·001). 15^h to 17^h Wave in V.F. (+ ·0005).

October 1^d 21^h to 23^h Wave in Dec. (– 5′): in H.F. (+ ·0015): in V.F. small.

2^d 13^h to 3^d 3^h Small fluctuations in Dec. and H.F. 2^d $23\frac{1}{2}^h$ to 3^d 2^h Wave in Dec. (– 7′): double wave in H.F (+ ·002 to – ·001): in V.F. (– ·0004).

4^d $11\frac{1}{2}^h$ to 23^h Small fluctuations in Dec., with waves $12\frac{1}{2}^h$ to 13^h (+ 5′) and $21\frac{1}{2}^h$ to 23^h (– 6′): fluctuations in H.F. (± ·001), with waves 12^h to 13^h (+ ·0016) and 21^h to $22\frac{1}{2}^h$ (– ·002): in V.F. small.

5^d 2^h to 15^h Fluctuations in Dec. (± 5′), with three successive waves 4^h to $7\frac{1}{2}^h$ (+ 8′, + 4′, and + 7′). 4^h to 8^h Double wave in H.F. (+ ·0015 to – ·002): wave in V.F. (– ·0005).

6^d 20^h to 23^h Small fluctuations in Dec. and H.F. 21^h to 22^h Wave in Dec. (– 5′): in H.F. (+ ·002).

7^d $0\frac{1}{2}^h$ to 2^h Wave in H.F. (+ ·002). 6^h to 15^h Small fluctuations in Dec. and H.F. 21^h to 22^h Wave in Dec. (– 4′): in H.F. (+ ·002).

8^d 12^h to 22^h Small fluctuations in Dec. and H.F. $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Wave in Dec. (– 4′): in H.F. (+ ·002).

9^d 9^h to 15^h Small fluctuations in Dec. and H.F.

11^d 22^h to $23\frac{1}{2}^h$ Wave in Dec. (– 5′) in H.F. (+ ·001).

13^d 19^h to 14^d 8^h Small fluctuations in Dec. and H.F.

1894.

October 16d 2h to 3h Wave in Dec. (+ 5′). 5h to 6h Wave in Dec. (+ 5′). 4h to 6h Wave in H.F. (− ·0016). 8h to 9h Wave in Dec. (+ 5′). 8h to 18h Small fluctuations in Dec., H.F. and V.F.

16d 19½h to 23h Wave in Dec. (− 22′): in H.F. (+ ·004): in V.F. (+ ·0003), followed by small fluctuations.

17d 1h to 2½h Wave in Dec. (+ 13′): in H.F. (+ ·002): in V.F. (− ·0005), followed till 11h by small rapid fluctuations in Dec., H.F. and V.F.

17d 17½h to 18½h Wave in Dec. (− 9′): double wave in H.F. (− ·0014 to + ·0014), followed till 23h by small fluctuations in both Dec. and H.F.

18d 7h to 23h Small fluctuations in Dec., H.F. and V.F. 18h to 23h Irregular wave in Dec. (− 11′), also in H.F. (+ ·003), with small superposed fluctuations in both curves.

19d 3½h to 5h Wave in Dec. (+ 5′).

19d 18h to 20h Two successive waves in Dec. (− 4′ and − 10′): fluctuations in H.F. (± ·0015), with double wave 18½h to 19½h (− ·0016 to + ·0012): wave in V.F. (− ·0003). 21½h to 23h Wave in H.F. (+ ·003), steep at commencement.

20d 0h to 1½h Wave in Dec. (+ 8′): in V.F. (− ·0004). 16½h to 17½h Wave in Dec. (− 3′): in H.F. (− ·001).

22d 0h to 1½h Wave in Dec. (+ 6′): in H.F. and V.F. small. 21h to 23h Two successive waves in Dec. (− 5′ and − 3′): in H.F. and V.F. small.

24d 19h to 22h Two successive waves in Dec. (− 4′ and − 4′). 19h to 20¾h Wave in H.F. (+ ·003): decrease of V.F. (− ·0003).

25d 19½h to 21h Wave in Dec. (− 17′). 18½h to 22h Wave in H.F. (− ·004): in V.F. (+ ·0006).

26d 0h to 10h Fluctuations in Dec. (± 3′): in H.F. small: long wave in V.F. (− ·0008). 0½h to 2h Wave in Dec. (− 6′). 3h to 6h Two successive waves in Dec. (+ 6′ and + 4′).

26d 19h to 21h Wave in Dec. (− 4′). Small fluctuations in H.F.

27d 17h to 23h Fluctuations in Dec. (± 3′), with waves 17½h to 19h (− 7′). 20¼h to 21½h (− 15′): in H.F. (± ·001), with wave 17h to 18½h (− ·002), and double wave 20h to 21¼h (− ·003 to + ·004): 21½h to 22h Wave (− ·0036). 20¼h to 22h Wave in V.F. (− ·0005).

30d 3h to 5h Wave in Dec. (− 5′).

30d 21h to 31d 1h Irregular wave in Dec., (− 15′): double wave in H.F. (− ·0025 to + ·0015), with small superposed fluctuations. 31d 0h to 2h Decrease of V.F. (− ·0006).

31d 12h to 24h Small fluctuations in Dec., with waves 18h to 19½h (−6′), 22h to 24h (− 9′): fluctuations in H.F. and V.F.

November 1d 20h to 23h Small fluctuations in Dec.: wave in H.F. (+ ·002): decrease of V.F. (− ·0003).

2d 19h to 23h Small fluctuations in Dec. and H.F.

3d 2h to 15h Fluctuations in Dec. and H.F. with wave, 13h to 15h: in H.F. (− ·002).

6d 20h to 23h Wave in Dec. (− 7′): in H.F. (+ ·002): small decrease of V.F.

7d 16h to 23h Small fluctuations in Dec., H.F. and V.F. 16h to 18½h Wave in Dec. (− 9′): in H.F. (− ·0015). 21h to 22½h Wave in Dec. (+ 4′): in H.F. (+ ·0035): in V.F. (− ·0003).

8d 0h to 2h Wave in Dec. (+ 6′): in H.F. (+ ·0015). 0h to 4h Wave in V.F. (− ·0003).

8d 15½h to 17h Wave in Dec. (− 8′): fluctuations in H.F. (± ·001). 15h to 19h Wave in V.F. (+ ·0004).

9d 17½h to 18½h Wave in Dec. (− 6′): in H.F. (+ ·0012): in V.F. small.

10d 17h to 19h Wave in Dec. (− 5′): in H.F. (− ·001).

11d 15½h to 17h Wave in Dec. (− 6′).

12d 19h to 22h Two successive waves in Dec. (− 3′ and −4′).

13d 12h to 14d 12h. See Plate XII.

14d 17h to 15d 1h Small fluctuations in Dec. and H.F. 14d 22h to 15d 0½h Wave in H.F. (+ ·003).

15d 17h to 16d 6h Fluctuations in Dec. (± 3′): in H.F. (± ·001). 16d 3h to 6h Wave in H.F. (+ ·0025). 15d 23h to 16d 10h Long wave in V.F. (− ·0007).

16d 16h to 17d 2h Fluctuations in Dec. (± 5′), with double wave 17½h to 20h (+ 7′ to − 10′): in H.F. (± ·001), with wave 19h to 20½h (+ ·0035): long irregular wave in V.F. (+ ·001), with small superposed fluctuations.

1894.

November 17^d 12^h to 23^h Small fluctuations in Dec. with waves 14^h to 16^h (− 9′), 17^h to 19^h (− 11′): in H.F. (± ·001), with double wave 17^h to 19^h (− ·0015 to + ·002): long irregular wave in V.F. (+ ·001).

18^d $1\frac{1}{2}^h$ to 4^h Wave in Dec. (− 6′): small fluctuations in H.F.

18^d 13^h to 23^h Rapid fluctuations in Dec. (± 6′): in H.F. (± ·0025): long wave in V.F. (+ ·0016).

19^d 0^h to $1\frac{1}{2}^h$ Wave in Dec. (+ 8′). 13^h to $14\frac{1}{2}^h$ Wave in Dec. (− 6′): in H.F. (− ·002): increase of V.F. (+ ·0003). 20^h to 23^h Fluctuations in Dec. (± 5′): irregular wave in H.F. (+ ·003): in V.F. (− ·0005).

20^d $1\frac{3}{4}^h$ to $3\frac{1}{2}^h$ Wave in Dec. (+ 10′): in H.F. (+ ·0015): in V.F. (− ·0004).

23^d 13^h to 22^h Fluctuations in Dec. (± 3′), with double wave $18\frac{1}{2}^h$ to 21^h (+ 6′ to − 13′): no register of H.F.: sharp wave in V.F. (+ ·0015).

24^d 0^h to 2^h Wave in Dec. (− 7′): in H.F. (+ ·002): in V.F. small, followed till 11^h by small fluctuations in Dec., H.F. and V.F.

24^d 12^h to 21^h Fluctuations in Dec. (± 5′): in H.F. (± ·001), in V.F. small. $15\frac{1}{2}^h$ to 16^h Two successive waves in Dec. (− 6′ and − 13′): double wave in H.F. (+ ·0045 to − ·0028): two successive waves in V.F. (+ ·0004 and + ·0004). $18\frac{1}{2}^h$ Decrease in Dec. (− 7′): in H.F. (− ·0015). 19^h to $20\frac{1}{2}^h$ Double wave in Dec. (+ 11′ to − 11′): double wave in H.F. (+ ·004 to − ·003): double wave in V.F. (+ ·0003 to − ·0004). 22^h to 24^h Wave in Dec. (− 9′).

25^d 3^h to $4\frac{1}{2}^h$ Wave in Dec. (+ 4′): in H.F. (+ ·002): slight decrease of V.F.

25^d 17^h to 24^h Fluctuations in Dec. (± 3′), with wave $17\frac{1}{2}^h$ to 20^h (− 13′): in H.F. (± ·001): in V.F. small. 22^h to 23^h Wave in Dec. (+ 7′): in H.F. (+ ·0018): in V.F. small.

26^d 3^h to $4\frac{1}{2}^h$ Wave in H.F. (− ·0012).

26^d 21^h to 27^d 1^h Small fluctuations in Dec. and H.F.

27^d 19^h to 23^h Small fluctuations in Dec. and H.F. $19\frac{1}{2}^h$ to 21^h Wave in Dec. (− 5′): in H.F. (+ ·0015).

27^d 23^h to 28^d 2^h Wave in Dec. (− 6′).

28^d 15^h to 18^h Small fluctuations in Dec.: wave in H.F. (− ·002).

28^d 22^h to 29^d 1^h Wave in Dec. (− 7′). $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in H.F. (+ ·0015). Small decrease of V.F.

29^d 23^h to 30^d 8^h Small fluctuations in Dec., H.F. and V.F.

30^d 16^h to 23^h Fluctuations in Dec. (± 3′): in H.F. (± ·001): in V.F. small. $17\frac{3}{4}^h$ to $19\frac{1}{4}^h$ Wave in H.F. (+ ·0025). $21\frac{1}{2}^h$ to 23^h Wave in Dec. (− 7′).

December 1^d $22\frac{1}{2}^h$ to 2^d 2^h Small fluctuations in Dec.: wave in H.F. (+ ·0012): small decrease of V.F.

2^d 21^h to 24^h Small fluctuations in Dec.: two successive waves in H.F. (+ ·0015 and + ·001).

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

5^d 13^h to 22^h Fluctuations in Dec. (± 3′): in H.F. small. 17^h to 20^h Wave in H.F. (− ·0015). 20^h to 21^h Wave in Dec. (− 7′). $22\frac{1}{2}^h$ to 24^h Double wave in Dec. (+ 4′ to − 4′): wave in H.F. (+ ·001): wave in V.F. (− ·0003).

6^d 18^h to 7^d 1^h Fluctuations in Dec. (± 3′): in H.F. (± ·001). Irregular wave in V.F. (+ ·0006). 6^d 22^h to 7^d 1^h Wave in Dec. (− 10′), with superposed fluctuations: double wave in H.F. (+ ·0015 to − ·002).

7^d $2\frac{1}{2}^h$ to 3^h Increase of Dec. (+ 6′).

7^d 18^h to 8^d 2^h Small fluctuations in Dec. and H.F. 8^d 0^h to 1^h Increase of Dec. (+ 5′): wave in H.F. (+ ·0014): slight decrease of V.F.

8^d $14\frac{1}{2}^h$ to 19^h Two successive waves in Dec. (− 4′ and − 5′): and in H.F. (− ·0015 and − ·001). 15^h to 16^h Increase of V.F. (+ ·0003). $20\frac{1}{2}^h$ to 23^h Two successive waves in Dec. (− 4′ and − 5′): $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Wave in H.F. (+ ·001): in V.F. small.

9^d 21^h to 22^h Decrease of Dec. (− 8′). 22^h to 23^h Wave in H.F. (+ ·001).

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

13^d 16^h to 17^h Wave in Dec. (− 5′): in H.F. (− ·0015). $19\frac{3}{4}^h$ to $23\frac{1}{2}^h$ Two successive waves in Dec. (− 10′ and − 15′): three successive waves in H.F. (− ·003, − ·0046, and − ·0024). 20^h to 21^h Wave in V.F. (+ ·0004).

14^d $2\frac{1}{2}^h$ to 5^h Double wave in Dec. (− 3′ to + 5′): in H.F. (+ ·001 to − ·001): two successive waves in V.F. (− ·0003 and − ·0003).

1894.

December 14^d 18^h to $19\frac{1}{2}^h$ Wave in Dec. (− 6′): double wave in H.F. (− ·001 to + ·001).

14^d $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (− 3′): in H.F. (+ ·0015).

15^d 2^h to 13^h Small fluctuations in Dec., H.F. and V.F.

15^d $16\frac{1}{2}^h$ to 18^h Wave in Dec. (− 20′). $13\frac{1}{2}^h$ to 19^h Double wave in H.F. (+ ·0025 to − ·0025). 16^h to 20^h Wave in V.F. (+ ·001), followed by active fluctuations in Dec. and H.F. until 16^d 13^h.

17^d $20\frac{3}{4}^h$ to 22^h Wave in H.F. (+ ·002).

18^d 17^h to $18\frac{1}{2}^h$ Wave in Dec. (− 4′): in H.F. (− ·001): in V.F. small. 21^h to $23\frac{1}{2}^h$ Wave in Dec. (− 5′).

19^d $16\frac{1}{2}^h$ to 18^h Wave in Dec. (− 3′).

19^d $22\frac{1}{2}^h$ to 24^h Double wave in Dec. (+ 3′ to − 3′): wave in H.F. (+ ·001). $22\frac{3}{4}^h$ to 23^h Slight decrease of V.F.

20^d 21^h to 21^d 2^h Wave in Dec. (+ 5′), with small superposed fluctuations: fluctuations in H.F. (± ·001). 20^d 23^h to $23\frac{1}{2}^h$ Slight decrease of V.F.

21^d 12^h to 21^h Small fluctuations in Dec. and H.F. $18\frac{1}{2}^h$ to 21^h Two successive waves in H.F. (− ·0025 and − ·002). 19^h to $19\frac{1}{2}^h$ Decrease in Dec. (− 8′). 18^h to 23^h Wave in V.F. (+ ·0004).

22^d 2^h to 13^h Fluctuations in Dec. (± 3′): in H.F. and V.F. small.

22^d $23\frac{1}{2}^h$ to 23^d $0\frac{1}{2}^h$ Wave in Dec. (− 6′): in H.F (+ ·002): slight decrease of V.F.

24^d 2^h to 17^h Small fluctuations in Dec. and H.F.

30^d 21^h to 23^h Wave in Dec. (− 4′).

EXPLANATION OF THE PLATES.

The magnetic motions figured on the Plates are—

(1.) Those for days of great disturbance—February 23–24, 24–25, 25–26, 28–March 1, 30–31, 31–April 1, July 20–21, August 20, September 14–15, November 13–14.

(2.) Those for days of lesser disturbance—January 3–4, 11–12, February 20–21, 21–22, 22–23, March 21–22, 22–23, April 17–18, June 9–10, 10–11, July 2–3, September 19–20, 20–21.

(3.) Those for four quiet days, January 16, March 28, August 18, November 22, 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 $0^{\text{in}}{\cdot}81 = 20^{\text{mm}}{\cdot}5$ in the declination curve, by $0^{\text{in}}{\cdot}75 = 18^{\text{mm}}{\cdot}9$ in the horizontal force curve, and by $0^{\text{in}}{\cdot}79 = 20^{\text{mm}}{\cdot}1$ in the vertical force curve.

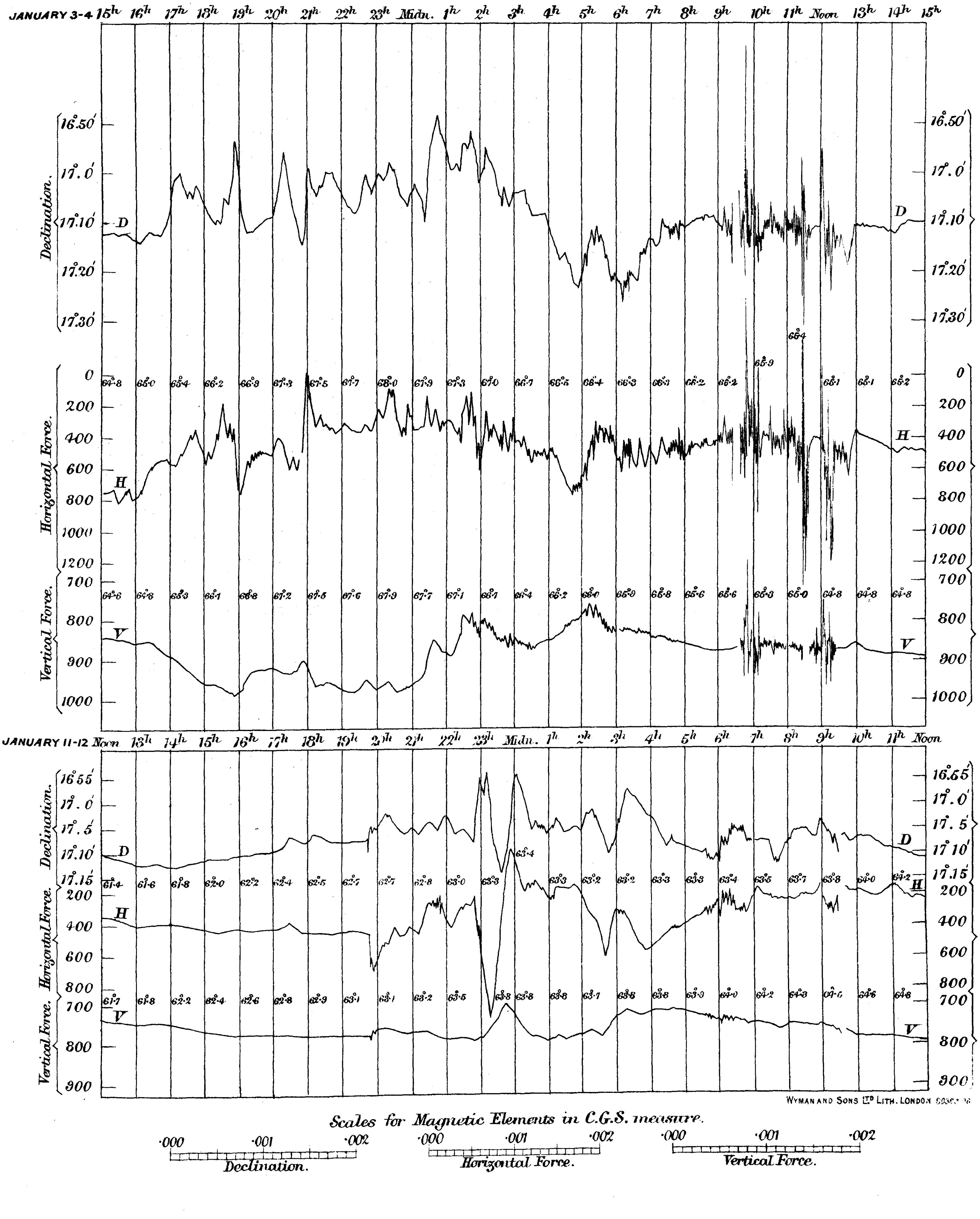
Downward motion indicates increase of declination and of horizontal and vertical force.

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.

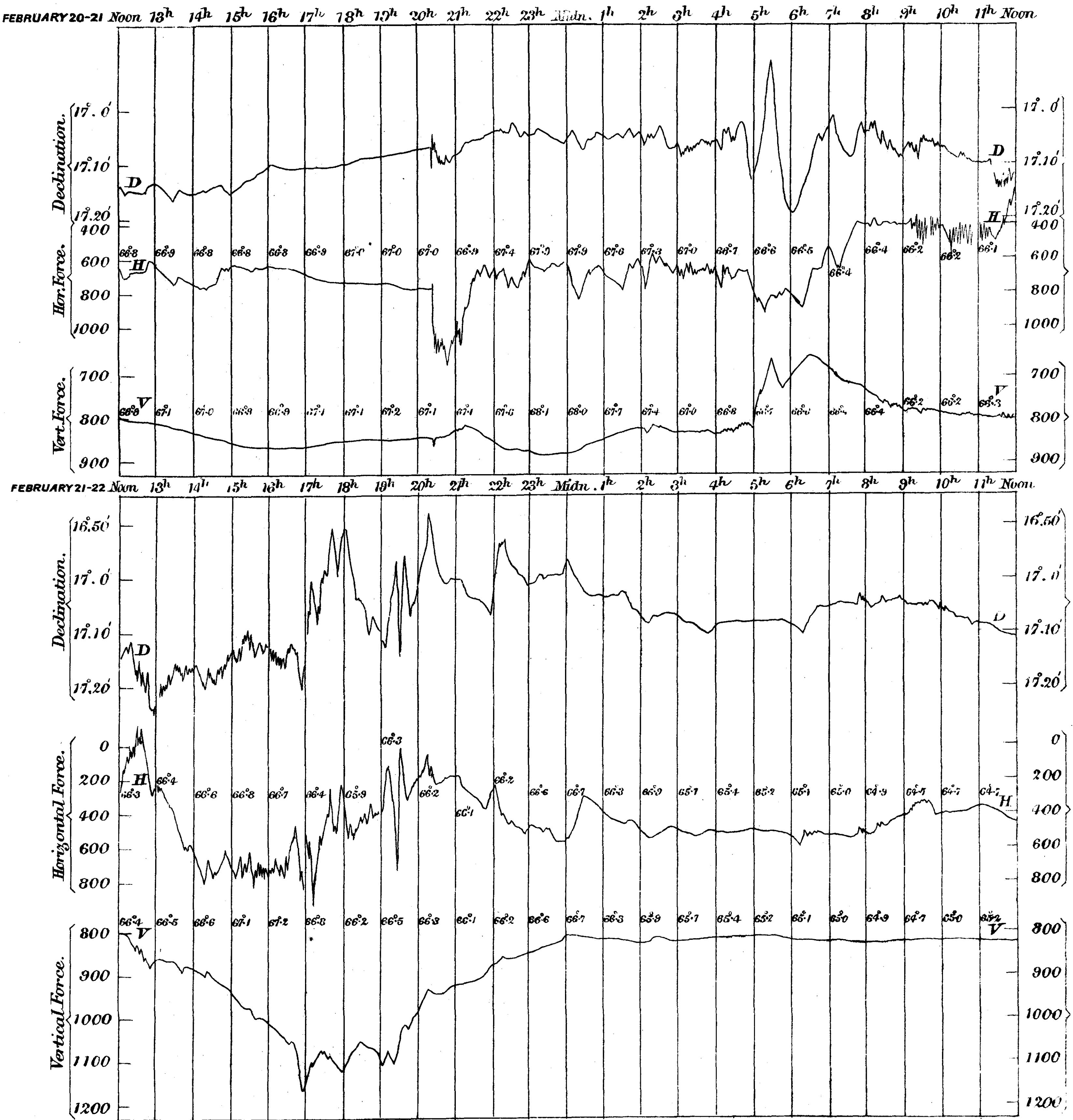
An arrow (↑) indicates that the register was out of range of registration in the direction of the arrow head.

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, 1894.

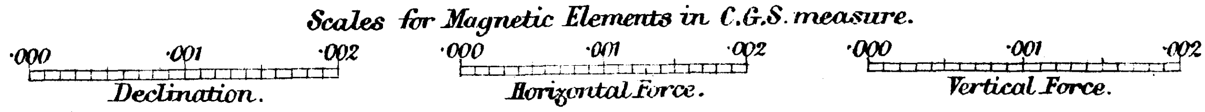


Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1894.

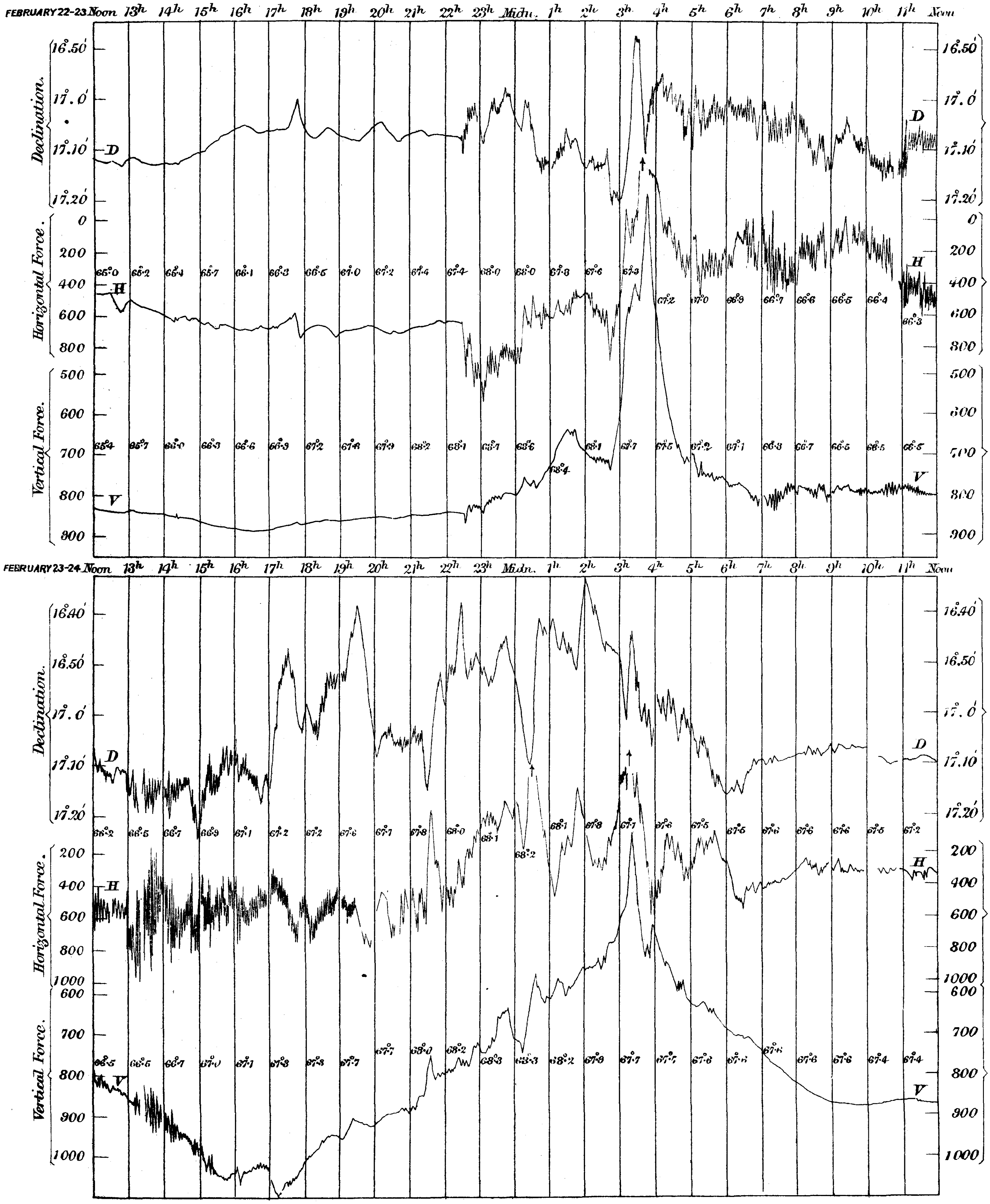


WYMAN AND SONS, Ltd. LITH LONDON 8036.3.96

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

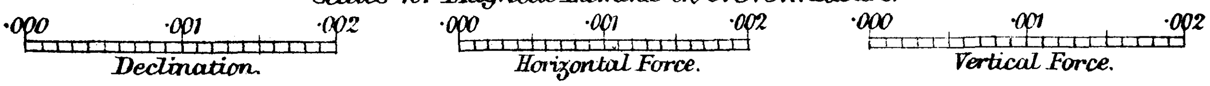


Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1894.

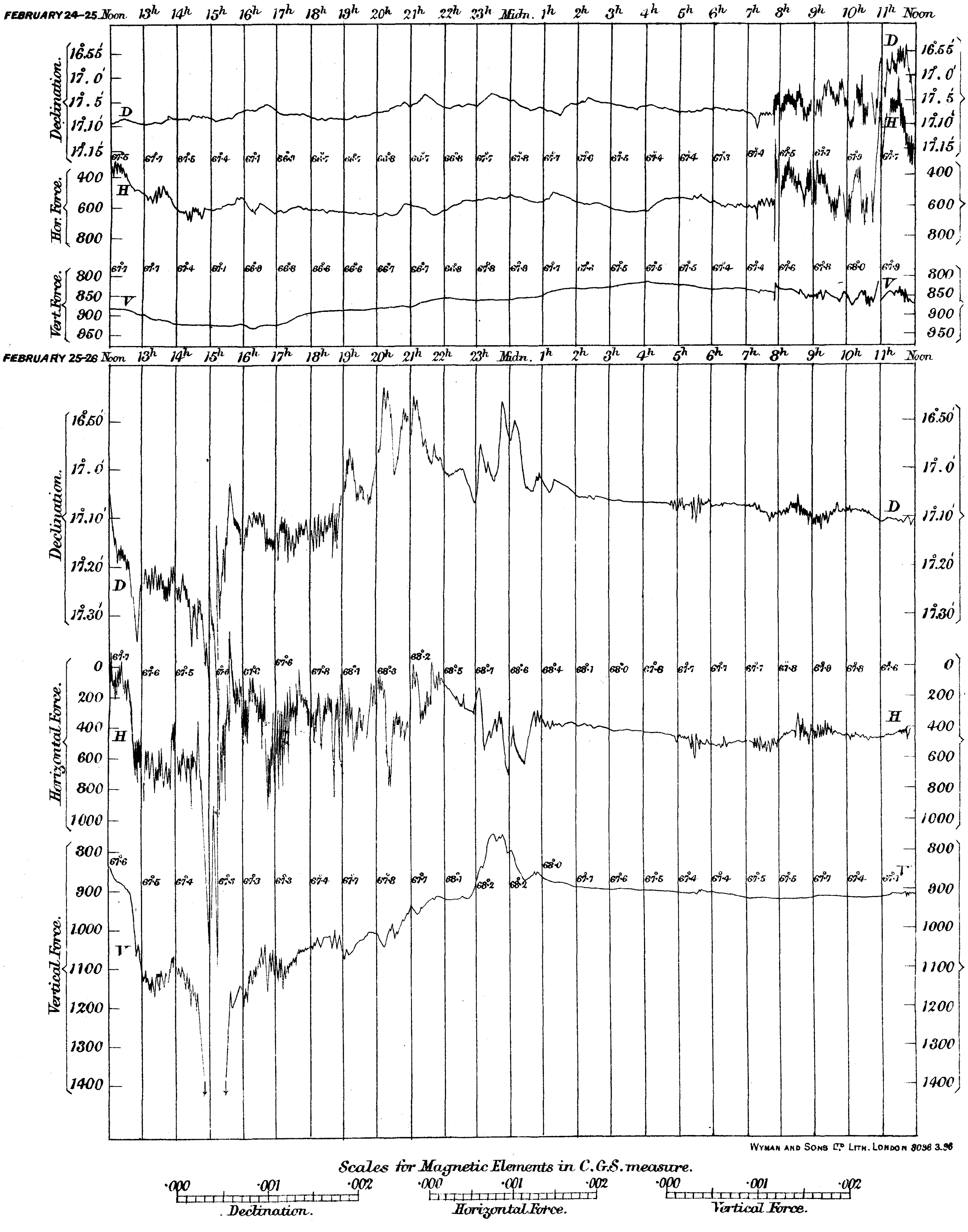


Wyman and Sons Ltd. Lith London 8036.3.96.

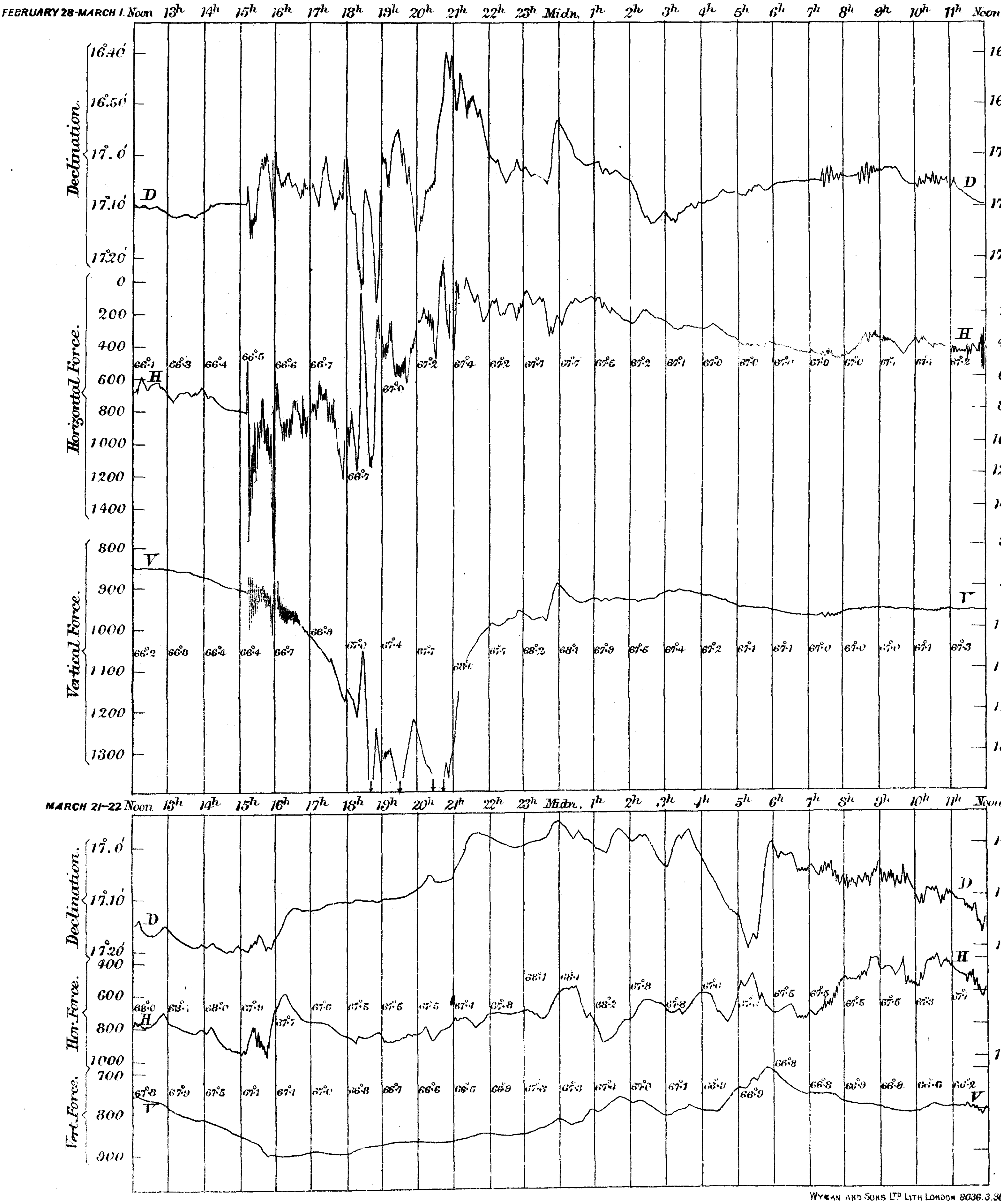
Scales for Magnetic Elements in C.G.S. measure.



Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1894.

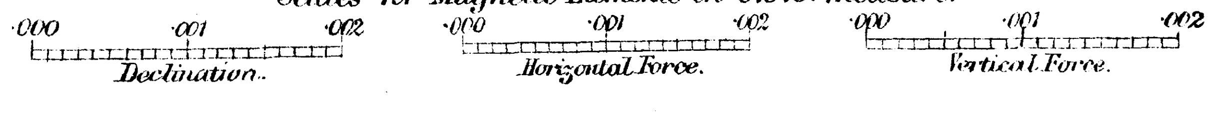


Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1894.

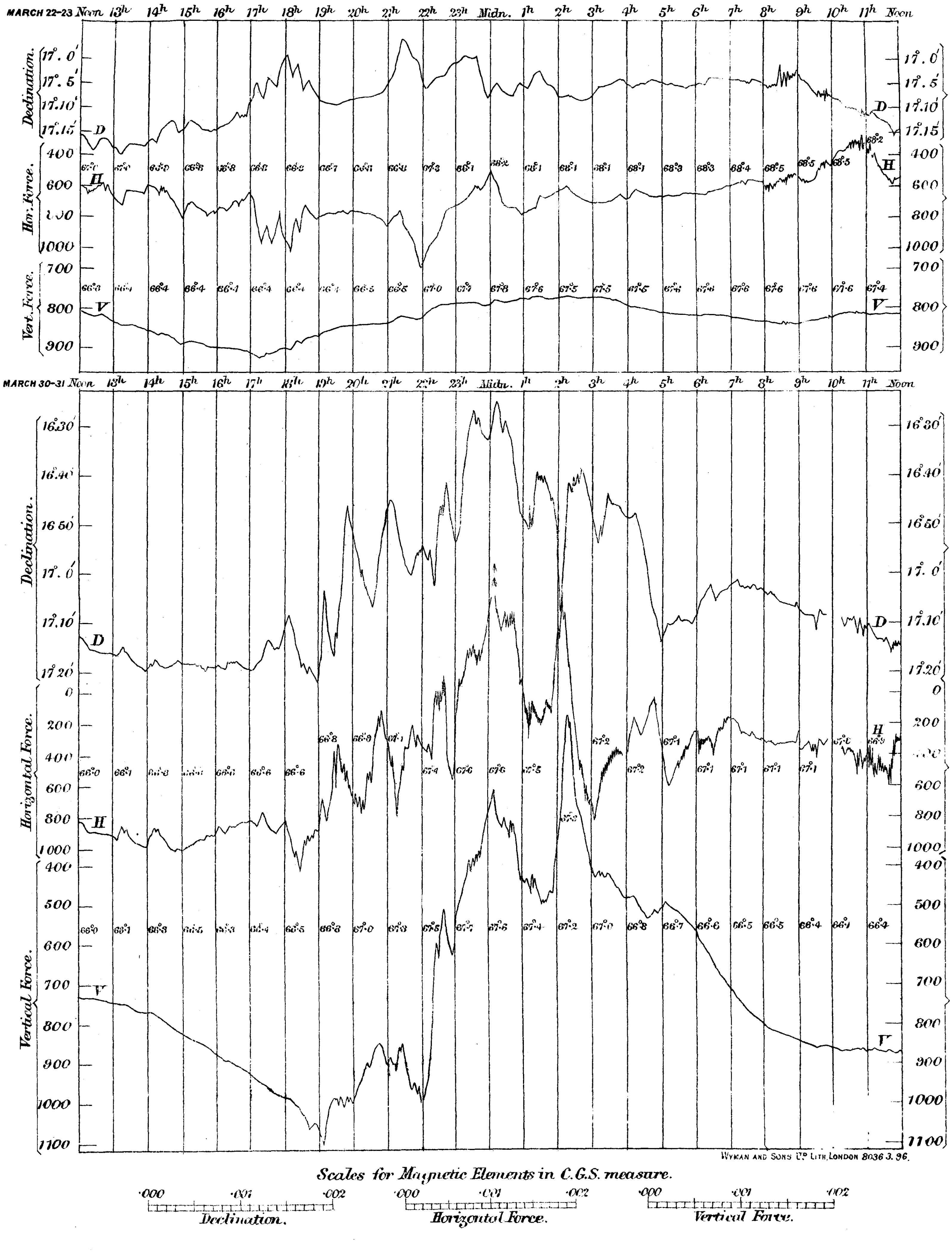


WYMAN AND SONS LTD LITH LONDON 8036.3.96

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



Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1894.



WYMAN AND SONS L^TD LITH. LONDON 8036 3. 96.

Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1894.

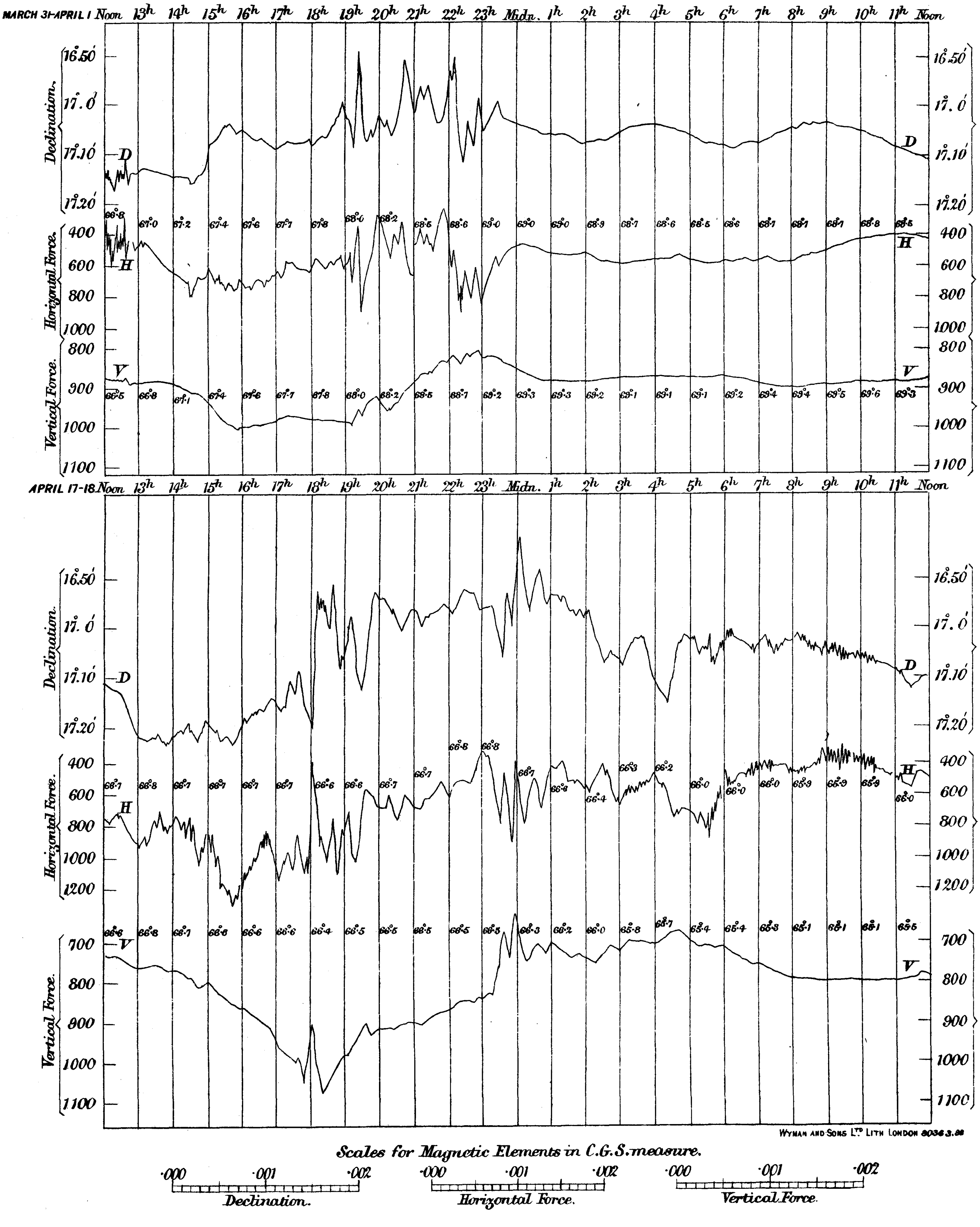
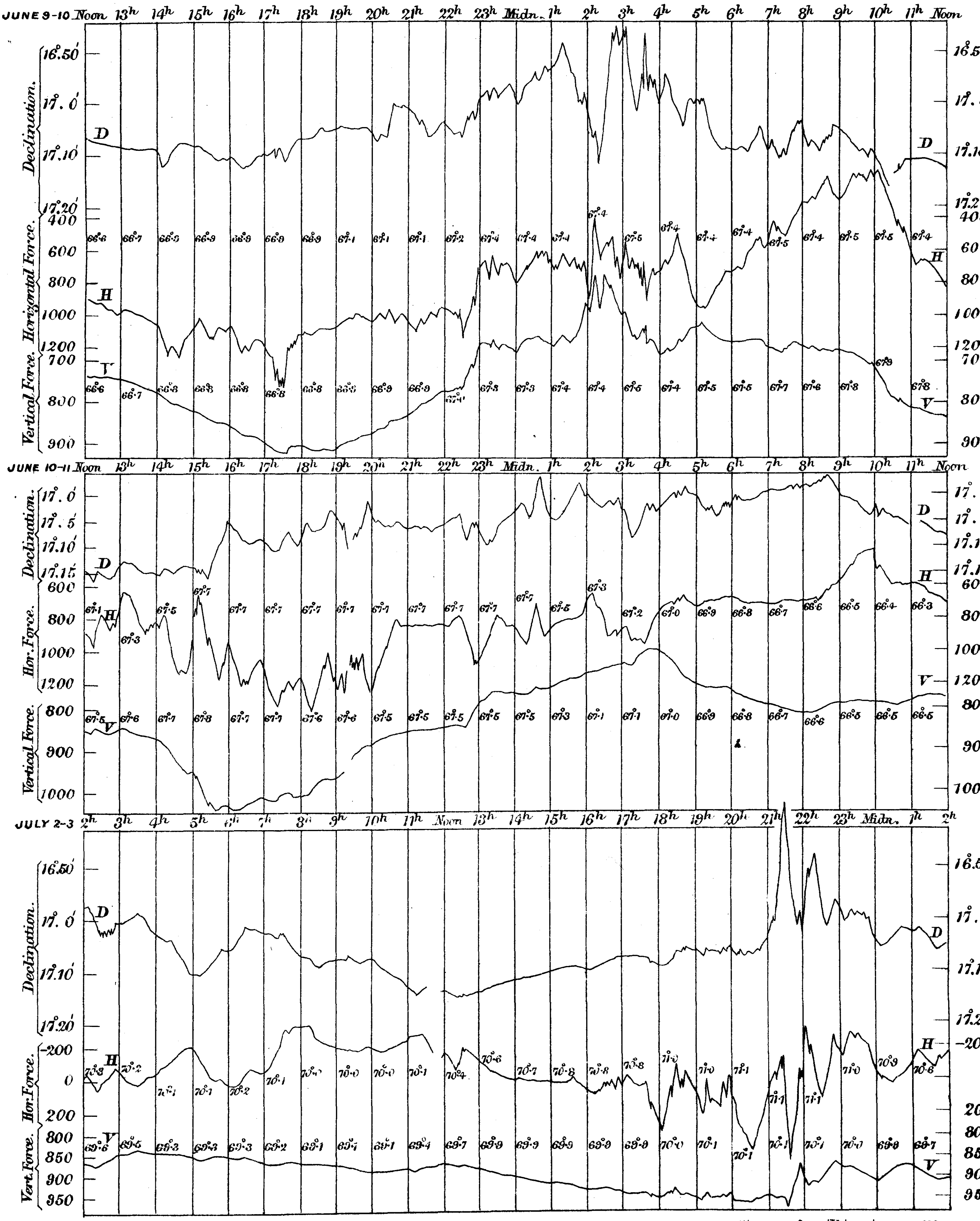


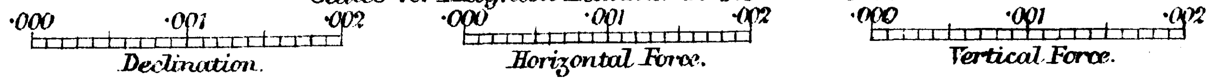
Plate VIII.

Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1894.



WYMAN AND SONS. LTD LITH. LONDON. 8036.3.

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



Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1894.

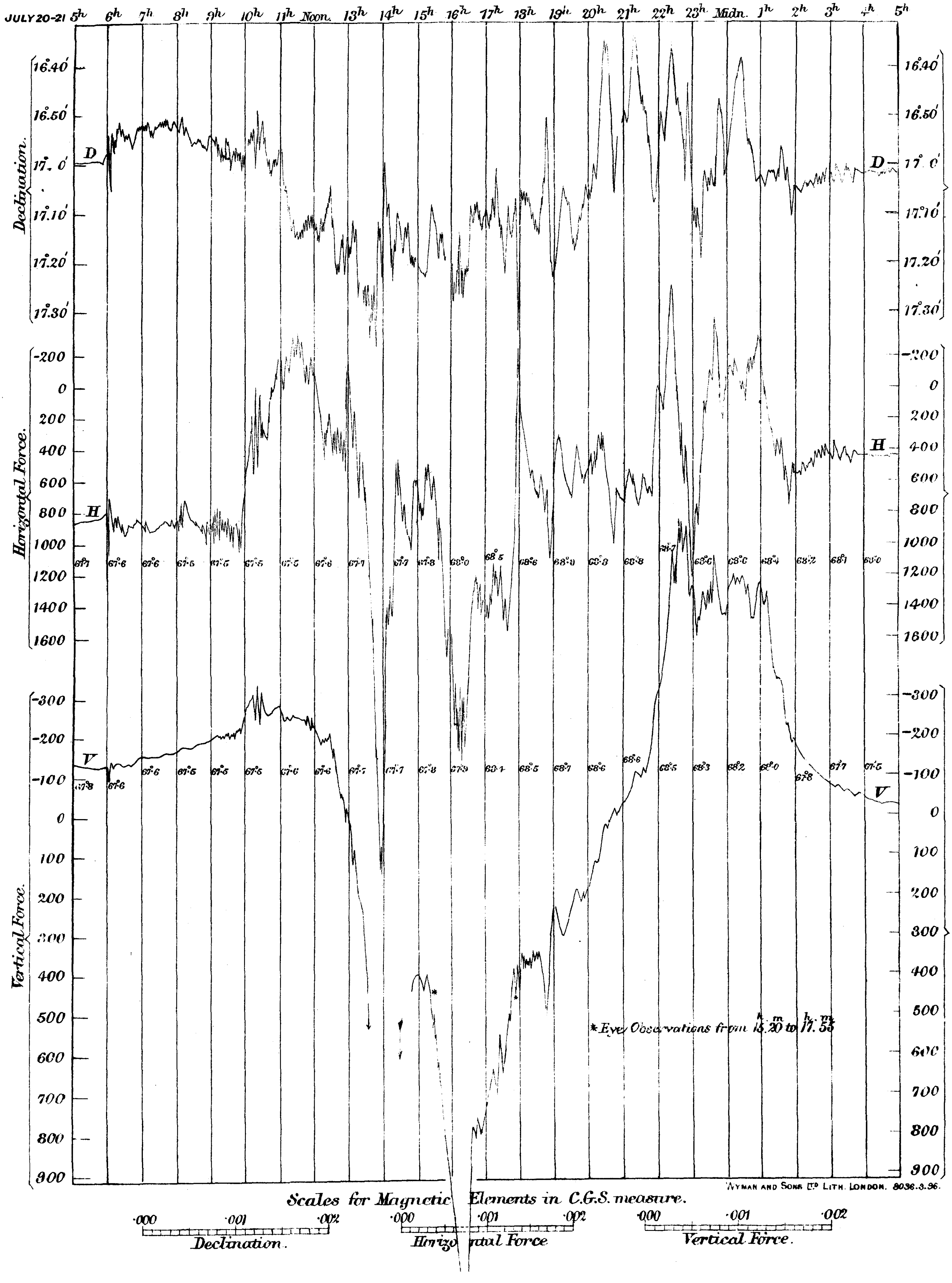
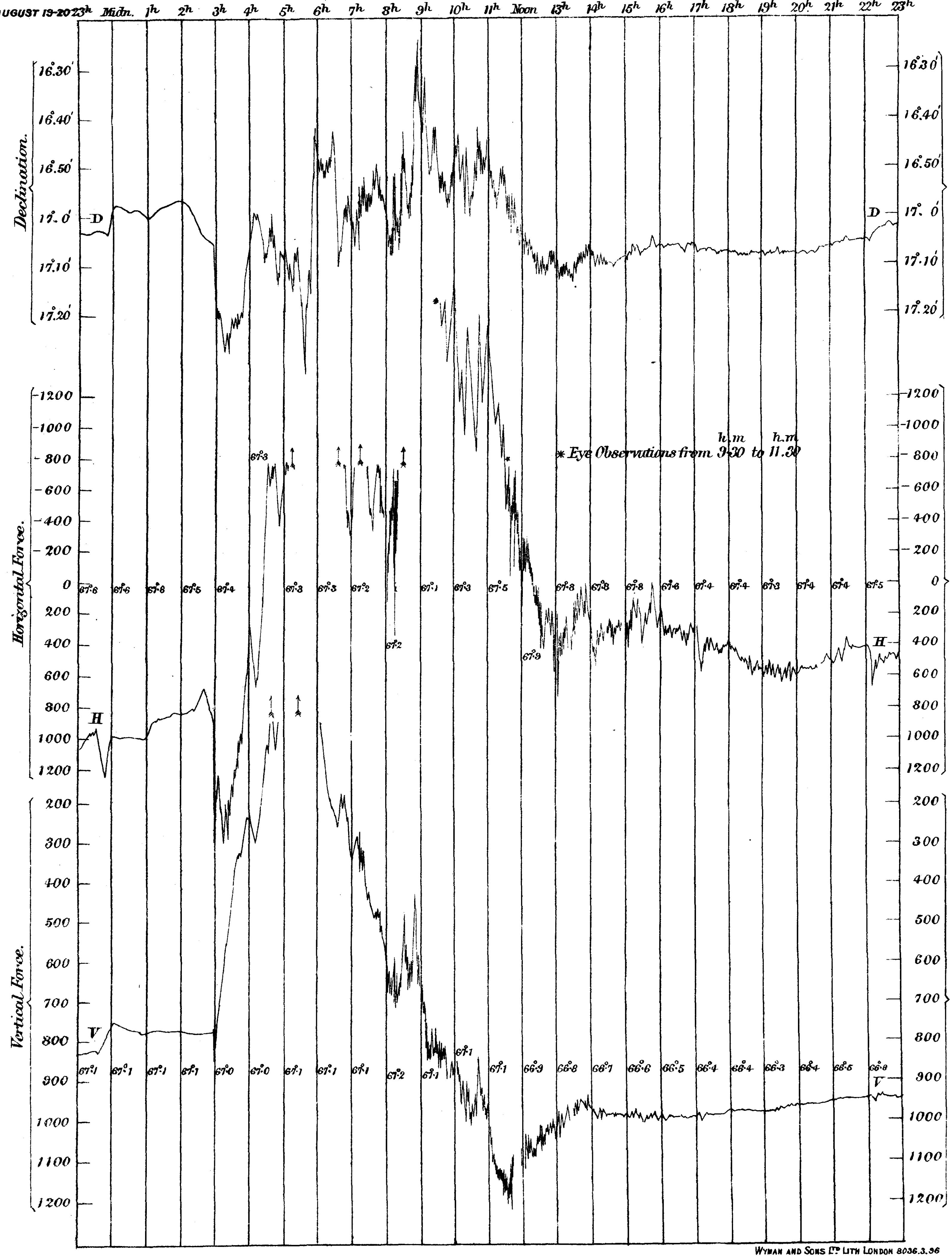


Plate X.

Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1894.



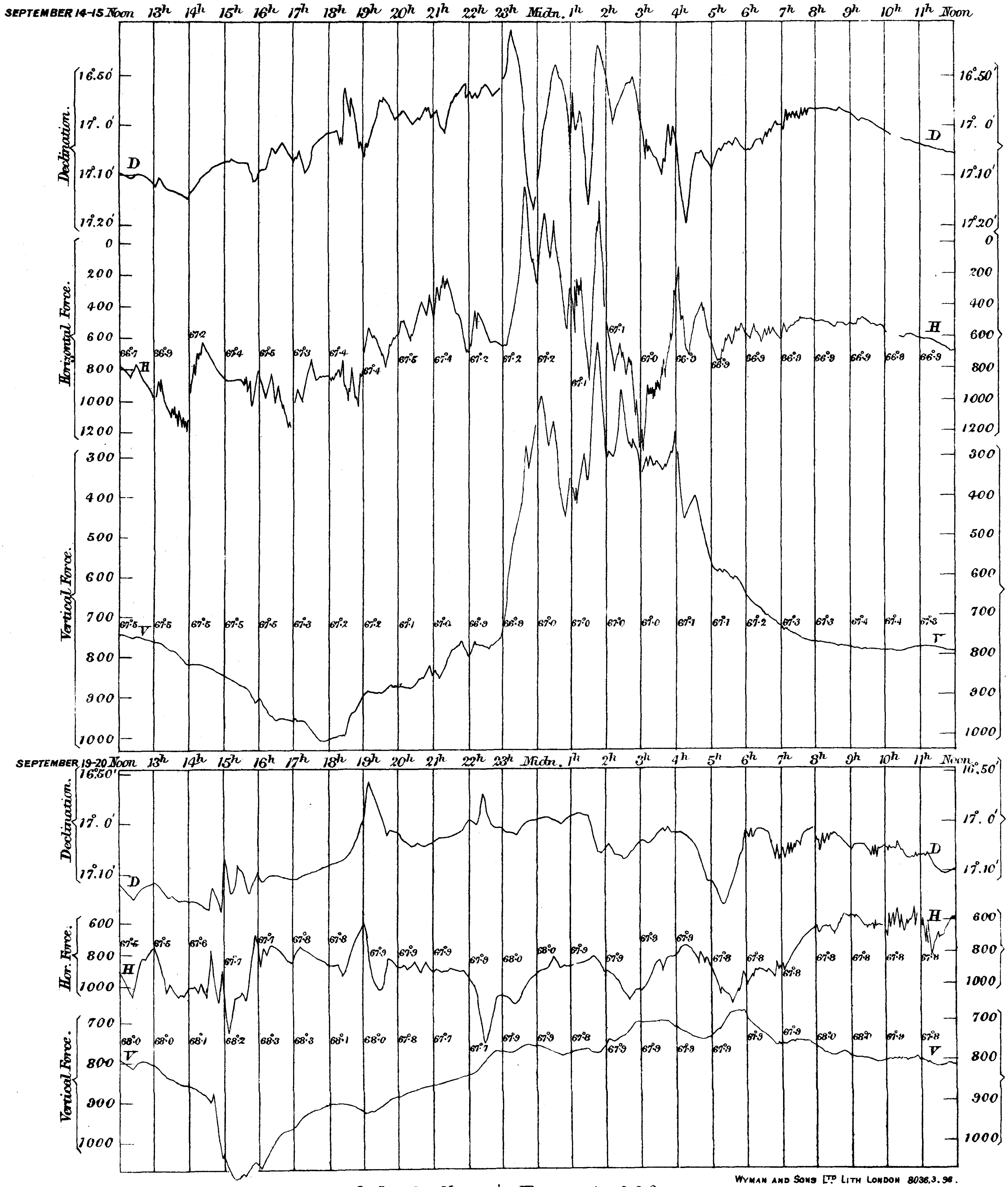
Scales for Magnetic Elements in C.G.S. measure.

·000 ·001 ·002 Declination.

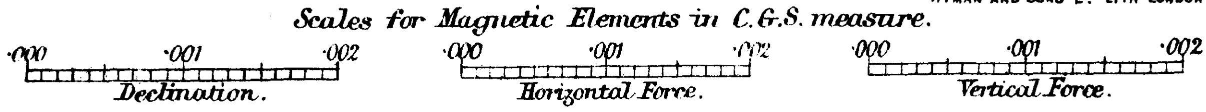
·000 ·001 ·002 Horizontal Force.

·000 ·001 ·002 Vertical Force.

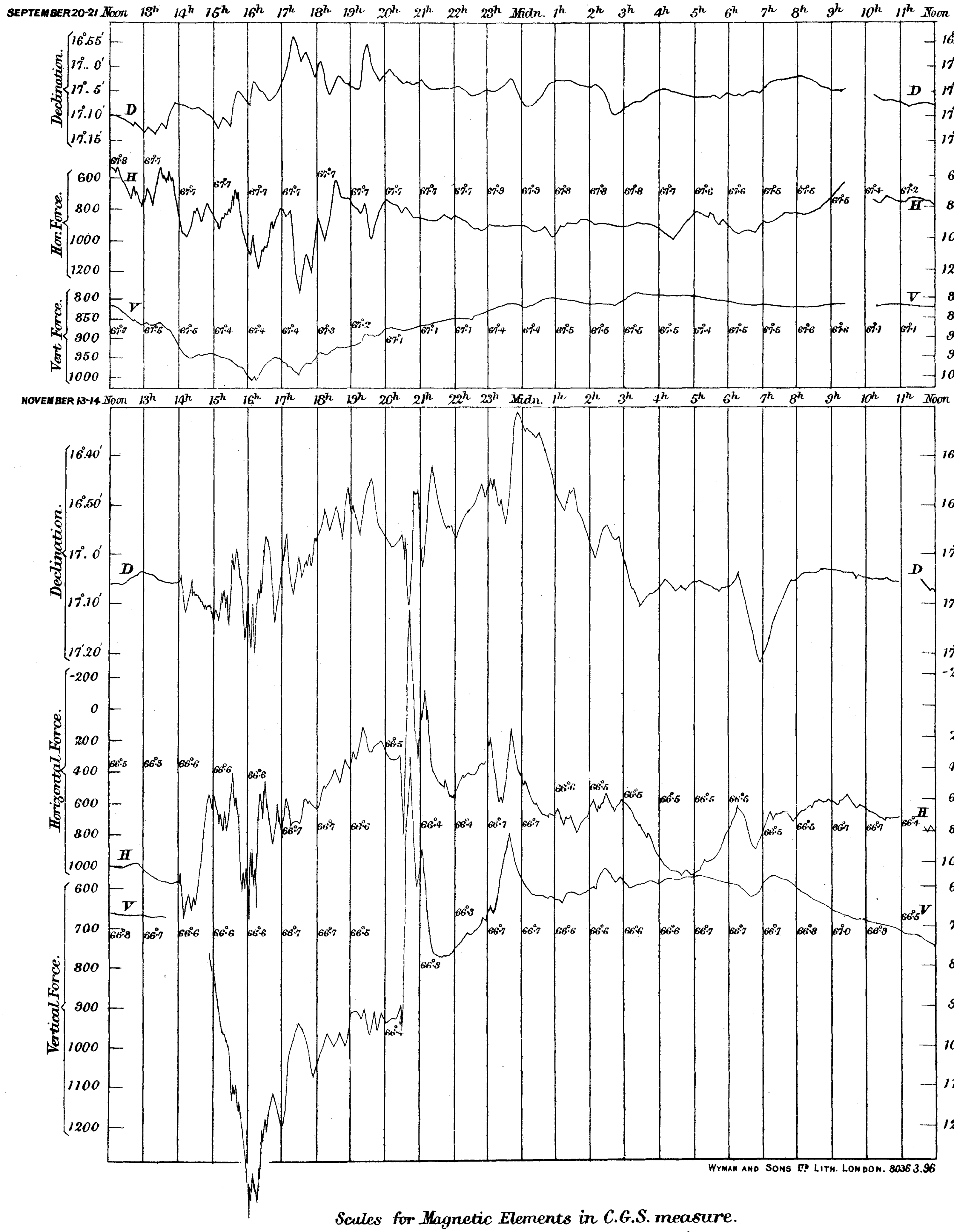
Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1894.



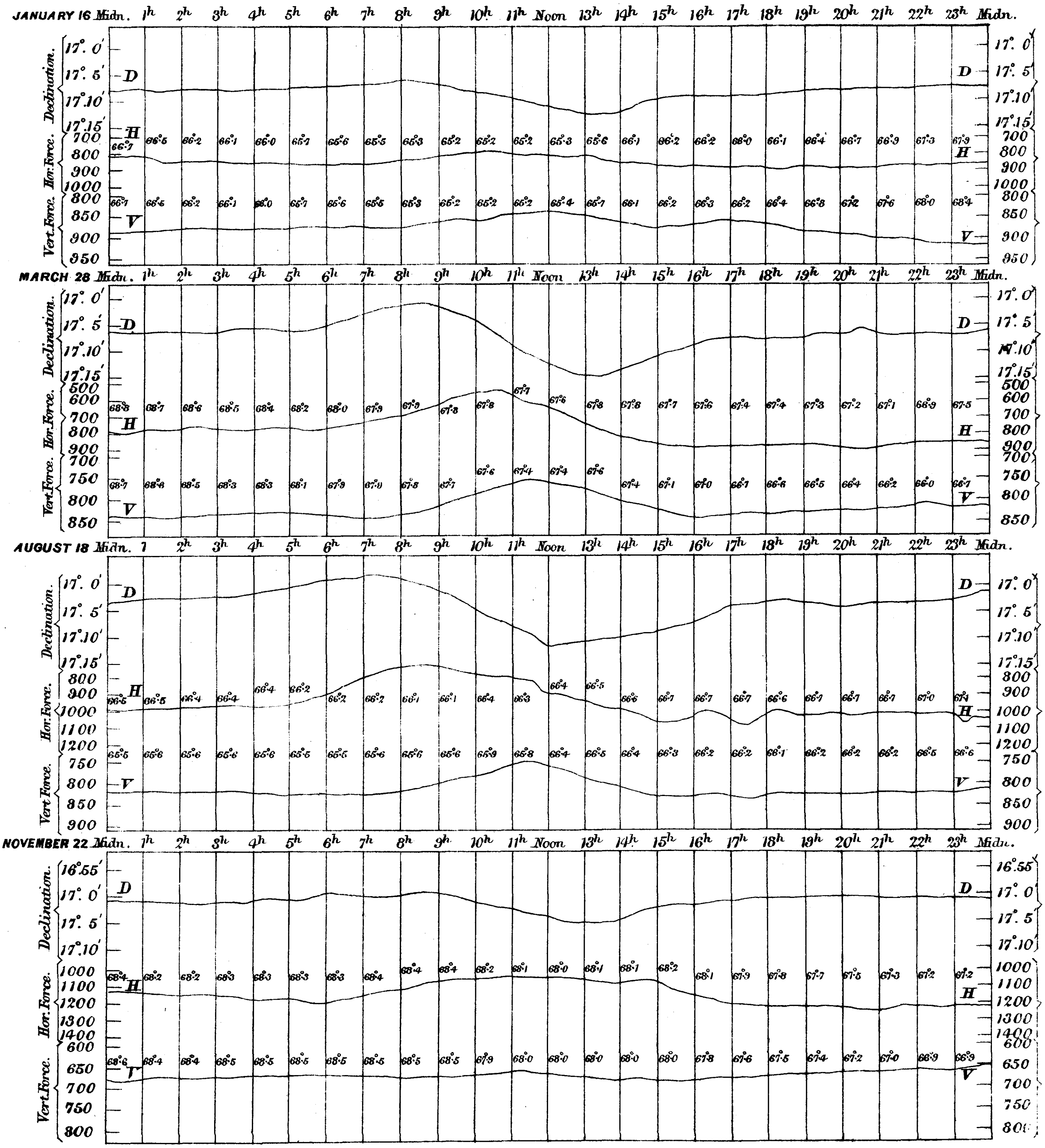
Scales for Magnetic Elements in C.G.S. measure.



Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1894.

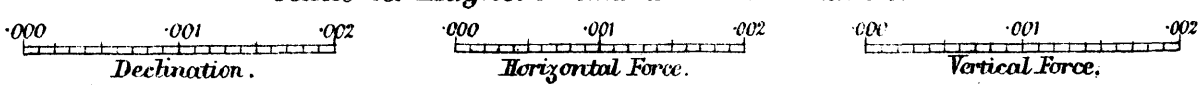


Types of Magnetic Diurnal Variations at four seasons of the year, recorded at the Royal Observatory, Greenwich, 1894.



WYMAN AND SONS LTD LITH LONDON 8036.3.96

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



ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

METEOROLOGICAL OBSERVATIONS.

1894.

MONTH and DAY, 1894.	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.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Jan. 1	...	30·118	37·7	31·8	5·9	35·0	− 3·5	34·2	32·9	2·1	4·6	0·0	92	43·0	25·8	0·009	1·2	vP, vN : sP : sP
2	...	30·087	36·9	26·2	10·7	32·2	− 6·3	31·1	28·7	3·5	11·3	2·0	86	52·0	24·2	0·041	3·8	sP : vP, sN
3	...	30·322	29·3	25·5	3·8	27·5	−11·0	25·4	16·4	11·1	13·9	1·8	62	44·9	23·0	0·044	1·5	mP, sN : sP, sN
4	...	30·027	27·3	15·0	12·3	22·9	−15·5	21·5	13·1	9·8	16·7	3·3	64	41·5	15·0	0·249	4·5	vvN : wN
5	Apogee : Greatest Dec. S.	29·628	19·0	12·8	6·2	15·4	−22·9	14·6	8·4	7·0	11·2	3·5	74	59·0	12·8	0·082	0·0	wP : ...
6	...	29·484	27·9	18·1	9·8	24·0	−14·2	23·7	21·9	2·1	8·6	0·0	91	34·9	16·8	0·140	0·0	...
7	New	29·735	24·5	18·1	6·4	21·3	−16·8	21·2	20·6	0·7	2·5	0·0	98	34·1	18·1	0·000	0·0	...
8	...	29·838	35·7	19·0	16·7	28·3	− 9·7	27·8	25·9	2·4	4·9	0·0	90	42·4	18·5	0·000	1·5	... : wP
9	...	29·659	36·4	30·5	5·9	34·9	− 3·0	34·0	32·6	2·3	3·2	1·0	91	37·0	28·0	0·299	4·8	wP : wN : vP
10	...	29·701	47·5	30·1	17·4	41·1	+ 3·2	39·8	38·1	3·0	7·6	0·0	90	53·9	27·0	0·013	6·0	wP : wwP : wP
11	...	29·713	52·1	40·0	12·1	45·7	+ 7·8	43·3	40·6	5·1	7·8	1·6	83	66·3	34·8	0·000	4·2	wP : wP : vP
12	...	29·823	51·1	41·7	9·4	46·2	+ 8·3	44·5	42·6	3·6	7·5	1·1	88	72·2	34·8	0·108	3·0	wP, wN : mP
13	In Equator	29·840	48·7	39·2	9·5	44·1	+ 6·1	42·6	40·8	3·3	6·8	1·3	88	57·1	34·0	0·006	4·5	wP
14	...	29·642	44·0	40·2	3·8	42·5	+ 4·3	42·1	41·6	0·9	2·4	0·0	97	44·6	34·0	0·408	0·0	wP : vN, wP : wP
15	First Quarter	29·818	46·3	37·8	8·5	43·7	+ 5·4	42·6	41·3	2·4	5·8	0·4	91	59·0	35·0	0·253	0·0	vN, wP : mP : wP, wN
16	...	29·697	50·0	43·2	6·8	47·5	+ 9·0	46·1	44·6	2·9	6·2	0·9	90	64·8	39·8	0·000	1·7	wP : mP : wP
17	...	29·448	51·0	43·3	7·7	48·4	+ 9·9	47·2	45·9	2·5	4·9	1·0	92	56·7	40·2	0·105	5·3	wwP : vP, vN
18	...	29·386	48·1	41·4	6·7	45·5	+ 7·0	43·5	41·2	4·3	7·0	1·7	85	62·3	36·5	0·003	0·0	wP : mP
19	Greatest Declination N.	29·701	49·6	37·0	12·6	44·0	+ 5·5	42·6	40·9	3·1	6·7	0·2	89	74·6	32·0	0·008	1·7	wP : mP : wP
20	Perigee	29·429	50·8	42·0	8·8	46·9	+ 8·5	44·3	41·4	5·5	9·8	1·7	82	70·0	39·0	0·085	5·7	wwN, wP : vN, sP
21	Full	29·715	48·1	39·2	8·9	44·8	+ 6·5	42·6	40·0	4·8	7·6	2·0	84	56·1	38·9	0·000	2·7	sP : mP
22	...	29·409	46·2	37·4	8·8	43·7	+ 5·4	42·4	40·8	2·9	5·5	1·1	90	50·3	36·0	0·405	6·8	wP : vvN, sP
23	...	29·652	38·7	29·7	9·0	35·8	− 2·6	33·2	29·3	6·5	12·4	1·4	76	60·1	23·0	0·000	0·0	sP
24	...	29·959	44·3	25·3	19·0	34·8	− 3·7	32·7	29·3	5·5	11·2	3·3	80	58·3	20·4	0·000	3·0	sP : sP : mP
25	In Equator	29·649	48·2	44·3	3·9	45·8	+ 7·0	45·1	44·3	1·5	3·0	0·4	95	54·7	40·0	0·088	3·3	wP
26	...	29·539	45·1	36·4	8·7	40·7	+ 1·7	37·9	34·3	6·4	11·8	1·8	78	68·8	32·1	0·137	4·3	vN, wP : sP
27	...	29·566	52·2	44·0	8·2	48·1	+ 8·8	45·6	42·9	5·2	9·8	3·1	83	79·0	40·0	0·081	10·7	wP, vN
28	Last Quarter	29·517	46·0	34·5	11·5	39·6	+ 0·1	36·6	32·7	6·9	11·6	4·5	77	81·6	29·8	0·003	0·8	mP : sP, sN
29	...	29·817	43·8	35·0	8·8	39·0	− 0·7	36·4	33·0	6·0	10·8	2·3	80	66·8	29·8	0·000	1·5	mP
30	...	29·546	48·0	39·5	8·5	43·7	+ 3·9	41·1	38·1	5·6	11·3	1·7	80	85·0	35·4	0·180	5·0	vN, wP : mP : sP
31	...	29·223	45·2	33·4	11·8	39·9	+ 0·1	38·8	37·4	2·5	6·0	0·7	91	45·7	29·9	0·346	1·5	wP, vN : sP
Means	...	29·700	42·6	33·3	9·3	38·5	0·0	36·9	34·2	4·2	8·1	1·4	85·1	57·3	29·8	Sum 3·093	2·9	...
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·700, being 0in·078 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 52°·2 on January 27 ; the lowest in the month was 12°·8 on January 5 ; and the range was 39°·4.
The mean of all the highest daily readings in the month was 42°·6, being 0°·5 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 33°·3, being 0°·3 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 9°·3, being 0°·2 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 38°·5, being *the same as* the average for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	0·0	7·9	WSW : N : NNW	NNW	2·5	0·0	0·28	263	10, f : 10, slt.-r : 10	9, slt.-r, sl : 7, li.-cl
2	0·5	7·9	NNW : NNE	NE	5·8	0·0	0·81	435	10 : 10, sn : v, li.-cl	10, sn : v, sn
3	0·0	7·9	NE : ENE	NE	4·7	0·0	0·98	511	10, sn : 10, oc.-sn	10, oc.-sn : 10, oc.-sn
4	0·7	7·9	ENE	ENE : E	14·0	0·0	2·06	632	10, sn : 10, sn, w : 5, li.-cl, w	10, w : 10, sn, w
5	2·2	7·9	ESE	ESE : SE	0·9	0·0	0·01	185	10, sn : 10, sn : 3, th.-cl	10 : v, sn : v, li.-cl
6	0·0	8·0	E : NE	NE : Calm : SW	0·7	0·0	0·02	120	10 : 10, sn : 10, sn	10 : 10, slt.-f : 10, f
7	0·0	8·0	SE : E : Calm	E : Calm	0·0	0·0	0·00	47	10, tk.-f : 10, f	10, f : 10, f
8	0·0	8·0	Calm : ENE : ESE	ESE : SE	1·3	0·0	0·05	171	10, f, ho.-fr : 10, f : 9, th.-cl	10 : v : 10
9	0·0	8·1	SE	SE	0·4	0·0	0·01	187	10 : 10 : 10, r	10, c.-r : 3, li.-cl : 0, fr
10	0·0	8·1	S : SSW	S : SSE	4·3	0·0	0·45	382	v, fr : 10, shs.-r : 10, fq.-th.-r	10 : v : 0
11	1·5	8·1	S	S : SE	4·0	0·0	0·37	348	p.-cl : 10 : 10, sc.oc.-slt.-r	4, cu, li.-cl : 0 : 10
12	3·9	8·2	S : SSW : SW	SSW : S	2·0	0·0	0·07	322	v, hy.-sh : 5, li.-cl : 1, li.-cl	0 : 0
13	1·6	8·2	SE	SSE	3·3	0·0	0·06	277	0 : 7, th.-cl, sh.-r	v : v, li.-cl
14	0·0	8·2	SE : E	S : SW	0·0	0·0	0·00	128	p.-cl : 10, hy.-r : 10, c.-r	10, oc.-slt.-r : 10, oc.-slt.-r
15	2·4	8·3	WSW : SW	S : SSW	8·4	0·0	0·45	350	10, r : v, li.-cl : 1, th.-cl	3, th.-cl : 10, r, w
16	0·8	8·3	SW	SW : SSW	2·6	0·0	0·30	363	10, slt.-r : 4, ci.-cu, li.-cl	8, cu.-s, li.-cl : 10 : 10
17	0·0	8·3	SSW	SW	12·0	0·0	0·82	482	10, m.-r : 10, th.-r	10, fq.-r, sqs : v, li.-cl, li.-sc, lu.-ha
18	0·4	8·4	SW : WSW	W : WSW	2·6	0·0	0·25	376	v : 10	7, cu, li.-cl : v, li.-cl
19	2·7	8·4	SW	SW : SSW	13·1	0·0	0·67	430	0, d : 5, li.-cl	v, cu.-s, sc : 10, oc.-slt.-r : 10, r, w
20	2·9	8·5	SSW : SW	SW : WSW	9·3	0·0	1·50	602	10, r, w : 10, w : v	v, li.-cl, slt.-r : v, li.-cl : v
21	0·0	8·5	WSW : SW	SSW	3·8	0·0	0·62	461	v : 10	10 : 10
22	0·0	8·6	SSW	SSW : NW : SW	4·3	0·0	0·34	366	10 : 10, oc.-r	10, r : 10
23	3·6	8·6	SW : NNW	NW : NNW	2·0	0·0	0·05	237	10 : 0, ho.-fr	0 : v : 0, h, ho.-fr
24	1·9	8·7	NW : SW	SSW	4·2	0·0	0·50	365	0, ho.-fr : 0	8, th.-cl : 10, oc.-m.-r
25	0·0	8·7	SSW	SSW	4·8	0·0	0·69	479	10 : 10, oc.-shs : 10, oc.-m.-r	10, fq.-m.-r : 10, oc.-m.-r
26	3·5	8·8	SW : NW : WNW	W : SW	6·4	0·0	0·67	492	10, shs.-r : 10 : 3, li.-cl	2, li.-cl : v, th.-cl
27	1·0	8·8	SW	SW	23·0	0·2	2·99	866	10, w, slt.-r : 10, oc.-slt.-r, w	10, sc, oc.-slt.-r, st.-w : 10, r, w
28	4·2	8·9	WSW	WSW	13·8	0·0	1·33	583	v : 1, li.-cl, w	v, hl, w : 0 : 10, th.-cl
29	2·7	8·9	W : WSW	SW : SSW	15·4	0·0	0·47	400	p.-cl : 4, li.-cl	3, cu, li.-cl : 4, li.-cl : 10
30	5·1	9·0	SSW : SW	SW : SSW	11·4	0·0	1·25	571	10, w, r : 0 : 1, li.-cl	2, ci.-cu, li.-cl : 0 : 0, w
31	0·0	9·0	SSW : N	NW : SW : E	7·1	0·0	0·30	257	10, w, fq.-r : 10, shs.-r : 10, r, gt.-glm	10, oc.-slt.-r : v : 10, oc.-slt.-r, sl
Means	1·3	8·4	...	...	...	...	0·59	377		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 36°·9, being 0°·3 *lower* than
The mean *Temperature of the Dew Point* for the month was 34°·2, being 1°·2 *lower* than
The mean *Degree of Humidity* for the month was 85·1, being 3·7 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·197, being 0in·010 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·3, being 0gr·1 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 553 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 6·9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·161. The maximum daily amount of *Sunshine* was 5·1 hours on January 30.

The highest reading of the *Solar Radiation Thermometer* was 85°·0 on January 30; and the lowest reading of the *Terrestrial Radiation Thermometer* was 12°·8 on January 5.

The mean daily distribution of *Ozone* for the 12 hours ending 9h. was 2·3; 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. 3, E. 6, S. 13, and W. 8. One day was calm.

The *Greatest Pressure of the Wind* in the month was 23·0 lbs. on the square foot on January 27. The mean daily *Horizontal Movement of the Air* for the month was 377 miles; the greatest daily value was 866 miles on January 27; and the least daily value was 47 miles on January 7.

Rain fell on 21 days in the month, amounting to 3in·093, as measured by gauge No. 6 partly sunk below the ground; being 1in·104 *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1894.	Phases of the Moon.	BAROMETER.	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.		Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
			Of the Air.					Of Evaporation.	Of the Dew Point.					Of Radiation.				
		Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean.	Greatest.	Least.		Highest in Sun's Rays.	Lowest on the Grass.			
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Feb. 1	Apogee	29·640	49·0	32·2	16·8	38·7	− 1·0	37·2	35·2	3·5	8·3	1·3	88	77·3	28·1	0·067	3·0	mP : mP : mN, vP
2	Greatest Declination S.	29·836	52·0	47·8	4·2	49·8	+10·1	48·0	46·1	3·7	6·5	2·1	87	58·0	44·1	0·000	3·0	wP : mP
3	...	29·959	51·5	38·4	13·1	47·5	+ 7·8	44·5	41·2	6·3	13·1	1·5	79	84·0	33·5	0·095	0·0	wP, vN : mP
4	...	30·259	49·9	35·7	14·2	42·9	+ 3·1	41·5	39·8	3·1	5·8	0·7	89	77·0	30·8	0·000	0·0	mP : sP
5	New	30·225	48·4	39·2	9·2	45·5	+ 5·7	44·8	44·0	1·5	3·6	0·4	95	55·0	37·0	0·254	4·7	wP : vP : vN
6	...	30·028	51·0	38·8	12·2	46·1	+ 6·4	45·0	43·8	2·3	4·5	0·2	92	57·0	35·0	0·000	7·0	wP : mP : wP
7	...	29·763	55·1	49·9	5·2	52·4	+13·0	50·0	47·6	4·8	7·7	1·2	84	69·8	45·9	0·010	6·0	wP
8	...	30·014	51·7	40·4	11·3	46·9	+ 7·8	43·2	39·0	7·9	12·3	1·4	75	77·2	34·8	0·000	2·8	wP : mP : sP
9	In Equator	29·784	53·0	38·1	14·9	45·3	+ 6·6	43·1	40·6	4·7	7·9	1·1	84	73·1	33·9	0·010	2·5	mP : wP : sP
10	...	29·582	50·1	40·8	9·3	45·1	+ 6·7	42·0	38·4	6·7	9·6	4·2	77	75·0	37·0	0·000	3·0	mP
11	...	29·339	54·3	45·7	8·6	50·1	+11·8	46·9	43·5	6·6	11·3	3·6	79	71·7	42·8	0·062	0·0	wwP : mP : vP, vN
12	...	29·361	49·0	36·8	12·2	42·7	+ 4·2	38·4	33·2	9·5	14·5	3·7	70	88·4	32·6	0·063	2·0	vP, vN : mP : sP, sN
13	First Quarter	29·799	44·9	33·3	11·6	38·3	− 0·5	35·5	31·7	6·6	11·6	3·4	77	73·0	28·0	0·000	0·0	mP : vP
14	...	29·993	38·0	30·3	7·7	34·9	− 4·3	33·9	32·3	2·6	4·8	0·9	90	49·8	26·0	0·000	0·5	sP : vP : vP, wN
15	...	29·976	47·0	35·1	11·9	40·6	+ 1·0	39·9	39·0	1·6	3·4	0·2	94	54·7	33·0	0·070	5·5	vP, vN : mP
16	Greatest Declination N.	29·910	48·5	39·6	8·9	42·9	+ 3·1	40·8	38·3	4·6	8·3	2·0	83	64·9	36·7	0·000	2·0	wP : mP : sP
17	Perigee	29·947	39·8	36·2	3·6	38·2	− 1·6	37·5	36·5	1·7	3·2	0·5	94	46·0	35·9	0·414	2·2	mP, vN : ssN
18	...	30·175	38·3	27·9	10·4	33·9	− 5·8	31·4	26·9	7·0	11·1	2·2	75	85·3	25·0	0·000	7·2	mP
19	...	30·350	37·1	25·3	11·8	31·0	− 8·6	29·4	25·1	5·9	11·0	0·0	77	85·0	22·3	0·000	1·5	mP : sP
20	Full	30·270	39·0	24·4	14·6	31·5	− 8·0	30·0	26·4	5·1	8·8	0·9	81	81·0	18·5	0·000	0·0	sP
21	...	30·149	38·8	24·7	14·1	31·4	− 8·1	30·2	27·2	4·2	8·3	0·0	83	76·8	20·2	0·000	0·0	vP
22	In Equator	30·109	40·6	25·3	15·3	32·8	− 6·8	31·6	29·2	3·6	8·0	0·0	86	81·3	20·9	0·000	0·7	sP
23	...	29·792	44·0	28·5	15·5	37·4	− 2·4	35·2	32·2	5·2	9·3	2·9	82	73·6	24·5	0·056	2·3	mP : vP : mP, vN
24	...	29·534	49·1	35·0	14·1	42·4	+ 2·5	39·5	36·0	6·4	14·3	0·7	79	89·9	29·8	0·150	0·7	vN, vP : vP
25	...	29·586	51·8	33·8	18·0	43·5	+ 3·5	42·1	40·4	3·1	4·8	1·9	89	56·0	29·7	0·119	4·5	mP : sN, mP
26	...	29·575	52·3	47·5	4·8	51·0	+10·9	48·8	46·5	4·5	7·0	1·4	85	57·8	43·9	0·002	7·2	wP : wP : mP
27	Last Quarter	29·735	55·9	38·2	17·7	48·7	+ 8·6	45·2	41·4	7·3	17·9	2·6	76	98·7	33·0	0·002	4·5	wP : mP : sP
28	...	29·805	45·3	36·6	8·7	39·5	− 0·7	37·8	35·6	3·9	9·1	0·7	86	68·1	32·0	0·216	1·5	vP : vN, vP : sP
Means	...	29·875	47·3	35·9	11·4	41·8	+ 2·3	39·8	37·0	4·8	8·8	1·5	83·4	71·6	32·0	Sum 1·590	2·6	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·875, being 0in·076 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 55°·9 on February 27; the lowest in the month was 24°·4 on February 20; and the range was 31°·5.
The mean of all the highest daily readings in the month was 47°·3, being 2°·0 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 35°·9, being 1°·6 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 11°·4, being 0°·4 *greater* than the average for the 50 years, 1841–1890.
The mean for the month was 41°·8, being 2°·3 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	3·3	9·1	N : NW : SW	SW : WSW	8·0	0·0	0·47	404	v : 0, ho.-fr	10 : 10, fq.-r : 10
2	0·0	9·2	WSW : SW	SW	7·8	0·0	0·85	562	10 : 10, sc	10, sc, slt.-r : p.-cl, slt.-r
3	3·2	9·2	SW : WNW	WNW : WSW	6·3	0·0	0·72	497	10, shs.-r : 10, shs.-r	3, cu.-s : 0, h, slt.-m
4	3·9	9·3	WSW	SW	2·5	0·0	0·11	346	0 : 0 : 1, li.-cl	3, li.-cl : 10 : v
5	0·0	9·3	WSW : NE	ENE	2·2	0·0	0·05	200	10 : 10, m.-r, f, glm	10, m.-r : 10
6	0·0	9·4	SSE : SW	SSW : SW	14·0	0·0	1·18	532	10 : 10, sh.-r : 10	10 : 10, st.-w
7	0·2	9·4	SW	SW	20·0	0·0	2·90	905	10, st.-w : 10, st.-w	10, st.-w, sc : 10, th.-r, w
8	2·4	9·5	WSW : WNW	WSW : SW	7·0	0·0	0·52	493	v : 3, li.-cl : 0,h,so.-ha	2, li.-cl : 0 : 0
9	0·1	9·6	SSW	SW : WSW	13·5	0·0	0·95	569	2, li.-cl : 2, li.-cl : v, w	10, slt.-r : v, th.-cl : 0
10	0·3	9·6	SW : WSW	WSW : SW	13·0	0·0	1·60	689	0 ; p.-cl : 10, w	, li-cl, oc.-slt.-r : v, li.-cl : v
11	0·0	9·7	SW : WSW	SW	35·0	0·4	3·85	942	10, st.-w : 10, st.-w	10, oc.-slt.-r, st.-w : 10, sc : r, hy.-sqs
12	5·8	9·8	WSW	WSW	19·0	0·1	2·84	840	10, shs.-r, st.-w : 2, cu, ci.-cu, st.-w	2, cu, li.-cl : v, sq : 1, li.-cl
13	2·3	9·8	WSW : W : NW	NW : SW	2·6	0·0	0·26	328	0 : 0, ho.-fr : 2, li.-cl	4, li.-cl : v, li.-cl
14	0·0	9·9	SW : NNW	Calm : SSE	0·1	0·0	0·00	155	v ; 4, li.-cl, ho.-fr : 6, th.-cl, slt.-f	4, li.-cl, s't.-f : p.-cl, slt.-f : 10, th.-r
15	0·0	9·9	SE	S : SSE	0·0	0·0	0·00	125	10, slt.-r : 10, m.-r	10, oc.-slt.-r : 9, th.-cl, lu.-ha
16	0·0	10·0	SSE : SSW	SSW : ESE	0·1	0·0	0·00	171	10 : 10	10, th.-cl : 10, th.-cl
17	0·0	10·1	E : ESE	ESE : E	2·6	0·0	0·13	259	10 : 10, shs.-r : 10, r	10, c.-r : 10, r
18	6·7	10·1	ENE	ENE : ESE	5·0	0·0	0·53	418	10 : v, li.-cl	v, li.-cl : v, li.-cl : 0
19	8·4	10·2	E : ESE	ENE	1·5	0·0	0·07	243	0, ho.-fr : 0, ho.-fr	0 : 0
20	7·1	10·3	E : NE	ENE	1·8	0·0	0·05	200	0, ho.-fr : 0, m, ho.-fr	2, li.-cl : 0, ho.-fr
21	5·8	10·3	NNE : NE	NE	0·0	0·0	0·00	133	0, ho.-fr : 0, ho.-fr, slt.-f : v, li.-cl	2, th.-cl : 0, slt.-h : 10, slt.-f
22	4·2	10·4	NNE : NE	ENE	0·1	0·0	0·00	116	v, ho.-fr : 10 : 6, li.-cl, h	v, li.-cl : 10
23	2·0	10·5	SW	SSW : S	5·4	0·0	0·37	364	10 : 0, ho.-fr : 2, li.-cl	8, cu.-s, li.-cl : 10, r
24	3·8	10·5	SSW : WSW	WNW : WSW	5·4	0·0	0·45	415	10, r : 10 : 7, cu.-s, li.-cl	v, slt.-r : 0
25	0·0	10·6	SW : SSW	SW	11·0	0·0	1·20	538	10 : 10, sc	10, r : 9, th.-cl : 10
26	0·0	10·7	WSW : SW	SW	13·7	0·0	1·28	599	10, w : 10, oc.-slt.-r	10, oc.-slt.-r, sc : 10
27	2·9	10·7	SW	WSW	6·7	0·0	1·10	570	10, w : 10, slt.-r	3, cu, li.-cl : 0
28	0·4	10·8	S : SE : NW	WSW : SW	2·8	0·0	0·08	255	10 : 10, r, glm	10 : 0, a
Means	2·2	9·9	...	...	...	...	0·77	424		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 39°·8, being 2°·0 *higher* than
The mean *Temperature of the Dew Point* for the month was 37°·0, being 1°·4 *higher* than
The mean *Degree of Humidity* for the month was 83·4, being 2·6 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·220, being 0in·012 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·6, being 0gr·2 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 552 grains, being 1 grain *less* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·226. The maximum daily amount of *Sunshine* was 8·4 hours on February 19.

The highest reading of the *Solar Radiation Thermometer* was 98°·7 on February 27; and the lowest reading of the *Terrestrial Radiation Thermometer* was 18°·5 on February 20.

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

The *Proportions of Wind* referred to the cardinal points were N. 2, E. 5, S. 9, and W. 12.

The *Greatest Pressure of the Wind* in the month was 35·0 lbs. on the square foot on February 11. The mean daily *Horizontal Movement of the Air* for the month was 424 miles; the greatest daily value was 942 miles on February 11; and the least daily value was 116 miles on February 22.

Rain fell on 13 days in the month, amounting to 1in·590, as measured by gauge No. 6 partly sunk below the ground; being 0in·106 *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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.		
Mar. 1	Greatest Dec. S. Apogee	29·754	49·4	37·3	12·1	44·6	+ 4·4	42·5	40·0	4·6	8·2	1·3	84	75·1	33·0	0·113	9·8	wP : wP, wN
2	...	29·893	52·9	36·5	16·4	43·9	+ 3·5	40·4	36·3	7·6	14·6	3·7	74	100·0	30·0	0·000	3·8	mP : mP : sP
3	...	30·008	52·0	31·5	20·5	40·9	+ 0·4	38·1	34·6	6·3	14·5	1·3	79	95·0	26·2	0·000	0·0	sP : mP
4	...	29·899	52·0	36·0	16·0	43·1	+ 2·4	39·9	36·1	7·0	12·0	1·0	77	102·0	31·2	0·000	1·7	mP : sP
5	...	30·051	51·0	30·4	20·6	41·2	+ 0·3	38·1	34·2	7·0	13·4	2·7	77	96·0	24·9	0·010	6·0	sP : vP, wN
6	...	29·503	52·8	41·3	11·5	46·4	+ 5·3	42·8	38·7	7·7	14·7	1·7	75	90·9	35·5	0·054	2·3	vP, wN : vP, sN
7	New	29·663	50·3	35·3	15·0	42·6	+ 1·6	39·8	36·4	6·2	11·7	1·8	79	93·2	30·0	0·014	3·2	sP : sP : mP, vN
8	In Equator	29·483	49·3	39·4	9·9	45·5	+ 4·6	44·2	42·7	2·8	5·5	1·3	90	62·1	33·9	0·096	4·8	mP : vP, vN
9	...	29·458	51·5	37·8	13·7	45·6	+ 4·8	44·0	42·1	3·5	5·9	1·6	88	70·3	34·0	0·015	7·0	mP : wP, wN : wP, sN
10	...	29·506	55·3	43·2	12·1	48·5	+ 7·8	45·3	41·8	6·7	14·1	2·5	78	91·3	38·8	0·005	10·0	wP : vP, sN
11	...	29·418	56·5	39·5	17·0	48·1	+ 7·5	44·0	39·5	8·6	17·6	3·4	72	99·1	36·0	0·018	0·0	wP : mP
12	...	29·457	52·1	39·2	12·9	44·7	+ 4·0	41·6	38·0	6·7	12·9	1·5	77	99·2	35·0	0·106	0·0	mP : vP, vN
13	...	29·094	50·2	39·2	11·0	44·8	+ 3·9	42·0	38·7	6·1	13·2	1·9	79	99·2	34·5	0·143	0·7	vP, vN
14	First Quarter	29·317	51·3	35·2	16·1	42·0	+ 0·8	39·1	35·5	6·5	14·7	1·8	79	98·0	31·7	0·033	2·3	mP : vP, vN
15	Greatest Declination N.	29·290	48·4	37·5	10·9	42·3	+ 0·9	40·3	37·9	4·4	10·0	0·9	85	84·4	30·4	0·108	0·0	vP, vN : vP, wN
16	...	29·697	51·0	30·6	20·4	39·6	— 1·9	37·1	33·9	5·7	14·6	1·0	80	94·5	25·9	0·004	0·0	sP : sP : sN, vP
17	Perigee	30·028	49·3	30·2	19·1	38·7	— 2·9	36·5	33·5	5·2	11·5	0·0	83	105·2	24·8	0·000	1·2	sP : vP
18	...	30·127	49·4	29·3	20·1	38·5	— 3·1	36·4	33·6	4·9	11·2	1·8	83	66·7	26·2	0·000	3·8	mP
19	...	30·132	52·9	30·2	22·7	41·9	+ 0·4	40·0	37·6	4·3	9·9	0·7	86	73·8	25·1	0·000	0·0	mP : vP : vP, wN
20	...	30·101	53·0	40·2	12·8	46·5	+ 5·1	45·1	43·6	2·9	5·2	0·7	90	86·0	32·3	0·000	1·7	mP
21	Full: In Equator	30·082	54·8	38·4	16·4	45·5	+ 4·1	43·0	40·2	5·3	12·8	0·5	82	113·0	31·9	0·000	5·3	mP
22	...	30·191	46·7	38·4	8·3	42·2	+ 0·7	40·8	39·1	3·1	6·6	0·5	89	60·7	35·0	0·000	0·0	mP
23	...	30·278	53·0	39·3	13·7	44·5	+ 2·7	42·5	40·1	4·4	9·9	0·5	85	107·0	35·0	0·000	1·2	wP : mP
24	...	30·171	57·0	34·7	22·3	44·7	+ 2·6	41·8	38·4	6·3	16·2	0·2	78	112·0	28·9	0·003	3·8	mP
25	...	29·974	57·4	36·9	20·5	46·1	+ 3·7	42·4	38·2	7·9	20·7	1·2	75	111·5	29·4	0·000	0·0	mP : sP
26	...	29·879	60·5	31·8	28·7	46·1	+ 3·2	42·1	37·5	8·6	20·9	0·2	73	117·7	25·1	0·002	3·0	mP : vP : sP
27	...	29·938	64·0	30·2	33·8	47·3	+ 4·0	42·6	37·4	9·9	21·2	0·7	69	115·9	23·7	0·000	0·0	sP : mP : sP
28	Greatest Declination S.	30·075	56·7	29·4	27·3	43·6	— 0·1	41·4	38·8	4·8	14·1	0·3	83	110·7	25·0	0·000	3·2	mP : vP : wP
29	Last Quarter: Apogee	30·038	58·0	36·8	21·2	45·9	+ 1·8	43·8	41·4	4·5	12·4	0·0	84	112·6	32·5	0·000	3·8	wwP : sP
30	...	29·721	65·0	32·9	32·1	49·5	+ 4·9	44·5	39·1	10·4	23·6	0·0	67	120·0	30·6	0·000	0·0	mP : vP : vP, vN
31	...	29·626	68·0	43·8	24·2	54·7	+ 9·7	48·2	41·9	12·8	22·0	6·4	62	118·8	36·8	0·000	0·0	vP, wN : mP : sP
Means	...	29·802	53·9	35·9	18·0	44·5	+ 2·8	41·6	38·3	6·2	13·4	1·4	79·4	96·2	30·8	Sum 0·724	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·802, being 0in·049 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 68°·0 on March 31; the lowest in the month was 29°·3 on March 18; and the range was 38°·7.
The mean of all the highest daily readings in the month was 53°·9, being 4°·2 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 35°·9, being 0°·9 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 18°·0, being 3°·3 *greater* than the average for the 50 years, 1841–1890.
The mean for the month was 44°·5, being 2°·8 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	0·0	10·8	SSW	SSW	9·0	0·0	1·44	604	v : p.-cl : 10, oc.-slt.-r, w	10, oc.-slt.-r, w : 10, r, w
2	7·4	10·9	SW : WSW	WSW	3·6	0·0	0·22	367	0 : 0 : 2, cu, li.-cl	3, cu, li.-cl : 2, li.-cl : 0
3	4·9	11·0	SW	SW : S	0·5	0·0	0·00	198	0, ho.-fr : 0, ho.-fr : 5, cu.-s, th.-cl	3, li.-cl : 3, li.-cl : 10
4	5·3	11·1	SW : WSW	WSW : NW	5·6	0·0	0·46	409	0 0 : 2, li.-cl	p.-cl : 0
5	3·8	11·1	NW : SW	SW	10·1	0·0	0·66	450	0, ho.-fr : 0, ho.-fr : 2, li.-cl	v, th.-cl : 10, slt.-r : 10, th.-r, w
6	1·8	11·2	SW : W	WNW	15·5	0·0	1·80	686	10, r, w : 10 : v, th.-cl, w	p.-cl : w, sq, r : v, th.-cl
7	1·0	11·2	NW : WSW	SW : SSW	3·7	0·0	0·18	320	v : th.-cl	7, th.-cl : 10, slt.-r : 10, oc.-slt.-r
8	0·0	11·3	SSW	SW	4·8	0·0	0·35	392	v, oc.-r : 10, fq.-r	10, c.-r : p.-cl : 0
9	0·0	11·4	SSW	SSW	7·4	0·0	0·76	510	0 : 10 : 10, oc.-slt.-r	10, oc.-slt.-r, sc : 10, oc.-slt.-r
10	2·5	11·4	SW	SW : SSW	4·5	0·0	0·50	469	v, sh.-r : v, slt.-r	v, cu, ci.-cu : p.-cl, slt.-r : v, li.-cl
11	2·3	11·5	SSW : SW	WSW : SW	15·0	0·0	2·04	721	v, st.-w : 10, oc.-r, w	p.-cl, w : 0 : 0
12	1·2	11·6	SW	SW : SSW	7·4	0·0	0·99	594	p.-cl : 0 : v, th.-cl, so.-ha	10, hy.-sh : 10, slt.-r, w
13	4·9	11·6	SSW : WSW	SW	15·0	0·0	1·92	659	10.fq.-r, st.-w : 10, oc.-r, w : v, shs.-r, w	v, sqs, hl, w : v : v
14	5·9	11·7	SW : WSW	SSW : SE	4·3	0·0	0·12	344	0, d : 0 : v, cu, li.-cl	v, cu.-s, th.-cl, sh.-r : 10, oc.-th.-r
15	0·6	11·8	ESE : NE : NNW	NNW	2·5	0·0	0·09	288	10, fq.-r : 10	v, li.-cl : p.-cl
16	5·0	11·8	WSW : WNW : NNW	NNW : ENE	1·8	0·0	0·00	170	0, ho.-fr : 0, m : 2, cu, li.-cl, h	p.-cl, slt.-r : 0, slt.-f
17	5·5	11·9	NNW : N	NNE : SW	0·0	0·0	0·00	130	0, ho.-fr, slt.-f : 0, f : 3, cu, li.-cl	3, cu, cu.-s : 0, h, f, fr
18	0·0	12·0	SW	S : E	0·0	0·0	0·00	136	0, ho.-fr : 0, ho.-fr : 10, th.-cl, f, glm	8, th.-cl, f : f, h : 0, m, lu.-ha
19	0·3	12·0	SW	NW : Calm	0·0	0·0	0·00	107	0, ho.-fr : 0, f : 3, th.-cl, h, glm	10, th.-cl, h : 10 f
20	0·4	12·1	N : NE	E : ENE	0·0	0·0	0·00	146	10 : 10, slt.-r	10 : p.-cl : v, lu.-co
21	8·2	12·2	NE : ENE	ENE : E	1·0	0·0	0·02	267	10 : 10 : v, li.-cl	1, li.-cl : 0 : p.-cl
22	0·0	12·2	NE : ENE	ENE	1·5	0·0	0·03	266	10 : 10, f : 10	10 : 10
23	5·7	12·3	ENE	ENE	1·3	0·0	0·01	271	10, slt.-f : p.-cl	3, li.-cl : 0
24	6·0	12·4	NE	ENE	2·6	0·0	0·05	271	0 : 10, f : 10	0 : 0
25	10·4	12·4	ENE	E : ENE	2·0	0·0	0·02	221	0, d : 0	0 : 0
26	9·2	12·5	ENE	E	0·2	0·0	0·00	171	0, ho.-fr : tk.-f : 0	0 : 0
27	9·5	12·6	ENE	ENE : E	0·0	0·0	0·00	130	0, ho.-fr : 0, slt.-f : 0	0 : 0
28	7·4	12·6	ENE	ENE : E	0·4	0·0	0·00	199	0, ho.-fr : 0, f : v, f	0 : 10
29	5·5	12·7	ENE	ENE : E	0·0	0·0	0·00	165	10 : 10, f	0 : 0, tk.-f
30	9·2	12·8	NE : ENE : E	SE : SSE : W	1·7	0·0	0·01	159	tk.-f : 0	0 : 0 : 10, th.-cl, slt.-r
31	9·1	12·8	SSE : SSW	SSW : SW	0·6	0·0	0·02	195	10 : 3, li.-cl : 2, cu.-s, li.-cl	2, li.-cl : 2, li.-cl : v, li.-cl
Means	4·3	11·8	...	...	...	...	0·38	323		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 41°·6, being 2°·3 *higher* than
The mean *Temperature of the Dew Point* for the month was 38°·3, being 2°·0 *higher* than
The mean *Degree of Humidity* for the month was 79·4, being 1·7 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·231, being 0in·017 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·7, being 0gr·2 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 548 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 4·8.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·363. The maximum daily amount of *Sunshine* was 10·4 hours on March 25.

The highest reading of the *Solar Radiation Thermometer* was 120°·0 on March 30; and the lowest reading of the *Terrestrial Radiation Thermometer* was 23°·7 on March 27.

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

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 9, S. 10, and W. 7.

The *Greatest Pressure of the Wind* in the month was 15·5 lbs. on the square foot on March 6. The mean daily *Horizontal Movement of the Air* for the month was 323 miles; the greatest daily value was 721 miles on March 11; and the least daily value was 107 miles on March 19.

Rain fell on 12 days in the month, amounting to 0in·724, as measured by gauge No. 6 partly sunk below the ground; being 0in·737 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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.		
April 1	...	29·825	69·0	41·5	27·5	53·0	+ 7·6	48·0	43·0	10·0	21·6	4·3	69	118·5	32·2	0·003	0·0	vP, vN
2	...	29·749	66·0	41·6	24·4	52·5	+ 6·8	47·9	43·2	9·3	21·1	2·8	71	123·9	33·1	0·007	0·0	mP : vP, vN : mP
3	...	29·696	68·2	39·1	29·1	51·7	+ 5·7	46·6	41·4	10·3	22·9	1·5	68	122·1	28·9	0·001	0·0	mP : wP : mP
4	...	29·901	58·2	41·0	17·2	47·9	+ 1·7	45·0	41·8	6·1	12·0	0·4	81	118·7	38·0	0·000	0·0	mP
5	In Equator	29·960	60·0	36·7	23·3	48·8	+ 2·6	45·5	41·9	6·9	15·6	1·2	78	115·5	29·2	0·000	1·5	mP : wP
6	New	29·843	54·9	43·4	11·5	48·9	+ 2·7	46·1	43·1	5·8	9·3	2·8	80	94·2	39·0	0·005	4·5	wP : mP
7	...	29·782	65·3	40·3	25·0	51·7	+ 5·6	48·2	44·7	7·0	14·7	1·1	77	120·8	36·1	0·000	0·0	mP
8	...	29·731	75·8	44·0	31·8	58·3	+12·4	51·8	46·0	12·3	26·1	2·4	64	130·9	36·3	0·000	1·5	mP : wP : mP
9	...	29·823	68·8	46·4	22·4	57·0	+11·4	51·0	45·5	11·5	22·0	3·5	65	128·8	40·0	0·000	4·5	mP : wP : vP
10	...	29·881	73·8	39·4	34·4	56·4	+10·9	50·8	45·6	10·8	22·2	1·1	67	133·0	32·9	0·000	0·0	vP, wN : mP
11	Perigee: Greatest Dec. N.	29·719	74·9	43·2	31·7	56·9	+11·4	51·5	46·5	10·4	23·1	1·7	68	131·0	36·6	0·014	0·5	mP : mP, sN
12	...	29·602	67·0	47·8	19·2	54·9	+ 9·2	50·2	45·7	9·2	17·7	2·7	71	126·4	41·5	0·000	1·5	wP : vP, wwN
13	First Quarter	29·620	63·0	42·3	20·7	51·5	+ 5·5	45·8	39·9	11·6	21·4	4·1	65	116·2	32·0	0·000	0·0	vP : vP, vN
14	...	29·579	56·5	40·4	16·1	49·9	+ 3·5	46·8	43·5	6·4	14·8	1·2	79	80·0	29·6	0·062	5·5	mP : vP, vN
15	...	29·566	62·9	48·0	14·9	53·5	+ 6·6	50·0	46·6	6·9	15·4	1·2	77	125·0	41·8	0·018	4·5	mP : vN, mP : vP, vN
16	...	29·287	54·2	46·3	7·9	50·3	+ 3·0	47·9	45·4	4·9	9·5	2·1	84	98·0	41·0	0·183	10·2	vP, vN
17	In Equator	29·348	60·9	43·0	17·9	50·4	+ 2·7	47·0	43·4	7·0	14·3	1·5	78	125·9	35·0	0·058	3·8	wP : vP, vN : mP
18	...	29·519	63·0	41·2	21·8	51·3	+ 3·2	47·9	44·4	6·9	16·7	1·5	78	125·9	33·0	0·000	0·0	sP : vP, wN : vP, sN
19	...	29·854	48·1	43·1	5·0	46·3	− 2·0	44·8	43·1	3·2	5·1	1·1	90	57·1	34·0	0·000	1·0	mP, sN : mP
20	Full	29·963	48·0	42·5	5·5	45·5	− 3·0	43·3	40·8	4·7	6·4	3·5	84	56·0	42·3	0·000	3·0	mP
21	...	29·887	55·0	37·9	17·1	46·0	− 2·5	42·0	37·4	8·6	14·4	0·9	73	123·2	30·0	0·000	0·0	mP
22	...	29·718	55·7	34·3	21·4	44·6	− 3·9	41·1	37·1	7·5	15·8	0·0	74	120·8	25·8	0·000	1·0	mP : wP : mP
23	...	29·469	58·9	38·0	20·9	48·6	+ 0·2	44·2	39·4	9·2	17·5	2·3	71	109·9	29·0	0·012	7·2	wP : wP, wN
24	...	29·533	61·0	40·5	20·5	49·8	+ 1·4	47·6	45·3	4·5	16·3	1·0	85	120·0	33·9	0·319	9·0	wP : vN, vP : sP, sN
25	Greatest Declination S.	29·547	62·0	45·2	16·8	51·3	+ 2·9	48·1	44·8	6·5	15·7	0·8	79	120·5	43·1	0·341	10·8	vP, sN : mP : vP, sN
26	Apogee	29·535	61·7	44·5	17·2	51·5	+ 3·1	48·7	45·8	5·7	13·3	1·1	81	113·9	39·6	0·000	3·0	vP, vN : vP, sN : sP
27	...	29·485	62·0	43·5	18·5	51·4	+ 2·9	48·0	44·5	6·9	13·2	0·6	78	118·2	38·0	0·162	0·0	vP, vN : vP, vN : mP
28	Last Quarter	29·741	61·5	40·2	21·3	49·3	+ 0·7	46·8	44·1	5·2	15·4	0·7	83	127·5	33·5	0·151	0·0	vP : vP, sN : wP
29	...	29·916	62·5	39·2	23·3	52·0	+ 3·2	48·7	45·3	6·7	14·3	0·9	78	88·0	30·2	0·001	0·0	wP : wwP
30	...	29·918	55·3	43·4	11·9	51·4	+ 2·4	50·2	49·0	2·4	4·2	1·0	92	64·7	37·0	0·105	2·0	wP, vN : wP, wN
Means	...	29·700	61·8	41·9	19·9	51·1	+ 3·9	47·4	43·6	7·5	15·7	1·7	76·3	111·8	35·1	Sum 1·442	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·700, being 0in·041 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 75°·8 on April 8; the lowest in the month was 34°·3 on April 22; and the range was 41°·5.
The mean of all the highest daily readings in the month was 61°·8, being 4°·6 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 41°·9, being 3°·0 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 19°·9, being 1°·6 *greater* than the average for the 50 years, 1841–1890.
The mean for the month was 51°·1, being 3°·9 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	2·3	12·9	SW : ENE	SW : SE	1·7	0·0	0·01	140	p.-cl : 10, li.-shs, f, glm	p.-cl : 10, slt.-r : v
2	3·5	13·0	SE	SE : E : ESE	1·0	0·0	0·02	153	0, d : v, cu.-s, li.-cl	v, n, sh.-r : 5, li.-cl : 0
3	9·7	13·0	ENE : E	E : ENE	0·9	0·0	0·02	170	0, d : 0	0 : 0
4	5·3	13·1	ENE	E : ENE	0·3	0·0	0·01	211	p.-cl : 10 : p.-cl	2, th.-cl, so.-ha, prh : 2, th.-cl
5	7·9	13·2	ENE	ENE : NE	4·7	0·0	0·32	324	p.-cl, d : f : 0	0 : v
6	0·8	13·2	NE : ENE	ENE : NE	2·7	0·0	0·20	337	v, sh.-r : 10, sc, slt.-r	9, th.-cl : 0
7	7·4	13·3	NE : ENE	ENE : E	0·5	0·0	0·00	220	0 : 10, f : p.-cl	0, so.-ha : 3, th.-cl : v
8	4·8	13·4	NE : SW	SSE : SSW	0·7	0·0	0·01	146	p.-cl, d : v, li.-cl, m	v, cu.-s, li.-cl : 0
9	7·0	13·4	SSW	S : SSW	1·7	0·0	0·05	242	p.-cl, d : v, ci.-s, li.-cl, so.-ha	2, cu.-s, li.-cl : 0, l
10	11·2	13·5	Calm : SE	S : SSE : ENE	0·2	0·0	0·00	119	0, d : 0, tk.-f : 1, li.-cl	2, li.-cl : 0
11	5·2	13·6	NE : ESE : S	E : SE	1·8	0·0	0·03	186	0, d : 0	8, cu.-s, th.-cl, t : p.-cl
12	4·8	13·6	S : SW	SW : W	1·8	0·0	0·03	238	10 : 10 : p.-cl	v, li.-cl : 10
13	4·7	13·7	WSW : W	W : SW	1·1	0·0	0·00	206	p.-cl : 5, cu, li.-cl	3, li.-cl : 2, cu.-s, li.-cl
14	0·0	13·7	ESE : SSE	SSE : S	3·4	0·0	0·17	307	p.-cl : 10 : 10, oc.-slt.-r, w	10 fq.-r : 10, li.-cl
15	4·5	13·8	SSW : S	SSW : SE	3·7	0·0	0·13	267	10, oc.-r : 10, oc.-shs : p.-cl, slt.-r	p.-cl : v, li.-cl, slt.-r : 10
16	0·8	13·9	ESE : S	S : SSW	17·5	0·0	0·70	426	10, oc.-r : 10, hy.-shs : v, fq.-r, st.-w	v, st.-w : v, slt.-r : v
17	6·0	13·9	S : SSE	S : SE	2·7	0·0	0·03	224	10 : 10 : 6, cu, li.-cl, shs.-r	6, cu, li.-cl, hy.-sh : 3, li.-cl
18	3·0	14·0	NE	ESE : NNE	0·0	0·0	0·00	151	3, li.-cl : 8, cu.-s, li.-cl	v, cu.-s, li.-cl : 8, cu.-s : v, li.-cl
19	0·0	14·1	N	N : NNE	2·3	0·0	0·13	330	p.-cl : 10, oc.-slt.-r : 10, slt.-r, glm	10 : 10
20	0·0	14·1	N : NE	NE : ESE	0·8	0·0	0·01	225	10 : 10	10 : 10, sc
21	4·3	14·2	E : NE	NE : E : ESE	0·3	0·0	0·00	168	v : 8, li.-cl	v, li.-cl : 0
22	2·8	14·2	ENE	ENE : SE : ESE	0·3	0·0	0·00	127	0 : 10 : v, li.-cl	2, li.-cl : 0 : p.-cl
23	0·1	14·3	ESE	SE	0·7	0·0	0·02	156	v : 10 : 10	10 : 10, th.-r : 10, oc.-slt.-r
24	3·9	14·4	SSW : SSE : S	S : SSW	6·2	0·0	0·37	315	v : 6, cu.-s, li.-cl, r	10, oc.-r : 10, fq.-r
25	6·4	14·4	SSE : SW	SSW : SSE	6·0	0·0	0·19	281	10 : 10, r	v, li.-cl, so.-ha : 10, th.-cl, r
26	4·7	14·5	S : SSE : SSW	SSW : S	5·9	0·0	0·28	302	10 : 8, cu, li.-cl	10, oc.-slt.-r : v, li.-cl : v, li.-cl
27	6·9	14·5	WSW : SW	SSW : SSE	3·7	0·0	0·10	292	10, r : 5, cu, li.-cl, so.-ha	4, cu, li.-cl : 3, li.-cl, d
28	2·9	14·6	SE : Calm : NE	NE : N	2·4	0·0	0·04	194	p.-cl, d : tk.-f : 4, cu, li.-cl	10, hy.-r, hl : 10 : 0, h, m
29	2·1	14·7	N : SW : NW	SE : SW	0·0	0·0	0·00	126	p.-cl : p.-cl : 10, th.-cl	10 : 10
30	0·0	14·7	WSW : Calm : NW	N : NNE	4·3	0·0	0·19	258	10, oc.-r : 10, r, glm	10, r, glm : 10 : p.-cl
Means	4·1	13·8	...	...	...	...	0·10	228		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 47°·4, being 3°·5 *higher* than
The mean *Temperature of the Dew Point* for the month was 43°·6, being 3°·4 *higher* than
The mean *Degree of Humidity* for the month was 76·3, being 0·3 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·284, being 0in·035 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·2, being 0gr·3 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 538 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 5·9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·296. The maximum daily amount of *Sunshine* was 11·2 hours on April 10.

The highest reading of the *Solar Radiation Thermometer* was 133°·0 on April 10; and the lowest reading of the *Terrestrial Radiation Thermometer* was 25°·8 on April 22.

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

The *Proportions of Wind* referred to the cardinal points were N. 6, E. 10, S. 11, and W. 3.

The *Greatest Pressure of the Wind* in the month was 17·5 lbs. on the square foot on April 16. The mean daily *Horizontal Movement of the Air* for the month was 228 miles; the greatest daily value was 426 miles on April 16; and the least daily value was 119 miles on April 10.

Rain fell on 13 days in the month, amounting to 1in·442, as measured by gauge No. 6 partly sunk below the ground; being 0in·219 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	...	30·108	54·1	39·2	14·9	46·6	− 2·6	43·4	39·8	6·8	13·0	1·6	78	114·7	32·8	0·000	0·0	mP
2	In Equator	30·007	56·6	36·4	20·2	47·4	− 2·0	44·5	41·3	6·1	12·1	1·2	80	103·8	30·3	0·038	3·2	mP
3	...	29·688	60·9	46·5	14·4	51·7	+ 2·0	48·7	45·7	6·0	10·7	0·8	80	102·9	40·9	0·037	3·8	wP : vP, vN
4	...	29·676	54·9	41·6	13·3	47·9	− 2·1	42·7	37·0	10·9	16·4	4·3	67	111·3	33·0	0·000	0·0	mP : sN, vP : mP
5	New	29·731	61·1	38·7	22·4	49·2	− 1·1	44·0	38·4	10·8	16·6	5·3	66	115·4	30·2	0·000	0·0	... : wP, wN : wP
6	...	29·634	62·7	45·2	17·5	52·7	+ 2·1	48·5	44·3	8·4	15·6	1·9	74	126·2	40·1	0·000	0·5	wP
7	...	29·694	64·7	41·2	23·5	51·6	+ 0·8	46·0	40·3	11·3	19·4	1·8	65	125·8	34·1	0·000	3·8	wP : wP, wN
8	Perigee: Greatest Dec. N.	29·839	63·3	43·5	19·8	52·7	+ 1·7	48·4	44·1	8·6	14·9	2·4	73	110·1	38·9	0·000	3·8	wP : wP, wN
9	...	29·671	61·3	43·3	18·0	51·9	+ 0·7	48·0	44·1	7·8	14·1	1·3	75	115·0	34·6	0·058	0·0	wP : wP, wN : sN, wP
10	...	29·639	58·9	40·4	18·5	48·4	− 3·1	46·6	44·7	3·7	10·3	0·0	87	123·1	34·6	0·312	0·0	mP : sP, sN : ssN, mP
11	...	29·650	61·0	39·6	21·4	49·8	− 1·9	47·9	45·9	3·9	12·7	0·0	84	111·0	32·8	0·056	2·0	mP : wP, vN : wP, wN
12	First Quarter	29·773	56·0	44·8	11·2	50·8	− 1·2	47·5	44·0	6·8	13·7	1·0	78	81·0	37·0	0·007	0·0	wP
13	...	29·907	64·1	38·2	25·9	51·5	− 0·8	46·2	40·8	10·7	19·1	1·8	67	114·0	30·0	0·000	2·0	mP : wP, wN
14	...	29·805	68·4	48·0	20·4	55·5	+ 2·9	50·2	45·2	10·3	19·7	2·7	68	131·9	40·0	0·000	6·0	wP: wP, wN : mP
15	In Equator	29·711	68·6	45·4	23·2	57·2	+ 4·4	53·1	49·3	7·9	18·5	1·2	75	128·6	36·8	0·030	0·0	mP : wP, vN
16	...	29·758	68·8	52·4	16·4	59·9	+ 6·8	57·6	55·6	4·3	10·6	0·4	86	101·3	50·5	0·062	0·0	vP, vN
17	...	29·933	70·0	48·9	21·1	57·2	+ 3·9	55·5	54·0	3·2	10·2	0·0	89	135·8	48·9	0·000	0·0	wP : mP: wP
18	...	29·989	67·6	43·9	23·7	54·2	+ 0·6	49·6	45·1	9·1	18·8	2·3	71	129·0	43·5	0·000	1·2	wP : vP, vN
19	Full	29·989	53·0	41·7	11·3	46·3	− 7·6	41·7	36·5	9·8	14·8	3·5	69	97·2	40·0	0·000	5·0	mP
20	...	29·791	50·9	36·3	14·6	43·9	−10·3	39·7	34·8	9·1	15·0	3·9	70	109·9	31·0	0·000	3·8	mP : vP, wN
21	...	29·776	55·0	32·3	22·7	43·5	−11·1	39·4	34·5	9·0	16·6	1·1	71	118·0	26·0	0·035	3·0	sP : vP, sN : mP
22	Greatest Declination S.	29·883	52·9	33·4	19·5	43·4	−11·6	40·3	36·6	6·8	16·5	1·5	77	108·0	26·1	0·020	3·0	sP : vP, vN : vP, vN
23	...	30·013	55·1	42·2	12·9	47·9	− 7·4	45·7	43·3	4·6	9·3	1·5	86	61·1	40·0	0·122	1·0	vP, vN : vP
24	Apogee	30·083	68·0	43·2	24·8	54·5	− 1·1	48·5	42·7	11·8	24·3	2·1	64	132·0	37·5	0·000	3·0	wP : vP, vN
25	...	29·867	70·4	42·4	28·0	56·1	+ 0·4	49·0	42·3	13·8	22·8	2·8	60	137·1	36·0	0·000	0·0	mP : vP
26	...	29·590	56·9	41·6	15·3	47·8	− 8·1	43·5	38·7	9·1	15·8	1·1	72	123·7	36·8	0·249	0·0	vP, wN : vP, sN
27	Last Quarter	29·491	56·3	40·5	15·8	46·4	− 9·6	43·4	40·0	6·4	15·3	0·2	79	118·6	34·5	0·069	0·0	sP, sN : wP, vN : vP, sN
28	...	29·436	57·3	38·1	19·2	46·0	−10·0	42·8	39·2	6·8	14·0	2·1	78	94·8	32·0	0·024	0·0	mP : vP, vN : vP, vN
29	In Equator	29·443	62·7	39·2	23·5	47·7	− 8·5	44·9	41·8	5·9	14·1	0·0	81	124·2	34·1	0·074	3·0	wP : vP, sN : vP, vN
30	...	29·560	65·0	42·1	22·9	50·2	− 6·3	46·7	43·0	7·2	16·9	1·1	77	131·0	36·1	0·070	1·5	wP : vP, ssN
31	...	29·632	61·2	40·4	20·8	49·6	− 7·2	46·7	43·6	6·0	13·6	0·9	80	128·6	33·8	0·257	4·5	mP : ssP, ssN : mP
Means	...	29·767	60·9	41·6	19·3	50·3	− 2·8	46·5	42·5	7·8	15·3	1·7	75·1	115·0	35·9	Sum 1·520	1·7	...
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·767, being 0in·019 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 70°·4 on May 25 ; the lowest in the month was 32°·3 on May 21 ; and the range was 38°·1.
The mean of all the highest daily readings in the month was 60°·9, being 3°·2 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 41°·6, being 2°·1 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 19°·3, being 1°·1 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 50°·3, being 2°·8 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	1·2	14·8	N	N : NNE : NNW	4·8	0·0	0·28	338	v : 10	p.-cl : 0
2	0·4	14·8	WSW	WSW : SW	2·1	0·0	0·03	230	10 : 10	10 : 10, th.-r
3	1·1	14·9	SW : WNW	NW : WSW	2·7	0·0	0·08	317	10, slt.-r : p.-cl, slt.-r	10 : v, th.-cl
4	2·9	14·9	WSW : WNW	NW : WNW	8·3	0·0	0·70	493	v : 7, cu.-s, li.-cl, w	9, cu.-s : 0, w
5	6·3	15·0	W : WNW	WNW : WSW : SW	1·4	0·0	0·04	293	p.-cl : v, cu.-s, li.-cl	p.-cl : 10
6	2·3	15·1	SW	SW	1·7	0·0	0·07	326	10 : 10 : 6, cu, cu.-s	9, cu, cu.-s : 5, cu.-s
7	9·0	15·1	WSW	WSW	4·0	0·0	0·18	375	p.-cl : v, cu.-s, li.-cl	5, cu.-s, li.-cl : 0
8	3·0	15·2	SW	SSW	3·2	0·0	0·13	349	0 : 7, li.-cl, so.-ha	9, cu.-s, li.-cl : 10
9	0·6	15·2	SSE : S	S : SSW	5·3	0·0	0·26	358	10 : 10	10 : v, r : v, li.-cl
10	5·3	15·3	S	SSW : S	10·4	0·0	0·27	370	p.-cl : v, oc.-shs	v, shs.-r : 2, li.-cl
11	3·4	15·3	SSW : S	S : SE : SSW	1·9	0·0	0·02	237	0, d : li.-cl : 10	10 : 10, fq.-th.-r
12	0·2	15·4	SW : NNW	NNW : NW	9·3	0·0	0·53	399	10 : 10 : 10, shs.-r, w	10 : 2, li.-cl : 0
13	8·7	15·4	SW : NW	W : SW : SSW	0·8	0·0	0·00	188	0 : 4, cu, li.-cl	5, li.-cl : p.-cl
14	6·2	15·5	SSE	SE : E	2·0	0·0	0·03	205	10 : 10 : v, th.-cl	2, li.-cl, so.-ha: 1, li.-cl : 0, lu.-ha
15	3·6	15·5	ENE	E	2·4	0·0	0·05	217	0 : 4, li.-cl, so.-ha	v, li.-cl : 10 : 10, fq.-th.-r
16	0·1	15·6	E	Calm : NNW	0·1	0·0	0·00	144	10, r : 10	10, oc.-slt.-r, glm : v, m
17	6·1	15·6	NNW	N : NNE	0·7	0·0	0·06	294	10, f : 10, tk.-f : v	1, li.-cl : 0 : 1, li.-cl
18	11·5	15·7	N : NNE	NNE	4·6	0·0	0·43	468	0 : v, th.-cl, so.-ha	2, li.-cl : 0 : 1, li.-cl, lu.-co
19	0·3	15·7	NNE : NE	NE : NNE	4·4	0·0	0·47	465	10 : 10, w	10 : 10
20	0·5	15·8	NNW : N	N : NE	2·2	0·0	0·11	326	10 : 10, oc.-slt.-r	10 : 10 : 0
21	5·9	15·8	NNW : N : NNE	NE : NNE	2·6	0·0	0·07	283	0, ho.-fr : 7, li.-cl	10, hy.-r, hl : 4, li.-cl : 0
22	4·6	15·9	NNW : N	N	3·8	0·0	0·25	384	0, ho.-fr : 0 : 8, cu, li.-cl	10, oc.-slt.-r : 10, fq.-th.-r
23	0·0	15·9	N : NNE	NE	1·6	0·0	0·10	367	10, oc.-r : 10, r	10, oc.-slt.-r : v, li.-cl
24	13·0	16·0	NNE : NE	NE : NNE	13·0	0·0	0·75	505	5, li.-cl : v, li.-cl	0, w : 0
25	10·3	16·0	N	NNW : NNE	4·4	0·0	0·15	337	0, d : 0	1, th.-cl : 5, th.-cl, so.-ha : 10
26	5·6	16·0	NNW	NNW	6·4	0·0	0·30	367	10 : p.-cl, sh.-r : p.-cl, sqs	v, oc.-shs : v, oc.-shs : 10, hy.-r
27	3·3	16·1	NNW	NNW : W	11·5	0·0	1·67	538	10, w, shs.-r : 10, oc.-slt.-r, w	v, shs.-r, w : v, hl, r : 0
28	3·2	16·1	SSW	SSW : S	3·6	0·0	0·03	237	0 : 9, cu.-s	10, slt.-r : p.-cl : v, th.-cl
29	4·1	16·1	SW	SW : SSW	4·1	0·0	0·02	205	p.-cl, d : 2, li.-cl : p.-cl	10, hy.-r, t : v, oc.-r : 10, oc.-r
30	7·0	16·2	SW : SSW	SSW : SW	3·6	0·0	0·04	264	v : 4, cu, li.-cl	v, oc.-shs, t : v, shs.-r, hl
31	6·8	16·2	SSW : SW	SW : SSW	3·7	0·0	0·06	279	v, slt.-r : v, shs.-r : t.-sm, hl	v, oc.-shs : 3, li.-cl : 1, li.-cl
Means	4·4	15·6	...	...	...	...	0·23	328		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 46°·5, being 2°·7 *lower* than
The mean *Temperature of the Dew Point* for the month was 42°·5, being 2°·8 *lower* than
The mean *Degree of Humidity* for the month was 75·1, being 0·1 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·272, being 0in·031 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·1, being 0gr·3 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 540 grains, being 2 grains *greater* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·283. The maximum daily amount of *Sunshine* was 13·0 hours on **May 24.**

The highest reading of the *Solar Radiation Thermometer* was 137°·1 on May 25; and the lowest reading of the *Terrestrial Radiation Thermometer* was 26°·0 on **May 21.**

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

The *Proportions of Wind* referred to the cardinal points were N. 12, E. 3, S. 8, and W. 8.

The *Greatest Pressure of the Wind* in the month was 13·0 lbs. on the square foot on May 24. The mean daily *Horizontal Movement of the Air* for the month was 328 miles; the greatest daily value was 538 miles on May 27; and the least daily value was 144 miles on May 16.

Rain fell on 17 days in the month, amounting to 1in·520, as measured by gauge No. 6 partly sunk below the ground; being 0in·483 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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.		
June 1	...	29·713	63·3	43·3	20·0	53·6	− 3·6	50·2	46·9	6·7	14·4	0·4	78	119·7	35·8	0·084	3·5	mP : vP, vN
2	...	29·607	65·0	50·7	14·3	56·9	− 0·8	54·1	51·5	5·4	11·8	1·0	82	112·2	45·0	0·098	4·5	wP, vN : mP
3	New	29·799	68·1	49·2	18·9	58·4	+ 0·4	55·6	53·1	5·3	11·0	0·9	83	105·0	43·6	0·004	1·0	wP : mP
4	...	29·652	68·1	52·2	15·9	58·8	+ 0·6	57·1	55·6	3·2	7·0	0·4	89	111·4	47·8	0·483	4·0	vP : ssP, ssN : wP
5	Greatest Dec. N: Perigee	29·620	67·7	51·2	16·5	57·5	− 0·8	53·6	50·0	7·5	14·1	3·2	76	126·9	46·6	0·000	0·2	wP
6	...	29·568	57·3	49·1	8·2	53·1	− 5·2	51·2	49·3	3·8	6·3	0·6	87	84·9	48·1	0·500	0·8	wP : wP : vN
7	...	29·622	63·0	48·1	14·9	53·2	− 5·0	49·7	46·2	7·0	16·2	0·6	77	112·0	47·1	0·010	0·0	vP : vP, wN
8	...	29·794	64·5	46·3	18·2	55·2	− 3·0	51·7	48·3	6·9	11·7	2·6	78	97·3	40·9	0·000	1·7	mP : vP
9	...	29·709	67·9	52·6	15·3	57·3	− 0·9	54·5	52·0	5·3	12·3	1·6	82	127·8	50·9	0·079	5·3	wP, vN : wP, wN : mP
10	First Quarter	29·664	65·3	51·4	13·9	56·8	− 1·4	54·4	52·2	4·6	10·4	0·4	85	101·8	46·2	0·090	0·0	wP
11	In Equator	29·562	62·0	47·0	15·0	52·2	− 6·2	48·7	45·1	7·1	14·8	0·8	77	120·2	41·9	0·190	0·0	mP : ssP, ssN
12	...	29·700	62·9	45·1	17·8	53·4	− 5·2	50·3	47·2	6·2	12·7	1·0	79	111·1	39·5	0·027	0·5	mP : vP, vN
13	...	29·803	57·7	48·5	9·2	52·4	− 6·4	49·5	46·6	5·8	8·7	1·2	81	85·3	45·8	0·008	1·5	vP, wN : mP
14	...	29·958	72·8	46·0	26·8	59·7	+ 0·8	53·9	48·8	10·9	20·5	1·5	68	143·2	39·1	0·000	0·0	vP
15	...	29·952	74·0	50·8	23·2	61·5	+ 2·5	57·3	53·7	7·8	14·6	2·6	76	127·7	47·8	0·047	0·0	mP : wP : mP, sN
16	...	29·938	70·4	52·6	17·8	60·1	+ 1·1	55·7	51·8	8·3	17·6	0·6	74	122·3	49·1	0·090	0·0	sN, mP : wP, wN
17	...	29·794	69·7	49·6	20·1	58·3	− 0·8	55·6	53·2	5·1	13·0	0·2	83	130·0	46·1	0·004	0·0	vP : wP : wP
18	Full: Greatest Dec. S.	29·645	64·6	49·4	15·2	55·1	− 4·1	51·9	48·8	6·3	15·0	0·6	80	127·7	43·0	0·114	0·0	vP : vP, vN : mP
19	...	29·889	67·8	48·3	19·5	56·5	− 3·0	51·3	46·5	10·0	16·9	2·6	69	121·0	47·6	0·000	4·0	mP : vP, wN
20	Apogee	29·861	62·3	52·5	9·8	57·8	− 2·1	56·2	54·8	3·0	6·3	0·4	90	84·1	46·7	0·214	3·0	wP : vP, vN
21	...	29·987	75·4	47·9	27·5	61·0	+ 0·7	55·5	50·7	10·3	18·2	1·0	69	136·1	41·7	0·000	0·2	mP : wP : wP, wN
22	...	29·966	75·3	50·2	25·1	60·8	+ 0·1	57·5	54·7	6·1	13·9	0·4	81	140·0	46·1	0·000	0·8	wP : wP, wN : mP
23	...	29·825	72·7	55·7	17·0	62·5	+ 1·5	59·1	56·2	6·3	15·5	1·5	80	138·3	49·6	0·000	6·0	wP
24	...	29·823	68·1	52·0	16·1	60·9	− 0·3	55·0	49·9	11·0	18·0	3·0	67	119·3	47·0	0·000	1·5	wP : wwP, wwN
25	...	30·028	79·6	48·5	31·1	63·8	+ 2·5	58·0	53·2	10·6	19·4	3·6	69	137·3	43·3	0·000	4·5	wP, wwN
26	In Equator; Last Quarter	30·110	72·8	55·2	17·6	64·5	+ 3·1	60·0	56·3	8·2	16·0	3·0	75	124·0	49·0	0·000	0·0	mP
27	...	30·098	73·6	50·2	23·4	60·8	− 0·6	55·5	50·9	9·9	22·1	1·8	70	134·8	43·2	0·000	0·0	mP : wP
28	...	30·097	81·1	50·9	30·2	64·6	+ 3·3	58·0	52·5	12·1	22·4	2·8	65	143·0	44·1	0·000	0·0	wP : wP : mP
29	...	30·175	80·3	50·2	30·1	63·6	+ 2·4	57·2	51·9	11·7	23·8	2·4	66	143·5	44·9	0·000	0·0	mP : wP
30	...	30·197	82·1	50·0	32·1	66·7	+ 5·5	59·2	53·2	13·5	25·8	3·2	62	143·2	42·0	0·000	0·0	mP : wP, wN : wP
Means	...	29·839	69·2	49·8	19·4	58·6	− 0·8	54·6	51·0	7·5	15·0	1·5	76·6	121·0	45·0	Sum 2·042	1·4	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·839, being 0in·028 *higher* than the average for the 50 years, 1841-1890.

Temperature of the Air.

The highest in the month was 82°·1 on June 30; the lowest in the month was 43°·3 on June 1; and the range was 38°·8.
The mean of all the highest daily readings in the month was 69°·2, being 1°·7 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 49°·8, being 0°·1 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 19°·4, being 1°·6 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 58°·6, being 0°·8 *lower* than the average for the 50 years, 1841-1890.

MONTH and DAY, 1894.	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	4·0	16·2	SSW	S : SE	1·0	0·0	0·00	179	p.-cl : p.-cl : 8,cu.-s,li.-cl	10, slt.-r : 10 . .
2	2·1	16·3	SSW : SSE : SW	SSW : SW	8·3	0·0	0·48	440	10, fq.-r : 10, oc.-shs	v, li.-cl : v
3	1·4	16·3	SW	SSW	0·6	0·0	0·02	246	p.-cl : p.-cl : 10, oc.-slt.-r	p.-cl, slt.-r : 4, li.-cl : p.-cl, l
4	0·5	16·3	ENE : ESE	ESE : SSW	2·0	0·0	0·06	270	10 : 10, hy.-r, t	10 : v, li.-cl
5	3·2	16·4	SSW	SSW	3·6	0·0	0·17	406	v : 10 : 8, cu, li.-cl	9, cu.-s : 10 . . : v, cu.-s
6	0·0	16·4	WSW : N	NE : N	2·3	0·0	0·11	312	10 : 10	10 : 10, r . . : 10, c.-r
7	2·5	16·4	NNW	NNW : NW	2·2	0·0	0·09	297	10, r : 10	8, cu, li.-cl : 4, li.-cl : v, li.-cl
8	0·6	16·4	WSW : SW	SW : SSW	0·6	0·0	0·02	205	p.-cl : 10	10 : 10
9	0·7	16·4	SSW : SW	WSW : SW	2·0	0·0	0·05	217	10, r : 10, hy.-r	10, oc.-slt.-r : p.-cl : 10
10	0·0	16·5	SW	SSW : SW	3·6	0·0	0·11	326	10 : 10	10 : 10, oc.-r. , : 10
11	2·7	16·5	WSW : W	W : WNW : WSW	7·2	0·0	0·45	441	10 : p.-cl : v, oc.-slt.-r, w	10, oc.-r : 10 . . : 10, th.-cl
12	0·4	16·5	W : NNW	WNW : WSW	1·1	0·0	0·05	249	10 : 10 : 9, th.-cl	10 : v . . : 10, shs.-r
13	0·2	16·5	WSW : NNW	NNW	2·9	0·0	0·10	317	10, slt.-r : 10 : 10, th.-r	10 : 10
14	4·7	16·5	W : NW	NW : NNW	2·5	0·0	0·04	226	v : p.-cl, m	3, cu, li.-cl : 4, cu, li.-cl : 10
15	1·9	16·5	NW : SW	WSW : SW	2·3	0·0	0·06	278	p.-cl : 8, cu.-s, th.-cl, m	10, th.-cl : v, slt.-r
16	5·8	16·5	WSW : NW	NNW : ENE	0·6	0·0	0·00	160	10, hy.-sh : 6, ci.-cu, li.-cl, h	6, li.-cl, h : p.-cl, tk.-f
17	5·1	16·6	Calm : S : SSW	SSW : SW	2·6	0·0	0·09	272	10, f : v, li.-cl : 8,ci.-cu,li.-cl	10 : 10, slt.-r : 10
18	2·1	16·6	SW	SSW : SE : NNW	1·7	0·0	0·04	217	p.-cl : v, cu, li.-cl : p.-cl, slt.-r	10, r : 10, sh.-r
19	2·3	16·6	NNW : NW	WSW : SW	1·9	0·0	0·04	260	10 : 8, cu, th.-cl	10 : v, ci.-cu : 10
20	0·0	16·6	SSW	SW : WSW	2·1	0·0	0·09	303	10 : 10	10, slt.-r : v
21	11·4	16·6	NNW : N : SW	SW : SSW	0·3	0·0	0·00	159	v : 0 : v, ci.-cu, slt.-h	2, cu, li.-cl : 2, li.-cl
22	3·8	16·6	S : SSW	SW	4·6	0·0	0·07	260	10 : 10 : p.-cl, slt.-r	6, cu, li.-cl : 4, cu, li.-cl : v
23	4·3	16·6	SSW : SW	SSW	2·4	0·0	0·12	310	10 : 10 : v, cu, li.-cl	9, li.-cl : 10 : 10
24	2·0	16·6	SW : WSW	W : WNW : WSW	3·0	0·0	0·24	365	10 : p.-cl : 4,cu,li.-cl,h	v, cu, li.-cl, so.-ha : 0
25	11·5	16·6	SW	WSW : W : NW	1·9	0·0	...	263	0, d : 0	0 : 4, ci.-cu, cu.-s : 10
26	0·6	16·5	NW : NE	NE : ENE	1·2	0·0	...	193	10 : v, cu, li.-cl	10 : 10, slt.-r : v, li.-cl
27	13·4	16·5	N : NE	NE : E	2·2	0·0	...	231	0, d : 0	0 : 0
28	14·1	16·5	ENE	ENE : E	2·0	0·0	...	254	0, d : 0	1, cu, cu.-s, li.-cl : 0 : 0
29	11·7	16·5	NE : ENE	E : ENE	2·0	0·0	...	261	v : 0	0 : 0
30	14·2	16·5	NE	ENE	2·5	0·0	0·12	273	0 : 0	0 : 0 . .
Means	4·2	16·5	...	...	...	...	(25 days) 0·10	273		
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°·6, being 0°·4 *lower* than
The mean *Temperature of the Dew Point* for the month was 51°·0, being 0°·1 *lower* than
The mean *Degree of Humidity* for the month was 76·6, being 2·6 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·374, being 0in·001 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·2, being *the same as*
The mean *Weight of a Cubic Foot of Air* for the month was 532 grains, being 1 grain *greater* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·257. The maximum daily amount of *Sunshine* was 14·2 hours on June 30.

The highest reading of the *Solar Radiation Thermometer* was 143°·5 on June 29; and the lowest reading of the *Terrestrial Radiation Thermometer* was 35°·8 on June 1.

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

The *Proportions of Wind* referred to the cardinal points were N. 6, E. 4, S. 10, and W. 10.

The *Greatest Pressure of the Wind* in the month was 8·3 lbs. on the square foot on June 2. The mean daily *Horizontal Movement of the Air* for the month was 273 miles; the greatest daily value was 441 miles on June 11; and the least daily value was 159 miles on June 21.

Rain fell on 14 days in the month, amounting to 2in·042, as measured by gauge No. 6 partly sunk below the ground; being 0in·020 *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	...	30.098	82.0	54.1	27.9	67.7	+ 6.4	62.3	58.0	9.7	21.1	1.8	71	141.0	50.8	0.000	0.0	wP
2	Greatest Declination N.	29.961	83.0	57.5	25.5	68.8	+ 7.4	63.6	59.5	9.3	18.4	1.1	72	142.3	53.6	0.000	0.0	wP : vP : wP
3	New: Perigee	29.949	73.0	56.5	16.5	63.3	+ 1.6	58.2	53.9	9.4	17.1	1.3	72	118.0	50.0	0.028	0.0	mP, wN : vP
4	...	30.004	76.2	50.2	26.0	62.2	+ 0.3	55.8	50.3	11.9	20.9	3.2	65	132.7	44.0	0.000	0.0	mP : mP : wP
5	...	29.984	79.6	51.9	27.7	65.9	+ 3.8	58.1	51.8	14.1	25.5	2.8	60	142.7	43.8	0.000	0.0	mP : ... : wP
6	...	29.821	86.0	53.6	32.4	69.6	+ 7.4	62.4	56.8	12.8	29.4	1.4	63	142.2	48.0	0.130	3.0	mP : wP : sP, ssN
7	...	29.826	76.5	53.2	23.3	62.4	+ 0.3	56.7	51.7	10.7	23.0	1.5	69	149.4	46.0	0.026	0.0	wP : vP, vN
8	In Equator	29.871	74.0	50.2	23.8	59.6	− 2.4	54.2	49.4	10.2	21.8	1.0	69	144.0	41.2	0.171	1.5	mP : wP : vP, vN
9	First Quarter	29.627	73.6	54.5	19.1	62.2	+ 0.2	59.1	56.4	5.8	14.9	0.4	82	134.8	51.0	0.164	4.5	wP : vP, vN : wP
10	...	29.378	67.9	54.0	13.9	59.5	− 2.6	56.1	53.1	6.4	13.3	0.4	80	119.4	48.4	1.010	0.0	wP : wP : vP, ssN
11	...	29.204	71.7	52.0	19.7	59.1	− 3.2	55.8	52.8	6.3	15.5	0.6	80	134.2	46.5	0.386	1.7	ssP, ssN : vP, vN : mP
12	...	29.270	70.2	51.9	18.3	58.9	− 3.7	55.5	52.4	6.5	16.2	1.0	80	141.2	46.2	0.471	7.0	vP, wN : ssP, ssN : mP
13	...	29.479	65.8	52.3	13.5	58.2	− 4.7	55.0	52.1	6.1	11.7	1.4	80	127.6	45.3	0.053	9.2	wP : vP, vN
14	...	29.519	71.2	49.0	22.2	58.3	− 4.8	54.7	51.5	6.8	15.8	0.4	78	143.0	42.4	0.016	5.5	wP : vP, vN : vP
15	Greatest Declination S.	29.688	63.1	52.1	11.0	57.1	− 6.1	55.2	53.5	3.6	7.4	0.4	88	89.0	44.6	0.033	1.7	wP : vP
16	...	29.723	61.7	51.5	10.2	57.8	− 5.4	56.3	55.0	2.8	5.5	1.4	90	82.2	45.1	0.105	0.7	mP : vP, vN : wP
17	Apogee: Full	29.631	69.7	56.2	13.5	60.7	− 2.4	55.9	51.8	8.9	14.2	2.8	72	123.3	52.9	0.006	0.0	wP : mP : mP
18	...	29.528	68.4	53.2	15.2	58.9	− 4.1	54.7	50.9	8.0	14.4	3.4	75	140.7	51.2	0.007	0.0	wP : vP : mP
19	...	29.618	69.3	53.2	16.1	59.1	− 3.9	55.4	52.1	7.0	16.6	2.5	78	116.4	46.0	0.024	0.0	vP, vN
20	...	29.758	69.3	50.4	18.9	59.2	− 3.8	55.2	51.6	7.6	14.6	1.0	76	136.5	43.2	0.006	1.0	vP : mP
21	...	29.666	72.0	54.5	17.5	61.2	− 1.8	59.3	57.7	3.5	11.0	0.4	89	143.0	52.5	0.120	3.0	wP : vP : mP
22	...	29.705	72.0	52.5	19.5	61.2	− 1.7	57.1	53.5	7.7	17.1	1.2	77	126.0	47.3	0.000	0.0	mP : vP
23	In Equator	29.653	62.0	57.2	4.8	58.6	− 4.2	57.5	56.5	2.1	5.3	0.8	93	79.2	55.5	0.184	0.0	... : vP : vP
24	...	29.787	72.3	56.4	15.9	61.9	− 0.7	60.3	59.0	2.9	8.5	0.2	90	102.1	56.0	0.142	1.5	wP : wP : sP, sN
25	Last Quarter	29.792	77.2	55.3	21.9	64.9	+ 2.5	61.1	58.0	6.9	16.3	0.2	78	148.2	47.0	0.072	4.5	wP : wP : vP
26	...	29.761	75.7	54.4	21.3	63.0	+ 0.7	58.9	55.4	7.6	15.8	1.5	76	143.2	46.7	0.000	0.0	wP : wP : vP, wN
27	...	29.810	79.4	51.8	27.6	63.5	+ 1.2	59.2	55.6	7.9	20.7	0.2	76	144.9	45.1	0.000	0.0	sP : wP : sP
28	...	29.912	78.1	53.1	25.0	65.1	+ 2.8	60.3	56.3	8.8	19.6	0.6	74	141.9	47.2	0.000	0.0	sP : mP
29	Greatest Declination N.	29.803	78.0	57.4	20.6	64.8	+ 2.5	61.7	59.1	5.7	14.3	0.0	82	131.2	51.8	0.007	0.0	mP : vP, ssN
30	...	29.793	67.8	57.8	10.0	61.2	− 1.1	58.0	55.2	6.0	12.6	1.3	81	93.9	51.9	0.098	2.0	vP, wN : mP
31	Perigee	29.831	76.9	55.4	21.5	64.0	+ 1.7	60.1	56.9	7.1	14.2	1.7	77	118.0	51.3	0.000	1.2	wP : wP, wN : wP
Means	...	29.724	73.0	53.7	19.4	61.9	− 0.6	57.9	54.4	7.4	15.9	1.2	77.2	128.1	48.1	Sum 3.259	1.5	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 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.724, being 0in.069 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 86°.0 on July 6; the lowest in the month was 49°.0 on July 14; and the range was 37°.0.
The mean of all the highest daily readings in the month was 73°.0, being 1°.0 *lower* 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°.6 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 19°.4, being 1°.5 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 61°.9, being 0°.6 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1894.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
July 1	13·7	16·5	ENE	E : ENE	1·8	0·0	0·08	264	0 : 0	0 : 0
2	4·6	16·5	Variable	SSW : SW	1·5	0·0	0·04	202	0 : v : 8, ci.-cu, li.-cl	8, cu, cu.-s : v, cu, ci.-cu : 3, li.-cl
3	0·7	16·4	WSW : NW	NW : NNW	1·3	0·0	0·06	245	10, sh.-r : 10 : 10	8, cu, li.-cl : 8, li-cl, cu.-s
4	4·2	16·4	SW : NNW	NNW : ESE : SSW	0·2	0·0	0·00	145	4, li.-cl : 4, li.-cl : 8, cu.-s, th.-cl	8, cu, li.-cl : 0
5	13·2	16·4	SW : SSE	SE : ESE	1·1	0·0	0·02	156	0 : 0	2, li.-cl : 2, li.-cl
6	9·2	16·4	E : ESE	SE : SSE : SSW	3·7	0·0	0·09	201	0 : 0 : 1, li.-cl	4, li.-cl : 10, t.-sm, hy.-r : 10, t.-sm, hy.-r
7	8·0	16·3	SSW : SW	SW	4·8	0·0	0·18	357	p.-cl : v, cu, li.-cl	8, cu.-s, li.-cl : v, cu.-s, shs.-r
8	8·0	16·3	SW	SSW : SE	2·2	0·0	0·09	302	0 : 0 : v, cu, cu.-s	8, cu.-s : 8, cu.-s : 10, fq.-r
9	5·8	16·3	SSE : SW	SW	3·5	0·0	0·07	296	10, slt.-r : 10, shs.-r : v, shs.-r	v, shs.-r : v, slt.-r
10	0·3	16·3	SW	S : SSE : NNE	1·1	0·0	0·01	211	v : 10	10, slt.-r : 10, hy.-r
11	7·5	16·2	NNW : W : WSW	SW : SSW	5·8	0·0	0·31	403	10, r : 10 : v, sh.-r	v, li.-cl : 4, li.-cl : 0
12	5·6	16·2	SSE : SW : WSW	SW	5·7	0·0	...	355	10, hy.-r : v, oc.-shs	8, li.-cl, oc.-hy.-shs : 2, li.-cl : v, sh.-r
13	4·5	16·2	SSW	SSW : SW	3·4	0·0	...	334	10 : v, cu.-s, oc.-shs : 10, oc.-shs	10, li.-shs : v, sh.-r : 1, li.-cl
14	8·2	16·1	SW	SW	0·5	0·0	...	200	2, li.-cl : 2, li.-cl : 7, cu, li.-cl, sh.-r	v, slt.-r : v, li.-cl, t : 10
15	0·0	16·1	SW : WSW	W	0·7	0·0	...	234	10 : 10 : 10, oc.-r	10, oc.-r : 10
16	0·0	16·1	WSW : SW	SSW	3·8	0·0	...	375	10 : 10 : 10, oc.-slt.-r	10, sc, oc.-slt.-r : 10, r : 10, sc, sh.-r
17	4·2	16·0	SW	WSW	6·3	0·0	...	457	10 : 10, sh.-r : 7, li.-cl	6, cu, li.-cl : 7, cu, li.-cl : 10, s
18	4·4	16·0	SW : WSW	WSW	7·3	0·0	...	458	10, slt.-r : v, sh.-r	v : v : 10
19	2·0	16·0	WSW : W	WSW	2·7	0·0	0·10	338	10 : 10 : 8, cu.-s, oc.-slt.-r	v : 6, cu.-s, li.-cl, slt.-r : 2, li.-cl
20	4·5	15·9	SW	SSW	1·9	0·0	0·08	275	v : 5, cu, li.-cl	6, cu, li.-cl : 7, cu, li.-cl : 10
21	1·5	15·9	SE : ENE : SW	WSW : SSW	0·4	0·0	0·00	191	10, slt.-r : 10, oc.-th.-r	p.-cl : p.-cl : 4, li.-cl
22	1·1	15·8	SW	SW : N : NE	0·3	0·0	0·00	162	0 : p.-cl : 7, ci.-cu, li.-cl, h	8, ci.-cu, li.-cl : 10
23	0·0	15·8	NE : N : NNW	N : NNE	0·3	0·0	0·00	197	10, hy.-shs : 10 : 10, oc.-slt.-r	10 : 10, r : 10
24	0·0	15·7	NNE	NE : E : ENE	2·2	0·0	0·02	241	10 : 10, sh.-r : 10, slt.-r	10 : 10 : 10, hy.-r
25	9·0	15·7	SE : S	SSW : ESE	2·9	0·0	0·02	185	10, shs.-r : 4, cu, li.-cl	6, li.-cl, sh.-r : v
26	5·8	15·7	ESE : S	S : SW	0·8	0·0	0·01	150	10 : 7, cu, ci.-cu	8, cu, cu.-s : 3, li.-cl : 0, slt.-f
27	7·4	15·6	SW : S	SE : S	0·0	0·0	0·00	116	0, hy.-d : f : 4, ci.-cu, li.-cl	v, cu, li.-cl : p.-cl : 0
28	10·6	15·6	SSE : Calm : NE	E	1·0	0·0	0·03	173	p.-cl, hy.-d : 3, ci.-cu, li.-cl	v, li.-cl : 8, li.-cl : 8, ci.-cu, cu.-s
29	0·7	15·5	ENE	ENE : WSW : NNE	1·7	0·0	0·02	210	10 : 10 : 7, cu.-s, li.-cl	10, t : 10, slt.-r
30	1·5	15·5	N	NNW : N	2·4	0·0	0·10	292	10 : 10, shs.-r, l, t : 10	10 : v : p.-cl
31	2·6	15·4	NNW : SW : SE	SW	0·3	0·0	0·00	146	10 : 10, th.-cl, m	9, cu.-s : v : 0, hy.-d
Means	4·8	16·0	...	...	...	...	(24 days) 0·06	254		
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°·1 *higher* than
The mean *Temperature of the Dew Point* for the month was 54°·4, being 0°·5 *higher* than
The mean *Degree of Humidity* for the month was 77·2, being 3·4 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·424, being 0in·008 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·7, being 0gr·1 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 527 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 6·6.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·300. The maximum daily amount of *Sunshine* was 13·7 hours on July 1.

The highest reading of the *Solar Radiation Thermometer* was 149°·4 on July 7; and the lowest reading of the *Terrestrial Radiation Thermometer* was 41°·2 on July 8.

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

The *Proportions of Wind* referred to the cardinal points were N. 4, E. 5, S. 12, and W. 10.

The *Greatest Pressure of the Wind* in the month was 7·3 lbs. on the square foot on July 18. The mean daily *Horizontal Movement of the Air* for the month was 254 miles; the greatest daily value was 458 miles on July 18; and the least daily value was 116 miles on July 27.

Rain fell on 22 days in the month, amounting to 3in·259, as measured by gauge No. 6 partly sunk below the ground; being 0in·789 *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	New	29·722	67·8	57·5	10·3	61·4	− 0·8	58·7	56·4	5·0	9·7	1·7	84	108·0	53·2	0·005	7·8	wP
2	...	29·512	69·9	55·2	14·7	60·8	− 1·3	57·9	55·4	5·4	11·9	2·1	83	131·1	51·8	0·056	4·2	wP : vP, sN
3	...	29·462	70·8	52·1	18·7	60·7	− 1·4	55·9	51·7	9·0	18·2	1·4	72	140·6	44·8	0·004	3·8	mP : vP, wN : mP
4	In Equator	29·599	71·9	54·4	17·5	61·0	− 1·2	57·8	55·0	6·0	14·9	1·7	81	128·9	46·8	0·005	0·0	wP
5	...	29·723	71·0	56·7	14·3	62·2	− 0·1	57·5	53·5	8·7	17·3	0·9	73	140·1	52·6	0·021	0·5	wP : mP : wP
6	...	29·641	68·2	56·9	11·3	60·7	− 1·7	58·8	57·2	3·5	8·3	0·6	89	107·2	53·0	0·150	1·5	wwP : vP, sN
7	...	29·713	74·1	55·9	18·2	63·0	+ 0·5	58·5	54·7	8·3	19·8	0·6	74	138·5	48·3	0·002	3·2	vP : wP, wN
8	First Quarter	29·606	69·0	57·4	11·6	62·1	− 0·4	59·0	56·3	5·8	9·9	1·9	82	120·0	55·7	0·016	5·0	wP
9	...	29·621	71·9	54·0	17·9	60·7	− 1·8	56·7	53·3	7·4	14·0	0·9	77	137·2	47·2	0·046	3·8	mN, wP : vP : vP
10	...	29·765	70·2	54·0	16·2	58·7	− 3·8	55·7	53·0	5·7	15·5	1·0	81	124·2	50·0	0·281	0·0	wP : vP, vN : ssP, ssN
11	...	29·939	66·9	51·9	15·0	58·2	− 4·3	54·8	51·7	6·5	13·7	1·0	79	125·2	46·0	0·000	0·0	sP : vP, sN
12	Greatest Declination S.	29·884	69·3	54·1	15·2	59·3	− 3·2	56·4	53·8	5·5	13·1	0·9	83	131·1	46·2	0·120	1·2	mP : mP, mN
13	Apogee	29·768	69·7	57·2	12·5	61·1	− 1·3	55·5	50·7	10·4	20·2	0·9	69	137·0	54·8	0·000	4·3	vP
14	...	29·600	80·5	56·4	24·1	65·3	+ 3·0	61·0	57·5	7·8	20·2	0·0	77	143·2	54·0	0·006	1·5	wP : wP, wN
15	...	29·422	70·6	54·5	16·1	60·0	− 2·1	55·3	51·2	8·8	17·1	2·6	72	140·3	48·0	0·074	5·0	wP : vP, vN
16	Full	29·610	62·0	51·8	10·2	55·8	− 6·2	54·2	52·7	3·1	7·4	0·8	90	100·0	45·7	0·697	0·0	mP : ssP, ssN : mP
17	...	29·901	62·5	45·2	17·3	54·4	− 7·4	50·7	47·1	7·3	12·3	1·5	76	110·0	35·6	0·003	0·0	mP : vP : sP, sN
18	...	29·915	67·0	51·6	15·4	57·4	− 4·2	53·7	50·3	7·1	14·2	1·8	77	124·9	44·6	0·044	0·5	mP : vP, sN
19	In Equator	29·844	65·0	50·4	14·6	56·8	− 4·6	54·6	52·6	4·2	9·9	1·6	86	99·2	42·4	0·028	4·7	mP : mP : vP, wN
20	...	29·697	65·7	51·4	14·3	57·7	− 3·6	52·2	47·2	10·5	19·6	1·3	68	128·8	41·5	0·000	3·8	wP : vP : vP
21	...	29·670	63·5	44·2	19·3	55·5	− 5·6	52·5	49·6	5·9	16·3	0·9	81	114·4	34·1	0·002	0·0	mP : vP : vP
22	...	29·660	73·2	52·1	21·1	60·1	− 0·9	56·4	53·2	6·9	16·7	0·6	78	133·3	43·9	0·000	0·7	mP
23	...	29·674	58·6	54·0	4·6	57·2	− 3·7	56·8	56·4	0·8	1·3	0·0	97	66·3	45·0	0·953	7·3	vP : sP, sN : vP, wN
24	Last Quarter	29·866	64·4	56·5	7·9	59·4	− 1·4	58·4	57·5	1·9	4·7	0·6	94	95·0	54·8	0·072	1·2	wP : vP : sP, sN
25	...	29·901	60·7	55·6	5·1	57·8	− 3·0	56·6	55·5	2·3	4·2	0·8	92	77·2	54·4	0·448	5·3	sP, sN : wP : sP, sN
26	Greatest Declination N.	29·800	79·0	57·5	21·5	65·6	+ 4·8	62·0	59·0	6·6	15·3	0·2	80	137·8	56·2	0·000	4·5	wP
27	...	29·882	65·8	52·9	12·9	58·8	− 1·9	57·8	56·9	1·9	5·9	0·0	94	81·0	43·7	0·000	0·0	wP : vP : mP
28	...	30·029	68·3	55·1	13·2	60·3	− 0·3	58·6	57·1	3·2	8·6	0·0	90	110·8	46·8	0·000	0·0	wP : wP, wN : vP
29	Perigee	30·063	69·2	50·6	18·6	59·7	− 0·6	56·3	53·3	6·4	13·0	0·6	80	117·2	40·7	0·000	0·0	mP
30	New	30·067	75·1	47·5	27·6	59·9	− 0·2	57·1	54·7	5·2	14·6	0·0	83	120·9	40·3	0·000	0·0	mP : vP : wP
31	...	29·940	77·1	49·5	27·6	61·5	+ 1·6	58·4	55·8	5·7	18·4	0·0	82	118·5	39·8	0·000	0·0	wP : wP, vN : mP
Means	...	29·758	69·0	53·4	15·6	59·8	− 1·8	56·6	53·9	5·9	13·1	0·9	81·4	119·0	47·2	Sum 3·033	2·3	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 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·758, being 0in·024 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 80°·5 on August 14; the lowest in the month was 44°·2 on August 21; and the range was 36°·3.
The mean of all the highest daily readings in the month was 69°·0, being 3°·8 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 53°·4, being 0°·4 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 15°·6, being 4°·2 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 59°·8, being 1°·8 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	0·8	15·3	SW	SW	2·0	0·0	0·08	278	10 : 10, th.-r	10, sc, th.-r : 9, cu.-s : 10
2	2·2	15·3	SW	WSW : SW	6·0	0·0	0·15	323	10 : 10, slt.-r	8, cu.-s, li.-cl, slt.-r : 10, r
3	7·8	15·2	WSW	WSW : SW	5·0	0·0	0·32	396	v, th.-cl : v, cu, li.-cl	v, li.-cl : 5, ci.-cu, li.-cl, sh.-r : 0
4	3·0	15·2	SW	SSW	2·8	0·0	0·20	380	10 : v, li.-cl	10, oc.-slt.-r : 10, oc.-slt.-r
5	7·0	15·1	SW : WSW	SSW	2·5	0·0	0·12	314	p.-cl : 6, cu.-s, li.-cl	p.-cl : 10, slt.-r
6	0·7	15·1	S : Calm : NNW	Variable	0·2	0·0	0·00	109	10 : 10, hy-r : 10, th.-r	10, th.-r : 10
7	4·1	15·0	SW	SW : SSW	2·2	0·0	0·10	259	10 : 9, th.-cl, so.-ha	v, cu, li.-cl : 10, slt.-r
8	1·8	15·0	SSW	SSW : SW	5·3	0·0	0·31	397	10 : 10, oc.-slt.-r	10 : v : 10, r
9	3·1	14·9	SW : WSW	WSW : SW	4·6	0·0	0·24	386	v, r : 8, cu, li.-cl	10 : p.-cl
10	1·0	14·9	SW : WSW : WNW	NNW	3·5	0·0	0·11	241	10 : 10, r	v, t.-sm, hy.-r : 10, hy.-r, l, t : 10, slt.-r
11	2·2	14·8	NW : WNW	NW : WSW	1·6	0·0	0·10	261	10 : 10 : 5, cu, li.-cl	7, cu, li.-cl : v, shs.-r : v, th.-cl
12	1·1	14·7	SW	SW	5·1	0·0	0·48	388	10, slt.-r : 10	p.-cl : 10, oc.-slt.-r : 10, oc.-r
13	6·6	14·7	SW : NW	NW : WNW	5·0	0·0	0·53	405	10 : 10 : 7, cu, cu.-s, li.-cl	v, li.-cl : 10
14	7·9	14·6	SW	SW	5·8	0·0	1·03	480	10, sh.-r : 10 : 2, ci.-cu, li.-cl	2, li.-cl : 10, w : 10
15	8·3	14·6	SW	SW	7·8	0·0	1·24	545	10 : 10, w : 5, cu.-s, li.-cl, w	v, cu, ci.-cu : v, hy.-r, t : 0
16	0·6	14·5	SW : WSW : W	NNW : WNW	1·9	0·0	0·05	232	p.-cl : 10, r	10, hy.-r, l, t : 10
17	3·2	14·4	WSW : WNW	WSW	2·1	0·0	0·07	289	p.-cl : v, cu, li.-cl	10 : v, li.-cl
18	3·0	14·4	WSW : NW	WNW : WSW	2·7	0·0	0·08	269	p.-cl, d : 10 : v, cu, ci.-cu	10, oc.-hy.-shs : 10 : v, li.-cl
19	0·0	14·3	WSW	WSW	3·4	0·0	0·11	318	10 : 10, th.-r, so.-ha	10, fq.-m.-r : 10, r : v, sh.-r
20	6·8	14·3	WSW : WNW	WNW : W	4·6	0·0	0·50	422	10 : v, cu, li.-cl	v, cu, cu.-s : 8, cu.-s, li.-cl : 0
21	3·3	14·2	W : SW	SSW : WSW : WNW	1·7	0·0	0·06	235	1, li.-cl, d : 4, li.-cl : 8, cu.-s, li.-cl	10 : 10, th.-r : 10
22	3·9	14·1	W : SW	SW : S	0·7	0·0	0·01	153	p.-cl : 10 : v, li.-cl	v, li.-cl : 0
23	0·0	14·1	ENE	ENE : NE : S	4·3	0·0	0·22	235	10 : 10, r	10, r : 10, oc.-th.-r
24	0·0	14·0	SSW : N	NE : ENE	1·3	0·0	0·05	192	10 : 10, r, f	10 : 10, r, l, t : 10
25	0·0	13·9	NE : ENE	ENE	2·7	0·0	0·38	364	10, shs.-r : 10, hy.-r	10 : 10 : 10, r
26	8·0	13·9	E : ESE : SW	SW	0·0	0·0	0·00	203	10 : 6, li.-cl	5, li.-cl : v, li.-cl, l
27	0·0	13·8	SW : N	N : NNW : ESE	0·0	0·0	0·00	139	v : 10, f	10 : r, li.-cl : 0, m
28	0·9	13·8	N : Calm	Calm : Variable	0·0	0·0	0·00	51	p.-cl, f : 10, m, glm : v, li.-cl, h	p.-cl, h : v, h : v
29	6·2	13·7	N : NNW	NNW : N	0·0	0·0	0·00	157	p.-cl : 5, li.-cl, h	2, li.-cl, h : 0 : 0, slt.-f, d
30	6·2	13·7	Calm	SE : N : Calm	0·0	0·0	0·00	50	0, hy.-d : tk.-f : 0, slt.-h	0, m, h : 0, slt.-f, hy.-d
31	4·2	13·6	Calm : NNE	WSW : N	0·0	0·0	0·00	81	0, hy.-d : tk.-f : 0, f, glm	0 : 0, slt.-f, hy.-d
Means	3·4	14·5	...	...	...	...	0·21	276		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 56°·6, being 1°·0 *lower* than
The mean *Temperature of the Dew Point* for the month was 53°·9, being 0°·3 *lower* than
The mean *Degree of Humidity* for the month was 81·4, being 4·6 *greater* than
The mean *Elastic Force of Vapour* for the month was 0^{in}·416, being 0^{in}·005 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4^{grs}·6, being 0^{gr}·1 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 529 grains, being 1 grain *greater* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·231. The maximum daily amount of *Sunshine* was 8·3 hours on August 15.

The highest reading of the *Solar Radiation Thermometer* was 143°·2 on August 14; and the lowest reading of the *Terrestrial Radiation Thermometer* was 34°·1 on August 21.

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

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 3, S. 9, and W. 13. One day was calm.

The *Greatest Pressure of the Wind* in the month was 7·8 lbs. on the square foot on August 15. The mean daily *Horizontal Movement of the Air* for the month was 276 miles; the greatest daily value was 545 miles on August 15; and the least daily value was 50 miles on August 30.

Rain fell on 17 days in the month, amounting to 3^{in}·033, as measured by gauge No. 6 partly sunk below the ground; being 0^{in}·683 *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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.		
Sept. 1	In Equator	29.929	70.3	52.2	18.1	60.8	+ 1.1	57.0	53.8	7.0	14.8	0.6	78	114.8	40.0	0.000	0.0	wP : vP : mP
2	...	29.894	68.9	50.0	18.9	58.1	− 1.6	55.3	52.8	5.3	16.9	0.2	82	128.0	38.2	0.000	0.0	wP
3	...	29.763	56.9	46.9	10.0	53.7	− 5.9	51.6	49.6	4.1	7.0	2.4	86	67.3	43.7	0.166	0.2	wP : vN, vP
4	...	29.878	63.7	44.2	19.5	52.4	− 7.0	49.0	45.5	6.9	16.5	0.2	78	119.0	36.1	0.017	0.8	sP : vP : vP, ssN
5	...	29.909	61.2	41.4	19.8	50.5	− 8.8	47.7	44.8	5.7	14.2	0.0	81	101.0	35.7	0.000	0.0	vP : vP, ssN
6	...	29.919	59.9	40.4	19.5	50.8	− 8.3	48.4	45.9	4.9	10.3	0.4	84	105.2	34.6	0.006	0.0	mP : vP, ssN : mP
7	First Quarter	29.921	60.0	43.2	16.8	51.7	− 7.2	48.3	44.9	6.8	13.5	0.0	78	102.0	37.8	0.000	0.2	wP : vP : vP
8	Greatest Declination S.	29.745	61.2	47.8	13.4	52.7	− 6.0	49.0	45.3	7.4	15.6	1.0	77	124.8	39.1	0.340	0.8	vN : mP : mP
9	...	29.985	61.3	49.4	11.9	54.3	− 4.2	51.6	49.0	5.3	9.1	2.2	82	104.9	44.0	0.025	0.0	mP : vP, vN : wP
10	Apogee	30.206	64.4	46.6	17.8	54.1	− 4.2	50.9	47.8	6.3	14.6	0.6	79	116.5	42.0	0.000	0.0	... : sP : vP
11	...	30.164	66.8	44.1	22.7	53.7	− 4.4	50.8	48.0	5.7	14.6	0.0	81	96.2	38.4	0.000	0.0	wP : vP : wwP
12	...	30.173	65.8	45.2	20.6	55.2	− 2.8	52.3	49.5	5.7	13.0	0.0	82	115.1	40.5	0.000	0.0	... : mP : mP
13	...	30.186	62.3	47.1	15.2	53.9	− 4.0	49.5	45.2	8.7	15.4	2.9	72	111.8	42.0	0.000	0.5	wP : mP : mP
14	...	30.191	64.0	50.5	13.5	55.5	− 2.3	52.6	49.8	5.7	11.0	1.4	82	98.2	45.1	0.000	1.5	wP : mP
15	Full : In Equator	30.190	61.0	51.2	9.8	56.0	− 1.7	54.1	52.3	3.7	7.6	0.8	88	76.9	48.9	0.000	0.0	wP : mP
16	...	30.157	62.0	51.9	10.1	56.4	− 1.1	53.9	51.6	4.8	9.1	1.4	84	103.0	49.2	0.006	0.0	wwP : wP
17	...	30.106	59.8	52.2	7.6	55.9	− 1.4	53.3	50.9	5.0	8.4	1.2	84	78.0	51.8	0.006	0.5	wwP : wP
18	...	29.982	68.2	49.3	18.9	57.7	+ 0.8	55.5	53.5	4.2	11.2	0.6	86	115.8	44.0	0.002	1.5	wwP : wP : mP
19	...	29.927	68.0	49.1	18.9	56.9	+ 0.4	55.6	54.4	2.5	7.9	0.0	92	112.0	43.1	0.000	0.0	mP : wP
20	...	29.912	63.0	52.4	10.6	57.6	+ 1.5	56.6	55.7	1.9	4.8	0.0	94	91.2	46.9	0.000	0.0	wP
21	...	29.826	58.9	53.4	5.5	55.6	− 0.1	54.5	53.5	2.1	3.6	1.0	92	73.5	52.0	0.061	2.0	wP : vP, sN : wP
22	Last Quarter : Greatest Dec. N.	29.707	57.3	48.8	8.5	53.7	− 1.7	52.0	50.3	3.4	6.5	0.4	88	71.0	48.1	0.031	1.5	wP : wP, wN : vP
23	...	29.609	66.3	54.5	11.8	58.0	+ 2.8	56.8	55.7	2.3	5.9	0.0	92	116.2	52.0	0.230	4.5	wwP, wwN : vP, vN
24	...	29.630	62.6	54.6	8.0	57.9	+ 2.8	56.9	56.0	1.9	3.4	0.0	94	79.2	51.1	0.020	1.5	wP
25	...	29.493	59.7	55.6	4.1	57.7	+ 2.7	57.4	57.1	0.6	3.0	0.0	99	77.4	55.2	0.300	6.5	wP : wN
26	Perigee	29.638	56.1	46.4	9.7	53.7	− 1.2	52.4	51.1	2.6	5.4	0.0	91	61.8	40.0	0.038	0.0	wP : mP
27	...	29.998	58.9	41.4	17.5	49.2	− 5.7	46.2	43.0	6.2	14.6	0.7	79	105.0	34.4	0.000	0.0	mP : sP
28	In Equator	30.131	57.7	33.3	24.4	46.7	− 8.1	44.1	41.2	5.5	13.8	0.0	82	111.0	27.1	0.000	2.0	sP
29	New	30.141	58.3	38.0	20.3	48.0	− 6.6	45.1	41.9	6.1	13.8	0.7	80	110.2	30.3	0.000	0.0	sP
30	...	30.262	60.3	43.8	16.5	51.7	− 2.7	48.6	45.5	6.2	13.5	1.0	79	119.0	35.5	0.000	0.0	mP
Means	...	29.952	62.2	47.5	14.7	54.3	− 2.8	51.9	49.5	4.8	10.6	0.7	84.2	100.2	42.2	Sum 1.248	0.8	...
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.952, being 0in.146 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 70°.3 on September 1; the lowest in the month was 33°.3 on September 28; and the range was 37°.0.
The mean of all the highest daily readings in the month was 62°.2, being 5°.1 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 47°.5, being 1°.6 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 14°.7, being 3°.5 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 54°.3, being 2°.8 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	3·1	13·5	NNW : N	N : NE : ENE	0·0	0·0	0·00	144	10 : 10 : 0, slt.-h	0 : 1, li.-cl : 0, hy.-d
2	4·9	13·4	E : NE	E : ENE	...	...	0·00	173	f : f : 1, li.-cl	2, li.-cl : 5, li.-cl : v
3	0·0	13·4	NE : NNE	NNE : N	...	...	...	285	10 : 10 : 10, r	10, c.-r : 10 : 3, li.-cl
4	6·0	13·3	NNW	NNW : NNE	1·1	0·0	0·04	175	p.-cl, d : p.-cl : 4,cu,cu.-s	6, cu, cu.-s, li.-cl : v, slt.-r, h, slt.-f
5	0·2	13·2	SW : NW	NNW	0·6	0·0	0·01	151	0, hy.-d : 0, slt.-f : 6,cu.-s,h	6, cu, th.-cl, t : p.-cl : 4, li.-cl
6	1·3	13·2	NNW	NNW	3·4	0·0	0·09	205	p.-cl, hy.-d : 10 : v, oc.-th.-r	10, shs.-r, hl : 4, li.-cl : 0, d
7	0·1	13·1	SW : WSW	W : WSW : SW	3·8	0·0	0·24	302	p.-cl : 10 : 10	10 : p.-cl : 3, li.-cl, d
8	5·1	13·0	SW : S : NNW	NNW : NW	5·3	0·0	0·61	344	10, hy.-r : 10, c.-r : 3, cu,cu.-s,li.-cl	p.-cl : 10
9	2·8	13·0	NNW	N	8·9	0·0	1·14	482	10 : 10 : 7, cu, th.-cl, oc.-slt.-r	v, fq.-shs : 0
10	5·1	12·9	N : NNW	N : NE : S	1·7	0·0	0·09	229	10 : 10 : v, cu,cu.-s,li.-cl	v, cu.-s, li.-cl : v, slt.-f
11	3·5	12·9	SW	WSW : W : NW	0·1	0·0	0·00	145	v, d, f : 1, li.-cl, h, slt.-f	0 : 0, f
12	4·1	12·8	NNW : NNE	NNE	2·2	0·0	0·07	231	0, f, d : 10 : v, cu,li.-cl,h	5, li.-cl : 3, li.-cl : 0
13	1·2	12·7	N : NNE	NE : NNE	2·9	0·0	0·14	313	10 : 10 : 9,cu,li.-cl	v, th.-cl : 10
14	0·5	12·7	N : NNE	NNE : E : Calm	2·8	0·0	0·05	210	10 : 10	10 : v : 10
15	0·0	12·6	Calm : NNW	NNW : N	1·3	0·0	0·02	157	10, f : 10, slt.-f : 10	10, slt.-r : 10 : 10
16	0·0	12·6	N : NNE	NNE : NE	1·5	0·0	0·05	233	10, slt.-r : 10	10, oc.-th.-r : 10 : 10
17	0·0	12·5	NNE	NE	2·1	0·0	0·15	284	10, slt.-r : 10	10 : 10, oc.-slt.-r
18	2·3	12·4	NNE : ENE	ENE : NE	1·8	0·0	0·05	217	10 : 10 : 10, slt.-r	6, li.-cl : 4, li.-cl : 0, m, d
19	0·7	12·3	NE : NNE : Calm	Variable : Calm	0·0	0·0	0·00	78	0, d : tk.-f : 0, h	0, f, h : p.-cl : 0, f
20	0·0	12·3	N : NE	NNE : NE	0·1	0·0	0·00	152	10, f : 10 : 10	10 : 10
21	0·0	12·2	NNE : NE	ENE	0·2	0·0	0·00	144	10 : 10 : 10, r	10, c.-r : 10,oc.-slt.-r : 10, oc.-th.-r
22	0·0	12·2	ENE	E	0·2	0·0	0·00	149	10 : 10 : 10, th.-r	10, th.-r : 10, th.-r : 10
23	1·4	12·1	E : ESE	ENE : E : ESE	1·2	0·0	0·05	196	10, hy.-r : 10 : 10	p.-cl, slt.-r : v
24	0·0	12·0	E : ENE	ENE	2·0	0·0	0·07	223	10 : 10, f : 10	10, r : 10
25	0·0	11·9	ENE	ENE : N : NNW	2·7	0·0	0·17	273	10, fq.-r : 10	10, fq.-th.-r : 10, fq.-th.-r, f
26	0·0	11·9	N	N	2·3	0·0	0·18	268	10, oc.-r : 10, fq.-th.-r	10, oc.-slt.-r : 10,oc.-slt.-r : 2, li.-cl
27	5·6	11·8	NNW : N	N : NNW	1·1	0·0	0·02	158	0, d : 3, th.-cl	1, li.-cl : 0 : 0, slt.-f, d
28	2·9	11·7	NW : NNW	NNW	1·7	0·0	0·05	182	0, ho.-fr : f : v, li.-cl	10 : v, li.-cl : 0, d
29	4·8	11·7	N : NNW	NNE : N	3·5	0·0	0·21	272	0, ho.-fr : 0	v, li.-cl : 2, li.-cl : 0
30	2·8	11·6	NNW : N	NNE	2·1	0·0	0·09	252	10 : 10 : 2, li.-cl	10 : 10 : 3, li.-cl
Means	1·9	12·6	...	...	...	...	(29 days) 0·12	221		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 51°·9, being 2°·3 *lower* than
The mean *Temperature of the Dew Point* for the month was 49°·5, being 1°·9 *lower* than
The mean *Degree of Humidity* for the month was 84·2, being 3·4 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·355, being 0in·024 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·0, being 0gr·2 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 539 grains, being 6 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 0·155. The maximum daily amount of *Sunshine* was 6·0 hours on September 4.

The highest reading of the *Solar Radiation Thermometer* was 128°·0 on September 2; and the lowest reading of the *Terrestrial Radiation Thermometer* was 27°·1 on September 28.

The mean daily distribution of *Ozone* for the 12 hours ending 9h. was 0·6; 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. 17, E. 7, S. 1, and W. 4. One day was calm.

The *Greatest Pressure of the Wind* in the month was 8·9 lbs. on the square foot on September 9. The mean daily *Horizontal Movement of the Air* for the month was 221 miles; the greatest daily value was 482 miles on September 9; and the least daily value was 78 miles on September 19.

Rain fell on 13 days in the month, amounting to 1in·248, as measured by gauge No. 6 partly sunk below the ground; being 1in·003 *less* than the average fall for the 50 years, 1841-1890.

MONTH and DAY, 1894.	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.		
Oct. 1	...	30·300	60·1	42·5	17·6	51·2	− 2·9	48·3	45·3	5·9	12·4	0·2	81	114·5	32·9	0·000	0·5	mP : mP : vP
2	...	30·238	62·0	48·4	13·6	52·6	− 1·2	48·9	45·2	7·4	12·5	3·6	76	123·3	43·0	0·000	1·5	mP : mP : vP
3	...	30·085	58·7	48·2	10·5	53·1	− 0·4	49·3	45·5	7·6	11·0	5·0	75	94·5	42·9	0·000	0·5	wP : mP
4	...	29·933	59·2	49·0	10·2	53·4	+ 0·2	51·1	48·8	4·6	8·9	2·4	84	94·2	47·9	0·003	1·5	mP
5	Greatest Declination S.	29·849	59·0	50·9	8·1	53·6	+ 0·6	52·0	50·4	3·2	8·4	1·6	89	84·2	47·9	0·021	0·0	wP : vP
6	First Quarter	29·772	57·5	50·0	7·5	53·7	+ 1·0	52·5	51·3	2·4	5·3	1·0	92	82·7	49·5	0·095	0·0	vP, wN : mP
7	...	29·819	57·3	47·2	10·1	53·7	+ 1·2	52·5	51·3	2·4	6·8	0·0	92	67·4	44·0	0·000	0·0	wP
8	Apogee	29·918	57·0	44·6	12·4	49·7	− 2·4	49·4	49·1	0·6	3·6	0·0	98	74·0	39·2	0·004	0·0	vP : vP, wN
9	...	30·011	51·2	48·1	3·1	49·9	− 1·8	49·5	49·1	0·8	1·8	0·0	97	56·2	48·1	0·006	0·5	wP : vP, wN : vP
10	...	30·007	59·8	49·3	10·5	55·0	+ 3·7	54·5	54·0	1·0	4·9	0·2	96	70·2	48·7	0·301	1·5	wP : mP
11	...	30·065	62·0	54·2	7·8	58·4	+ 7·4	57·7	57·1	1·3	4·2	0·0	96	71·2	54·0	0·029	0·0	wP : mP
12	...	30·135	60·9	47·7	13·2	54·1	+ 3·5	53·0	51·9	2·2	7·4	0·0	92	99·2	42·8	0·000	0·0	wP : vP, wN : vP
13	In Equator	30·009	61·9	48·5	13·4	55·1	+ 4·8	53·6	52·1	3·0	8·4	0·0	90	89·1	46·9	0·016	0·0	vP, wN
14	Full	29·845	56·0	42·0	14·0	50·0	− 0·1	47·1	44·0	6·0	11·6	1·4	81	101·1	38·0	0·033	0·0	wP, wN : vP, sN
15	...	29·918	54·1	38·3	15·8	44·0	− 5·9	41·7	39·0	5·0	10·7	2·3	82	104·0	32·8	0·016	0·0	mP : vP, sN
16	...	29·973	51·4	37·7	13·7	44·0	− 5·8	42·0	39·6	4·4	11·1	1·4	84	76·9	30·0	0·000	0·0	mP : sP, mN
17	...	29·911	50·9	30·5	20·4	41·5	− 8·1	40·1	38·3	3·2	8·6	0·6	89	84·2	27·5	0·000	0·0	sP : vP : vP, wN
18	...	29·612	45·7	38·9	6·8	43·3	− 6·2	41·5	39·4	3·9	8·1	1·3	86	50·9	31·7	0·000	0·0	mP : sP, wN : vP, wN
19	Greatest Declination N.	29·474	49·9	41·1	8·8	45·7	− 3·6	43·6	41·2	4·5	8·8	1·3	85	75·0	33·2	0·000	0·0	mP
20	...	29·342	48·2	40·0	8·2	44·3	− 4·7	43·5	42·6	1·7	4·6	0·4	94	59·4	33·8	0·139	0·5	mP : vP, wN
21	Last Quarter	29·397	52·0	38·7	13·3	44·7	− 4·1	42·8	40·6	4·1	9·0	0·0	86	90·2	35·0	0·175	1·7	vP, ssN : wP : mP
22	Perigee	29·657	48·8	35·0	13·8	41·8	− 6·7	39·7	37·1	4·7	9·2	0·5	84	74·2	29·2	0·000	0·8	vP
23	...	29·773	55·7	38·8	16·9	46·6	− 1·6	44·7	42·6	4·0	10·3	0·0	87	81·0	32·3	0·003	1·0	wP : mP : wP
24	...	29·206	60·1	51·5	8·6	55·0	+ 7·1	52·8	50·7	4·3	7·4	1·7	86	95·2	47·3	0·395	4·5	wwP : vP, vN : wP
25	...	29·002	58·3	51·4	6·9	54·2	+ 6·6	49·9	45·7	8·5	14·2	5·2	72	104·0	45·5	0·031	4·5	vP, sN : mP, sN
26	In Equator	29·245	61·2	50·2	11·0	54·3	+ 6·9	51·8	49·3	5·0	10·6	1·2	83	105·0	44·8	0·433	5·2	wP : mP, vN : vP, ssN
27	...	29·143	57·3	49·6	7·7	52·9	+ 5·6	50·8	48·7	4·2	6·8	1·4	86	86·2	44·3	0·316	3·8	wP, wN : ssP, ssN : mP
28	New	29·463	55·9	47·1	8·8	51·0	+ 3·8	48·9	46·7	4·3	10·0	0·8	85	90·8	40·2	0·082	2·0	wP, ssN : mP, mN : sP
29	...	29·479	57·0	45·7	11·3	50·9	+ 3·9	48·2	45·4	5·5	9·4	1·4	82	100·3	41·3	0·454	6·7	vP, vN : mP
30	...	29·643	52·0	47·8	4·2	49·8	+ 2·8	48·9	47·9	1·9	6·9	0·2	94	57·3	43·0	1·193	2·2	wP, wN : vP, vN
31	...	29·863	60·9	49·0	11·9	54·9	+ 8·1	53·3	51·7	3·2	8·4	0·0	89	83·1	48·2	0·241	6·0	wP
Means	...	29·745	56·2	45·2	11·0	50·4	+ 0·4	48·5	46·5	3·9	8·4	1·1	86·9	85·1	40·8	Sum 3·986	1·4	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29^in·745, being 0^in·029 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 62°·0 on October 2 and 11; the lowest in the month was 30°·5 on October 17; and the range was 31°·5.
The mean of all the highest daily readings in the month was 56°·2, being 1°·5 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 45°·2, being 1°·9 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 11°·0, being 3°·4 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 50°·4, being 0°·4 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	3·4	11·6	N : NE	NE	2·2	0·0	0·07	207	v, d : 10	v,li.-cl,ci.-cu : v : 10
2	5·7	11·5	NE	NE	3·3	0·0	0·36	298	10 : 10 : v, ci.-cu, li.-cl	2, li.-cl : 3, li.-cl : p.-cl
3	1·2	11·4	NE	NE : NNE	3·1	0·0	0·18	280	10 : 10 : 9,cu.-s,li.-cl	10 : 10
4	0·7	11·4	NNE : N : NNW	N : NNE	4·5	0·0	0·57	353	10 : 10 : 10, th.-r	v, li.-cl : 10,oc.-slt.-r : 10, oc.-slt.-r
5	0·0	11·3	NNE	NE : NNE : N	1·7	0·0	0·11	251	10 : 10	10, slt.-r : 10, oc.-slt.-r
6	0·1	11·2	N : NNE	ENE	1·1	0·0	0·05	201	10, shs.-r : 10 : 10, slt.-r	10 : 10,oc.-slt.-r : 10
7	0·0	11·2	Calm : E	Calm	0·0	0·0	0·00	64	10 : 10, f : 10	10 : v : 0, slt.-f
8	0·1	11·1	Calm	Calm : N	0·0	0·0	0·00	52	tk.-f : tk.-f : f, glm	3, li.-cl, f : tk.-f
9	0·0	11·0	Calm	Calm : SW	0·0	0·0	0·00	45	10, f : tk.-f : 10, f	10, slt.-f, glm : 10, f : 10
10	0·0	11·0	SSE : SSW	SW : WSW	1·0	0·0	0·02	208	10 : 10, slt.-r : 10, slt.-r	10, fq.-slt.-r : 10, c.-r
11	0·0	10·9	WSW : NNW	N : E	0·0	0·0	0·00	129	10, oc.-r : 10, glm, f	10, slt.-f : 10
12	1·6	10·9	E : ENE	ENE : ESE : Calm	0·0	0·0	0·00	90	10 : 10	4, li.-cl : 2, li.-cl : 10, tk.-f
13	0·0	10·8	Calm : SW	NW : WSW	0·5	0·0	0·00	109	tk.-f : tk.-f : 0	5, li.-cl : 10, slt.-r
14	3·4	10·7	NW : N	NNW	5·5	0·0	0·50	358	10, oc.-r : 10	v, th.-cl, w : v
15	2·8	10·7	NNW	N : NNW	3·5	0·0	0·35	315	p.-cl : 4, cu, li.-cl	7, cu, li.-cl, shs.-r : 7, li.-cl
16	0·7	10·6	NNW	NNE : N : NNW	2·6	0·0	0·12	228	10 : 10, li.-shs : 10	7, ci.-cu, li.-cl : 0, slt.-f
17	0·4	10·5	NNW : SW	Variable : Calm	0·2	0·0	0·00	90	0, ho.-fr : 0, f : 0	p.-cl, glm : 10
18	0·0	10·5	Variable	N : NNW	0·0	0·0	0·00	95	10, f : 10, f, glm	10, f, glm : 10, slt.-f
19	0·0	10·4	NNW : N	NE : NNE	0·8	0·0	0·04	182	10 : 10 : 10, slt.-r	10 : 10
20	0·0	10·3	NNE	NE : Calm	0·5	0·0	0·01	153	10, f : 10 : 10, slt.-r	10, oc.-slt.-r : 10, r
21	0·7	10·3	SSW : SW	W : NNW : NNE	6·7	0·0	0·50	337	10, hy.-r : 10 : v, cu.-s, th.-cl	p.-cl : p.-cl : 0
22	0·0	10·2	NNE : NE	NE	2·2	0·0	0·12	253	v : 10, slt.-f : 10	10 : p.-cl : 0
23	0·0	10·2	NE : E	ESE : SSE	2·0	0·0	0·13	243	v, li.-cl : 6,cu.-s,li.-cl : 10	10 : v
24	0·5	10·1	SSE : SE	SW	22·5	0·0	1·52	522	10, slt.-r : 10 : 10, hy.-r	10, fq.-hy.-shs : v, st.-w, slt.-r, l
25	4·2	10·0	SW	SW	17·5	0·0	2·25	723	v, w : v, oc.-shs, w	v, shs.-r, w : 0, l, w : 0, w
26	3·6	10·0	WSW : SW	SSW : S	12·0	0·0	0·89	460	v, w : 4, li.-cl	10, fq.-r : 10, c.-r
27	0·3	9·9	SSW : SW	SW	12·8	0·0	1·00	508	v, shs.-r : v, shs.-r : 10,sc,hy.-r,w	10, fq.-r : v
28	2·2	9·8	SW : WSW	SW : SSW : SSE	4·5	0·0	0·18	316	p.-cl, shs.-r : 8, th.-cl : 10	v, slt.-r : 0 : vv
29	5·5	9·8	SSW : SW	SW	7·2	0·0	0·86	500	vv, hy.-r, sqs : 0	v : 10, slt.-r : v
30	0·0	9·7	SW	SW : ESE	2·1	0·0	0·11	224	10 : 10, r	10, c.-r : 10, c.-r
31	0·2	9·7	E : S	S	2·5	0·0	0·13	261	10, c.-r : 10, slt.-r : 10, oc.-slt.-r	p.-cl : p.-cl : 9, li.-cl
Means	1·2	10·6	...	...	...	...	0·32	260		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was $48^{\circ}\cdot5$, being $0^{\circ}\cdot5$ *higher* than
The mean *Temperature of the Dew Point* for the month was $46^{\circ}\cdot5$, being $0^{\circ}\cdot6$ *higher* than
The mean *Degree of Humidity* for the month was 86·9, being 1·3 *greater* than
The mean *Elastic Force of Vapour* for the month was $0^{\text{in}}\cdot317$, being $0^{\text{in}}\cdot008$ *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was $3^{\text{grs}}\cdot6$, being $0^{\text{gr}}\cdot1$ *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 539 grains, being *the same as*
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·8.
The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·113. The maximum daily amount of *Sunshine* was 5·7 hours on October 2.
The highest reading of the *Solar Radiation Thermometer* was $123^{\circ}\cdot3$ on October 2; and the lowest reading of the *Terrestrial Radiation Thermometer* was $27^{\circ}\cdot5$ on October 17.
The mean daily distribution of *Ozone* for the 12 hours ending 9^{h} was 1·1; for the 6 hours ending 15^{h} was 0·0; and for the 6 hours ending 21^{h} was 0·3.
The *Proportions of Wind* referred to the cardinal points were N. 11, E. 6, S. 7, and W. 6. One day was calm.
The *Greatest Pressure of the Wind* in the month was 22·5 lbs. on the square foot on October 24. The mean daily *Horizontal Movement of the Air* for the month was 260 miles; the greatest daily value was 723 miles on October 25; and the least daily value was 45 miles on October 9.
Rain fell on 18 days in the month, amounting to $3^{\text{in}}\cdot986$, as measured by gauge No. 6 partly sunk below the ground; being $1^{\text{in}}\cdot175$ *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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.		
Nov. 1	...	29·820	64·9	54·2	10·7	57·4	+10·7	53·5	49·9	7·5	14·2	4·2	76	108·0	49·1	0·006	4·5	wP : mP
2	Greatest Declination S.	29·681	59·9	54·4	5·5	57·2	+10·7	55·7	54·3	2·9	5·5	1·7	90	69·2	49·3	0·091	5·3	wwP : wP
3	...	29·628	62·2	52·9	9·3	57·0	+10·7	55·2	53·6	3·4	7·0	1·3	88	103·0	48·7	0·099	5·2	wwP : vP, vN
4	Apogee	29·746	57·8	50·2	7·6	53·9	+ 7·8	51·1	48·4	5·5	11·2	2·6	81	94·2	44·2	0·022	7·2	vP, wN : mP
5	First Quarter	29·796	59·5	48·0	11·5	54·5	+ 8·6	52·7	50·9	3·6	5·9	1·3	87	83·7	42·0	0·021	3·8	wP : mP, mN
6	...	29·974	57·0	40·5	16·5	47·3	+ 1·8	45·5	43·5	3·8	11·2	0·0	88	87·2	32·3	0·003	1·2	mP
7	...	29·611	57·7	43·1	14·6	52·1	+ 7·0	50·2	48·3	3·8	8·9	0·0	87	76·0	38·3	0·392	4·8	wP : wP : vP, vN
8	...	29·460	52·3	42·0	10·3	46·7	+ 2·1	44·0	40·9	5·8	12·0	1·5	81	84·0	40·1	0·042	3·0	wP : mP : sP
9	In Equator	29·507	53·5	41·5	12·0	47·6	+ 3·6	46·3	44·9	2·7	5·7	0·8	91	64·3	39·1	0·042	0·0	mP : wP
10	...	29·367	57·9	44·9	13·0	51·3	+ 7·7	49·6	47·9	3·4	11·4	0·4	88	93·0	42·0	0·133	0·0	wP : mP : vP, ssN
11	...	29·260	50·7	42·0	8·7	45·7	+ 2·5	43·2	40·3	5·4	11·5	1·3	82	78·3	39·0	0·177	4·5	wP : mP : vP, vN
12	...	28·896	55·5	42·7	12·8	49·4	+ 6·5	48·2	46·9	2·5	6·2	0·6	92	66·1	41·7	0·912	9·5	wP, wN : ssP, ssN
13	Full	29·454	50·0	41·8	8·2	45·5	+ 2·7	42·4	38·8	6·7	13·4	3·3	78	98·2	38·3	0·023	2·0	vP, vN : mP : vP, vN
14	...	29·047	53·1	44·4	8·7	49·7	+ 7·1	47·9	46·0	3·7	6·7	1·6	88	73·0	41·5	0·348	13·0	wP, wN : vP, vN
15	...	29·235	49·7	42·1	7·6	44·9	+ 2·4	43·6	42·1	2·8	5·9	0·0	90	72·8	38·5	0·498	4·0	vP, vN : mP
16	Greatest Dec. N.: Perigee	29·733	53·8	41·9	11·9	46·2	+ 3·8	44·3	42·1	4·1	8·8	2·2	87	93·0	37·8	0·072	0·8	vP, vN
17	...	29·970	54·2	40·4	13·8	46·7	+ 4·4	45·5	44·2	2·5	8·2	0·0	92	88·1	37·8	0·000	2·2	wP : mP
18	...	29·975	54·0	40·7	13·3	46·9	+ 4·7	45·6	44·2	2·7	8·8	0·0	91	105·0	34·9	0·008	0·0	wP : mP
19	...	30·088	54·3	37·1	17·2	45·3	+ 3·1	44·7	44·0	1·3	5·0	0·0	96	89·7	33·3	0·005*	0·5	wP : mP
20	Last Quarter	30·065	56·0	42·8	13·2	48·9	+ 6·8	47·6	46·2	2·7	6·6	1·0	91	97·2	38·8	0·107	1·5	wP : mP : vP, wN
21	...	30·243	47·4	35·1	12·3	41·8	− 0·3	40·7	39·3	2·5	8·4	0·2	92	57·0	31·5	0·000	0·0	vP
22	In Equator	30·192	50·9	34·6	16·3	41·8	− 0·4	40·7	39·3	2·5	6·7	0·3	92	65·1	30·7	0·000	0·0	vP : vP : sP
23	...	30·138	44·8	31·1	13·7	38·9	− 3·2	38·3	37·6	1·3	5·3	0·0	95	62·3	31·1	0·000	0·0	vP
24	...	30·152	50·4	35·4	15·0	42·1	0·0	40·5	38·5	3·6	9·7	0·2	88	81·8	30·9	0·000	4·0	mP
25	...	30·171	46·5	37·6	8·9	43·1	+ 1·1	41·8	40·2	2·9	6·6	1·4	90	69·0	34·8	0·000	0·0	mP
26	...	30·155	40·5	37·8	2·7	39·5	− 2·4	38·0	36·1	3·4	4·8	2·1	88	46·7	35·6	0·000	0·0	mP
27	New	30·174	42·0	39·1	2·9	41·2	− 0·4	39·2	36·7	4·5	5·8	3·0	84	45·0	38·5	0·000	0·0	mP
28	...	30·201	42·3	34·7	7·6	41·2	− 0·1	39·1	36·5	4·7	5·9	3·0	84	46·2	32·2	0·000	0·0	sP
29	Greatest Declination S.	30·124	47·8	33·3	14·5	42·5	+ 1·5	41·2	39·6	2·9	6·9	0·8	90	51·1	30·3	0·000	3·0	sP : vP : mP
30	...	30·284	44·4	35·0	9·4	40·7	0·0	39·4	37·8	2·9	7·5	0·9	90	57·6	30·7	0·000	0·0	sP
Means	...	29·805	52·4	41·4	11·0	46·9	+ 3·7	45·2	43·3	3·6	8·1	1·2	87·9	76·9	37·8	Sum 3·001	2·7	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

*Rainfall. (Column 16.) The amount entered on November 19 was derived from moisture deposited during fog.

The mean reading of the *Barometer* for the month was 29in·805, being 0in·061 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 64°·9 on November 1; the lowest in the month was 31°·1 on November 23; and the range was 33°·8.
The mean of all the highest daily readings in the month was 52°·4, being 3°·6 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 41°·4, being 3°·8 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 11°·0, being 0°·3 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 46°·9, being 3°·7 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	2·2	9·6	SSE : S	SSE : S	4·1	0·0	0·50	379	v : 10, r : 8, th.-cl, so.-ha	5, li.-cl : v, sh.-r
2	0·0	9·5	S : SSW	SSW : S	4·3	0·0	0·40	363	10, r : 10	10 : 10
3	1·7	9·5	S : SSE	S : SSW	4·3	0·0	0·22	309	10 : 7, ci.-cu, li.-cl	9, oc.-r : p.-cl : v
4	6·7	9·4	SSW : SW	SW : S	2·9	0·0	0·29	370	v, sh.-r : 4, cu.-s, li.-cl	v : 10, th.-cl
5	0·2	9·4	S	SSW : SW : WSW	4·6	0·0	0·35	397	v, li.-cl : 10	10, r : 3, li.-cl : 0
6	6·1	9·3	SW : SSW	SW : S	0·1	0·0	0·00	194	0, d : 0	2, li.-cl : 0 : 0
7	0·3	9·2	S	S : SW	6·2	0·0	0·46	395	0 : 10, shs.-r : 10	10, slt.-r : 10, hy.-r
8	5·4	9·2	SW : WSW	WSW : SW	6·1	0·0	0·69	451	v, r : 2, li.-cl : v, li.-cl	2, li.-cl : 2, li.-cl, lu.-ha
9	0·0	9·1	SW : SSW : S	S : SW	2·9	0·0	0·14	281	10 : 10	10 : 10, sc, hy.-sh
10	4·1	9·1	SW : WSW	SW	2·3	0·0	0·15	307	v, sh.-r : 5, ci.-cu, li.-cl	2, li.-cl : v, l, t : 0
11	4·2	9·0	SW	SW : S : SE	7·3	0·0	0·38	390	p.-cl : 1, li.-cl	2, li.-cl : 10, r : 10, c.-r
12	0·0	9·0	SW : S : ESE	SSE : NW	16·5	0·0	0·82	399	10, w, r : 10, c.-r	10, c.-r : 10, hy.-r, l, t : 10, st.-w
13	5·6	8·9	WSW	SW : S	12·0	0·0	1·14	538	10, w, sh.-r : v, cu, li.-cl	3, cu, li.-cl : li.-cl, lu.-ha : 10, w, oc.-r
14	0·0	8·9	S	S : SW	29·5	0·0	2·26	743	10, g, oc.-r : 10, g, c.-r	10, sc, st.-w, c.-r : 10
15	2·1	8·8	S : NE : NW	SSW : S	1·9	0·0	0·09	250	10 : 10, r, f : 10, r	v : 0 : 1, li.-cl
16	3·6	8·8	SSE : S	S	2·3	0·0	0·10	269	v, sh.-r : 3, li.-cl : v, shs.-r	v, oc.-shs : v, oc.-r
17	4·9	8·7	SSE : S	SSE : ESE : E	2·0	0·0	0·10	239	p.-cl : 7, ci.-cu, li.-cl	2, li.-cl : 0 : 10
18	5·5	8·7	E : SE : S	S : SSE : SE	1·2	0·0	0·02	184	10, slt.-r : p.-cl : 0	0 : 0, d
19	3·1	8·6	SSE : S	S : SSW : SW	1·0	0·0	0·03	193	0, hy.-d : 0, f	v, li.-cl : 0, d
20	2·1	8·6	S : SSW	SSW : NW	3·5	0·0	0·26	378	0, d : 4, ci.-cu, li.-cl	7, cu, cu.-s, slt.-r : 10, r : 10, th.-r
21	0·2	8·5	NW : SW	SSW : SSE	0·2	0·0	0·00	172	p.-cl, d : f	4, li.-cl : 4, li.-cl : 0, slt.-m
22	0·0	8·5	SSE	SSW : S : Calm	0·6	0·0	0·00	166	v, ho.-fr : 8, ci -cu	8, li.-cl : 0, slt.-f
23	0·0	8·4	Variable : Calm	ENE : NE	0·7	0·0	0·01	141	v, f : tk.-f	v, li.-cl, so.-ha : 0
24	4·7	8·4	NE : ENE	ENE	3·1	0·0	0·14	275	0, ho.-fr : 4, li.-cl	2, li.-cl : 0 : v
25	2·3	8·3	ESE : E	ENE : NE	2·9	0·0	0·11	265	10 : 0 : 6, li.-cl	2, li.-cl, h : 10
26	0·0	8·3	ENE : NE	NE	2·7	0·0	0·32	393	10 : 10	10 : 10
27	0·0	8·2	NNE : NE	NE : NNE	2·4	0·0	0·21	335	10 : 10	10 : 10
28	0·0	8·2	NNE : N	N	1·0	0·0	0·04	165	10 : 10	10 : 10 : p.-cl
29	0·0	8·2	N : SW	NW : NNW	1·1	0·0	0·05	169	10, f : 10, f	10 : 10, oc.-slt.-r : v
30	0·2	8·1	NNW : N	NNW : N	1·6	0·0	0·09	224	0, ho.-fr : 4, th.-cl	0 : v : 10
Means	2·2	8·8	...	...	...	...	0·31	311		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was $45^{\circ}{\cdot}2$, being $3^{\circ}{\cdot}6$ *higher* than
The mean *Temperature of the Dew Point* for the month was $43^{\circ}{\cdot}3$, being $3^{\circ}{\cdot}6$ *higher* than
The mean *Degree of Humidity* for the month was 87·9, being 0·4 *greater* than
The mean *Elastic Force of Vapour* for the month was $0^{in}{\cdot}280$, being $0^{in}{\cdot}036$ *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was $3^{grs}{\cdot}2$, being $0^{gr}{\cdot}4$ *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 545 grains, being 3 grains *less* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·247. The maximum daily amount of *Sunshine* was 6·7 hours on November 4.

The highest reading of the *Solar Radiation Thermometer* was $108^{\circ}{\cdot}0$ on November 1; and the lowest reading of the *Terrestrial Radiation Thermometer* was $30^{\circ}{\cdot}3$ on November 29.

The mean daily distribution of *Ozone* for the 12 hours ending $9^{h.}$ was 1·8; for the 6 hours ending $15^{h.}$ was 0·7; and for the 6 hours ending $21^{h.}$ was 0·2.

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

The *Greatest Pressure of the Wind* in the month was 29·5 lbs. on the square foot on November 14. The mean daily *Horizontal Movement of the Air* for the month was 311 miles; the greatest daily value was 743 miles on November 14; and the least daily value was 141 miles on November 23.

Rain fell on 17 days in the month, amounting to $3^{in}{\cdot}001$, as measured by gauge No. 6 partly sunk below the ground; being $0^{in}{\cdot}735$ *greater* than the average fall for the 50 years, 1841-1890.

MONTH and DAY, 1894.	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.		
Dec. 1	...	30·327	45·0	31·5	13·5	36·8	− 3·8	36·1	35·1	1·7	4·4	0·0	94	46·0	28·9	0·000	0·0	sP : vP
2	Apogee	30·218	43·8	31·2	12·6	37·7	− 2·9	36·9	35·8	1·9	5·1	0·0	93	46·0	30·0	0·000	0·5	vP : mP
3	...	29·877	47·9	34·8	13·1	42·3	+ 1·5	40·4	38·1	4·2	8·2	0·5	86	83·2	33·0	0·000	1·5	mP
4	...	29·584	38·1	30·3	7·8	34·8	− 6·3	34·5	34·1	0·7	3·2	0·0	98	53·0	30·3	0·000	0·0	mP : sP : vP, wN
5	First Quarter	29·691	41·9	37·9	4·0	40·3	− 1·0	39·5	38·5	1·8	2·9	0·5	94	43·3	37·2	0·000	1·0	vP : sP : vP
6	In Equator	29·835	40·6	31·4	9·2	37·8	− 3·5	36·6	35·0	2·8	7·1	0·0	90	42·3	31·4	0·000	0·0	vP : sP
7	...	29·679	48·6	35·4	13·2	44·1	+ 3·1	43·4	42·6	1·5	3·8	0·2	94	61·9	31·6	0·159	0·0	vP, sN : vP, vN
8	...	29·744	47·3	37·1	10·2	43·4	+ 2·8	42·3	41·0	2·4	5·7	0·7	91	57·0	33·0	0·008	0·0	mP, mN : sP
9	...	29·945	43·5	31·9	11·6	38·6	− 1·7	38·3	37·9	0·7	2·6	0·0	98	47·0	30·3	0·000	1·5	sP
10	...	29·946	47·3	43·2	4·1	44·6	+ 4·7	42·9	40·9	3·7	6·3	2·4	88	55·7	40·1	0·000	4·5	mP
11	...	29·958	48·3	39·4	8·9	44·6	+ 4·8	42·5	40·0	4·6	7·3	2·6	84	69·2	35·4	0·000	0·0	wP : mP : mP
12	Full	29·936	50·8	42·2	8·6	46·1	+ 6·2	45·0	43·8	2·3	6·3	0·7	92	56·7	39·5	0·079	3·2	wP, vN : mP : mP
13	Greatest Declination N.	30·008	50·7	43·2	7·5	48·4	+ 8·3	46·6	44·7	3·7	6·5	0·7	87	58·0	40·3	0·000	3·8	wP
14	Perigee	29·903	52·9	47·9	5·0	50·3	+10·1	49·8	49·3	1·0	2·6	0·0	96	52·9	47·3	0·892	0·0	wwP : vP, vN
15	...	29·861	48·2	39·9	8·3	44·6	+ 4·3	42·2	39·4	5·2	9·7	1·0	82	68·2	36·1	0·000	0·5	vP, sN : sP
16	...	29·934	49·7	38·3	11·4	43·9	+ 3·7	42·2	40·2	3·7	7·8	1·5	86	51·0	36·0	0·169	1·5	vP, vN : wP : mP
17	...	29·913	51·1	37·1	14·0	44·3	+ 4·3	43·1	41·7	2·6	5·1	1·1	91	52·5	33·9	0·021	0·0	mP : wP : wP
18	...	29·435	51·7	41·0	10·7	47·6	+ 7·9	45·2	42·6	5·0	10·1	2·0	84	54·2	38·0	0·151	0·0	wP : vP, vN : mP
19	Last Quarter : In Equator	29·379	45·2	40·1	5·1	42·8	+ 3·5	40·8	38·4	4·4	6·2	2·9	84	53·8	36·9	0·041	0·0	mP : vP, vN : vP
20	...	29·812	43·4	38·7	4·7	41·9	+ 2·9	38·9	35·2	6·7	9·7	4·0	78	55·0	35·0	0·000	0·0	mP : sP : sP
21	...	29·891	51·2	31·8	19·4	41·7	+ 2·9	40·6	39·2	2·5	6·0	0·8	92	51·2	29·2	0·064	2·0	sP : vP, vN : vP
22	...	29·424	51·6	40·1	11·5	46·9	+ 8·3	42·6	37·8	9·1	14·5	2·7	71	64·2	35·5	0·152	6·0	vP, mN : sP
23	...	30·015	46·2	36·4	9·8	42·1	+ 3·7	39·8	36·9	5·2	8·1	1·5	83	66·3	32·5	0·038	0·0	sP : sP : vP, wN
24	...	29·990	50·0	44·2	5·8	47·9	+ 9·6	47·3	46·6	1·3	2·5	0·8	96	55·0	41·7	0·029	0·0	wP
25	...	30·297	49·6	45·5	4·1	47·5	+ 9·2	46·6	45·6	1·9	3·8	0·2	94	49·8	43·3	0·000	0·0	wP : mP : vP, wN
26	Greatest Declination S.	30·354	47·4	43·3	4·1	46·0	+ 7·6	44·5	42·8	3·2	5·2	0·8	90	48·0	43·0	0·059	1·5	mP : vP : vP, wN
27	New	30·421	43·3	36·0	7·3	40·4	+ 2·0	38·2	35·4	5·0	8·4	1·5	83	70·0	32·0	0·000	4·5	sP
28	...	30·144	45·0	31·6	13·4	38·0	− 0·5	36·7	34·9	3·1	7·5	0·0	89	66·2	29·3	0·010	1·0	sP : sP : vP, wN
29	...	29·263	46·3	36·0	10·3	40·8	+ 2·2	37·7	33·7	7·1	11·4	2·2	76	65·7	34·0	0·081	3·0	vP, vN
30	Apogee	29·206	37·1	31·7	5·4	34·5	− 4·1	31·9	27·6	6·9	10·3	3·0	75	40·4	28·6	0·000	0·0	sP
31	...	29·478	35·9	28·2	7·7	32·4	− 6·2	30·6	26·8	5·6	9·0	0·5	79	51·0	26·0	0·000	0·0	sP
Means	...	29·854	46·4	37·3	9·1	42·4	+ 2·7	40·8	38·8	3·6	6·7	1·1	87·7	56·0	34·8	Sum 1·953	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·854, being 0in·063 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 52°·9 on December 14; the lowest in the month was 28°·2 on December 31; and the range was 24°·7.
The mean of all the highest daily readings in the month was 46°·4, being 2°·4 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 37°·3, being 2°·5 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 9°·1, being 0°·1 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 42°·4, being 2°·7 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1894.	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	0·2	8·1	NNW : Calm	Variable : Calm	0·0	0·0	0·00	80	0, ho.-fr : 0, ho.-fr : 0, slt.-f	2, li.-cl, f : tk.-f, ho.-fr
2	0·0	8·1	NE : Calm	ENE : N	2·4	0·0	0·07	142	tk.-f : 10, slt.-f	10, slt.-f : 10, slt.-f
3	4·3	8·0	ENE	NE	2·5	0·0	0·22	248	10 : 10 : 2, li.-cl	1, li.-cl : v, th.-cl : 0
4	0·0	8·0	NE : Calm	ENE : NE : NNE	0·0	0·0	0·00	94	f : tk.-f : f	p.-cl, slt.-f : 10, slt.-r
5	0·0	8·0	NNE : N : NNW	NNW : SW	0·0	0·0	0·00	102	10 : 10, glm, slt.-f	10, th.-r : 10, oc.-slt.-r, slt.-f
6	0·0	8·0	SW : SSW	SW : SSW : S	0·2	0·0	0·00	124	10, f : tk.-f : 10, f	10, f : 10, slt.-f : 2, th.-cl, lu.-ha
7	0·0	7·9	SE : S	SSW	1·2	0·0	0·07	234	p.-cl : v, sh.-r : v, li.-cl, so.-ha	10, th.-r : v, lu.-co : 10, r
8	0·1	7·9	SW : WNW : NNW	N : NNW	1·0	0·0	0·05	206	10 : 10, shs.-r	v, cu.-s, li.-cl : 0, slt.-f : 0, slt.-f
9	0·0	7·9	Variable : Calm	ESE : SE : SSE	1·5	0·0	0·03	125	tk.-f : tk.-f	p.-cl : 10, th.-cl, li.-sc, lu.-ha
10	0·0	7·9	S : SSE	S : SSE	1·7	0·0	0·10	228	10 : 10	10 : 10
11	0·5	7·8	SSE	SSE	1·2	0·0	0·18	252	p.-cl : 10 : p.-cl	v, th.-cl : v, th.-cl, lu.-ha
12	0·0	7·8	S : SSW : WSW	WSW : SSW	1·9	0·0	0·10	287	10, slt.-r : 10 : p.-cl	8, th.-cl : 4, th.-cl : 0
13	0·0	7·8	SSW	SSW	4·1	0·0	0·57	442	2, li.-cl : 10	10 : 10
14	0·0	7·8	SSW : SW	Variable	2·4	0·0	0·20	245	10 : 10, th.-r	10, c.-r, f, glm : 10, c.-r, f
15	3·9	7·8	WSW : W	WNW : WSW	13·8	0·0	1·15	510	10 : v, li.-sc : 0, w	1, li.-cl : v, li.-cl : v, li.-cl
16	0·0	7·8	SW : WSW : W	NNW	5·8	0·0	0·62	368	10, hy.-r : 10 : 10, oc.-slt.-r	10 : 4, th.-cl
17	0·0	7·7	S	SSW	2·1	0·0	0·35	294	10, slt.-r : 10, fq.-th.-r	10, oc.-slt.-r : 10, oc.-slt.-r : 10
18	0·5	7·7	SSW	WSW : SW	10·2	0·0	1·51	603*	10, oc.-shs : 10, r	3, cu, li.-cl : 0 : 0, l
19	0·9	7·7	SW : WSW	W : WNW : NW	11·0	0·0	1·20	545	5, li.-cl : 10, shs.-r	5, cu.-s, li.-cl, w : v, oc.-slt.-r : 0
20	0·0	7·7	NW : NNW	NNW	7·0	0·0	0·94	428	p.-cl : 6, th.-cl	10 : 10, oc.-slt.-r : v
21	0·0	7·7	W : SW	SW	4·3	0·0	0·22	295	10 : 10 : 10, slt.-r	10, fq.-th.-r : 10, fq.-th.-r
22	1·6	7·7	SW : WSW	WSW : W : WNW	30·0	0·0	3·01	867	10, st.-w : 10, hy.-r, st.-w : 6, cu.-s, ci.-cu, g	v, st.-w : 0, st.-w : 0, w
23	0·3	7·7	W : WSW	WSW : SSW	4·7	0·0	0·22	359	0, w : 0	0 : 10 : 10, slt.-r
24	0·0	7·7	SSW : S	SW : WSW	1·9	0·0	0·06	213	10, r : 10 : 10, slt.-r	10, oc.-th.-r : 10 : 10, slt.-r, f
25	0·0	7·7	NW : NNW	Calm : SW : W	0·0	0·0	0·00	94	10 : 10, f, glm	10, gt.-glm : 10 : 10, slt.-f
26	0·0	7·8	SW : WSW	W : NW : N	3·9	0·0	0·03	223	10 : 10	10 : 10, r
27	0·4	7·8	N	N : NNW	2·7	0·0	0·14	282	10 : 0 : 0	0 : 0
28	1·0	7·8	WSW : SW	SW	15·0	0·0	0·89	480	0, ho.-fr : 10, f : p.-cl	8, cu.-s, li.-cl : 10, w : 10, st.-w
29	0·0	7·8	W : WSW	W : WNW	28·0	0·0	1·81	738	10, hy.-sqs : 0, w : v, t, st.-w	v, sh.-r, hl, w : v, r : 0
30	0·0	7·8	WNW : NW	NW : NNW	7·9	0·0	0·82	517	10, slt.-sn : v, slt.-sn	4, li.-cl : 0
31	0·0	7·8	NNW : N	NNW	6·3	0·0	0·81	478	0, ho.-fr : 0 : v, slt.-sn	10 : 0 : v
Means	0·4	7·8	...	...	...	...	0·49	326		
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°·8, being 2°·5 *higher* than the average for the 50 years, 1841–1890.
The mean *Temperature of the Dew Point* for the month was 38°·8, being 2°·3 *higher* than the average for the 50 years, 1841–1890.
The mean *Degree of Humidity* for the month was 87·7, being 0·8 *less* than the average for the 50 years, 1841–1890.
The mean *Elastic Force of Vapour* for the month was 0in·236, being 0in·020 *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·7, being 0gr·2 *greater* than the average for the 50 years, 1841–1890.
The mean *Weight of a Cubic Foot of Air* for the month was 551 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 6·6.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·056. The maximum daily amount of *Sunshine* was 4·3 hours on December 3.

The highest reading of the *Solar Radiation Thermometer* was 83°·2 on December 3; and the lowest reading of the *Terrestrial Radiation Thermometer* was 26°·0 on December 31.

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. 8, E. 3, S. 10, and W. 10.

The *Greatest Pressure of the Wind* in the month was 30·0 lbs. on the square foot on December 22. The mean daily *Horizontal Movement of the Air* for the month was 326 miles; the greatest daily value was 867 miles on December 22; and the least daily value was 80 miles on December 1.

Rain fell on 15 days in the month, amounting to 1in·953, as measured by gauge No. 6 partly sunk below the ground; being 0in·183 *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.

Greenwich Civil Time, 1894.	d h m	Reading. in.
January	3. 10. 50	30·389
	8. 3. 15	29·917
	11. 12. 3	29·769
	12. 22. 25	29·988
	15. 10. 55	29·909
	19. 10. 30	29·795
	21. 10. 20	29·801
	24. 7. 40	30·048
	26. 19. 0	29·744
	29. 12. 0	29·920
	30. 11. 0	29·604
February	1. 12. 50	29·754
	2. 10. 10	29·891
	4. 11. 10	30·305
	8. 19. 10	30·126
	9. 19. 50	29·706
	14. 22. 5	30·028
	17. 8. 30	30·010
	18. 23. 25	30·378
	25. 1. 30	29·755
	28. 0. 5	29·894
	28. 22. 55	29·925
March	3. 0. 35	30·057
	5. 7. 30	30·198
	7. 11. 45	29·724
	9. 0. 0	29·520
	10. 20. 10	29·586
	12. 10. 0	29·529
	14. 11. 10	29·389
	19. 9. 10	30·163

MINIMA.

Greenwich Civil Time, 1894.	d h m	Reading. in.
January	2. 5. 20	30·003
	6. 5. 20	29·436
	9. 13. 15	29·606
	12. 0. 40	29·614
	14. 13. 50	29·570
	18. 4. 35	29·246
	20. 15. 20	29·355
	22. 17. 0	29·245
	26. 3. 0	29·295
	27. 22. 5	29·393
	30. 2. 45	29·502
	31. 9. 5	29·111
February	1. 20. 20	29·641
	3. 6. 40	29·797
	7. 15. 45	29·725
	9. 13. 30	29·624
	11. 23. 0	29·119
	16. 15. 15	29·883
	17. 18. 45	29·892
	24. 3. 35	29·378
	25. 20. 20	29·428
	28. 10. 45	29·712
March	1. 21. 0	29·613
	4. 15. 35	29·834
	6. 13. 45	29·435
	8. 14. 0	29·422
	9. 22. 20	29·389
	11. 10. 50	29·325
	13. 6. 30	28·833
	15. 3. 50	29·104

MAXIMA.

Greenwich Civil Time, 1894.	d h m	Reading. in.
March	23. 10. 0	30·315
	28. 22. 45	30·105
April	1. 9. 30	29·867
	5. 0. 10	30·001
	10. 9. 0	29·914
	20. 7. 15	29·985
	25. 21. 0	29·602
	29. 6. 0	29·964
May	1. 22. 10	30·134
	5. 7. 0	29·774
	8. 10. 30	29·870
	11. 7. 0	29·709
	13. 7. 0	29·944
	19. 7. 0	30·041
	24. 6. 50	30·121
	27. 20. 15	29·548
June	1. 7. 45	29·758
	3. 13. 0	29·842
	5. 6. 5	29·649
	8. 10. 0	29·834
	10. 0. 0	29·754
	12. 14. 30	29·780
	14. 8. 5	29·987
	19. 13. 0	29·940
	21. 21. 40	30·028
	30. 0. 0	30·225
July	4. 7. 35	30·015
	6. 19. 10	29·764
	6. 21. 5	29·778

MINIMA.

Greenwich Civil Time, 1894.	d h m	Reading. in.
March	21. 16. 15	30·058
	26. 17. 0	29·850
	31. 4. 50	29·554
April	3. 16. 30	29·672
	8. 15. 55	29·683
	16. 13. 25	29·218
	23. 14. 0	29·428
	27. 3. 20	29·407
	30. 4. 0	29·847
May	3. 15. 20	29·613
	6. 16. 0	29·605
	9. 16. 35	29·572
	11. 19. 30	29·565
	15. 16. 40	29·660
	20. 17. 30	29·747
	27. 3. 0	29·438
	29. 2. 0	29·376
June	2. 8. 30	29·542
	4. 16. 30	29·560
	6. 19. 45	29·495
	9. 12. 25	29·680
	10. 23. 0	29·535
	13. 3. 30	29·692
	18. 16. 40	29·567
	20. 16. 50	29·828
	24. 3. 10	29·708
July	2. 18. 20	29·903
	6. 18. 50	29·704
	6. 19. 50	29·704

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, 1894.		Reading.	Greenwich Civil Time, 1894.		Reading.	Greenwich Civil Time, 1894.		Reading.	Greenwich Civil Time, 1894.		Reading.
	d h m	in.		d h m	in.		d h m	in.		d h m	in.
July	8. 7. 50	29·917	July	6. 21. 30	29·720	October	25. 1. 35	29·062	October	25. 16. 45	28·928
	11. 21. 30	29·278		11. 1. 35	29·098		26. 10. 40	29·386		27. 4. 0	29·064
	16. 6. 15	29·817		12. 6. 35	29·134		28. 18. 40	29·574		29. 3. 35	29·401
	20. 9. 30	29·784		18. 14. 5	29·484		31. 21. 40	29·918	November	2. 5. 20	29·642
	22. 9. 10	29·738		21. 16. 45	29·639	November	2. 21. 30	29·710		3. 15. 35	29·580
	24. 11. 0	29·825		23. 2. 50	29·583		4. 18. 40	29·837		5. 14. 0	29·744
	28. 10. 0	29·930		26. 5. 0	29·746		6. 9. 50	30·020		7. 22. 5	29·262
	30. 23. 0	29·860		29. 23. 15	29·706		9. 2. 10	29·580		11. 5. 5	29·218
August	5. 13. 0	29·776	August	3. 0. 35	29·400		11. 15. 30	29·336		12. 19. 20	28·619
	7. 20. 15	29·755		6. 16. 40	29·583		13. 15. 40	29·626		14. 16. 15	28·785
	11. 22. 0	29·984		9. 0. 5	29·520		17. 12. 0	30·015		18. 4. 20	29·903
	13. 22. 10	29·830		13. 4. 5	29·704		19. 21. 0	30·142		20. 14. 35	30·013
	17. 22. 15	29·926		15. 14. 55	29·382		21. 12. 45	30·295		23. 14. 10	30·120
	20. 22. 20	29·752		20. 4. 25	29·660		28. 10. 30	30·230		29. 14. 0	30·079
	23. 0. 0	29·745		21. 20. 55	29·564		30. 10. 0	30·322		30. 13. 25	30·280
	24. 21. 30	29·978		23. 13. 20	29·610	December	1. 10. 5	30·360	December	4. 13. 30	29·542
	30. 7. 40	30·103		26. 5. 0	29·764		6. 9. 25	29·867		8. 1. 35	29·570
September	1. 21. 35	29·954		31. 17. 0	29·881		9. 10. 15	29·990		10. 0. 40	29·904
	6. 23. 0	29·967	September	3. 6. 0	29·698		10. 23. 20	30·005		12. 4. 55	29·836
	10. 9. 15	30·251		8. 8. 20	29·671		12. 21. 10	30·050		14. 22. 50	29·673
	15. 9. 20	30·215		11. 17. 0	30·135		15. 23. 15	30·058		16. 8. 35	29·802
October	1. 9. 20	30·329		25. 16. 15	29·432		17. 1. 35	30·078		19. 6. 10	29·285
	9. 21. 50	30·056	October	6. 14. 40	29·735		21. 3. 30	30·020		22. 6. 10	29·160
	12. 11. 10	30·168		10. 15. 25	29·977		23. 11. 0	30·087		24. 5. 45	29·913
	16. 21. 10	30·012		14. 4. 25	29·795		25. 23. 20	30·416		26. 16. 30	30·304
	23. 9. 20	29·838		21. 4. 50	29·250		27. 22. 35	30·486		29. 11. 40	29·178
				24. 16. 20	28·950		29. 19. 35	29·236		30. 13. 0	29·159

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 1894.
[Extracted from the preceding Table.]

MONTH, 1894.	Readings of the Barometer.		Range.
	Highest.	Lowest.	
	in.	in.	in.
January	30·389	29·111	1·278
February	30·378	29·119	1·259
March	30·315	28·833	1·482
April	30·001	29·218	0·783
May	30·134	29·376	0·758
June	30·225	29·495	0·730
July	30·015	29·098	0·917
August	30·103	29·382	0·721
September	30·251	29·432	0·819
October	30·329	28·928	1·401
November	30·322	28·619	1·703
December	30·486	29·159	1·327

The highest reading in the year was $30^{in}\cdot486$ on December 27. The lowest reading in the year was $28^{in}\cdot619$ on November 12.
The range of reading in the year was $1^{in}\cdot867$.

MONTHLY RESULTS of METEOROLOGICAL ELEMENTS for the YEAR 1894.

MONTH, 1894.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR. Highest.	Lowest.	Range in the Month.	Mean of all the Highest.	Mean of all the Lowest.	Mean of the Daily Ranges.	Monthly Mean.	Excess of Mean above Average of 50 Years.	Mean Temperature of Evaporation.	Mean Temperature of the Dew Point.	Mean Degree of Humidity. (Saturation = 100.)
	in.	°	°	°	°	°	°	°	°	°	°	
January ...	29·700	52·2	12·8	39·4	42·6	33·3	9·3	38·5	0·0	36·9	34·2	85·1
February...	29·875	55·9	24·4	31·5	47·3	35·9	11·4	41·8	+ 2·3	39·8	37·0	83·4
March	29·802	68·0	29·3	38·7	53·9	35·9	18·0	44·5	+ 2·8	41·6	38·3	79·4
April	29·700	75·8	34·3	41·5	61·8	41·9	19·9	51·1	+ 3·9	47·4	43·6	76·3
May.........	29·767	70·4	32·3	38·1	60·9	41·6	19·3	50·3	− 2·8	46·5	42·5	75·1
June	29·839	82·1	43·3	38·8	69·2	49·8	19·4	58·6	− 0·8	54·6	51·0	76·6
July.........	29·724	86·0	49·0	37·0	73·0	53·7	19·4	61·9	− 0·6	57·9	54·4	77·2
August	29·758	80·5	44·2	36·3	69·0	53·4	15·6	59·8	− 1·8	56·6	53·9	81·4
September.	29·952	70·3	33·3	37·0	62·2	47·5	14·7	54·3	− 2·8	51·9	49·5	84·2
October ...	29·745	62·0	30·5	31·5	56·2	45·2	11·0	50·4	+ 0·4	48·5	46·5	86·9
November.	29·805	64·9	31·1	33·8	52·4	41·4	11·0	46·9	+ 3·7	45·2	43·3	87·9
December..	29·854	52·9	28·2	24·7	46·4	37·3	9·1	42·4	+ 2·7	40·8	38·8	87·7
Means	29·793	Highest. 86·0	Lowest. 12·8	Annual Range. 73·2	57·9	43·1	14·8	50·0	+ 0·6	47·3	44·4	81·8

MONTH, 1894.	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 ...	0·197	2·3	553	2·9	6·9	21	3·093	38	59	65	75	152	253	56	34	12	0·59	377
February...	0·220	2·6	552	2·6	6·0	13	1·590	12	63	84	31	50	304	111	16	1	0·77	424
March	0·231	2·7	548	2·5	4·8	12	0·724	49	109	146	16	112	227	50	34	1	0·38	323
April	0·284	3·2	538	2·5	5·9	13	1·442	72	129	137	88	162	87	30	7	8	0·10	228
May.........	0·272	3·1	540	1·7	6·8	17	1·520	181	84	34	11	117	166	58	92	1	0·23	328
June	0·374	4·2	532	1·4	6·5	14	2·042	60	74	57	17	101	252	71	83	5	0·10*	273
July.........	0·424	4·7	527	1·5	6·6	22	3·259	59	51	63	63	95	314	69	28	2	0·06*	254
August ...	0·416	4·6	529	2·3	7·2	17	3·033	72	36	37	16	46	320	125	63	29	0·21	276
September.	0·355	4·0	539	0·8	6·5	13	1·248	309	154	86	4	6	44	35	67	15	0·12*	221
October ...	0·317	3·6	539	1·4	7·8	18	3·986	168	141	73	32	69	164	26	40	31	0·32	260
November.	0·280	3·2	545	2·7	6·2	17	3·001	65	72	47	60	270	147	26	30	3	0·31	311
December..	0·236	2·7	551	1·2	6·6	15	1·953	111	45	31	36	132	199	96	86	8	0·49	326
Sums	...	...	...	...	...	192	26·891	1196	1017	860	449	1312	2477	753	580	116	...	...
Means	0·301	3·4	541	2·0	6·5	...	...	...	...	...	...	...	...	...	...	...	0·31	300

The greatest recorded pressure of the wind on the square foot in the year was 35·0 lbs. on February 11.
The greatest recorded daily horizontal movement of the air in the year was 942 miles on February 11.
The least recorded daily horizontal movement of the air in the year was 45 miles on October 9.
* The mean daily pressures of the wind for June, July and September are derived from the results for 25, 24 and 29 days respectively.

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

Hour, Greenwich Civil Time.	1894.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Midnight	29·709	29·862	29·810	29·705	29·784	29·834	29·738	29·761	29·957	29·758	29·794	29·876	29·799
1h.	29·698	29·857	29·807	29·700	29·778	29·833	29·730	29·758	29·953	29·755	29·794	29·868	29·794
2	29·698	29·858	29·800	29·695	29·773	29·833	29·723	29·754	29·948	29·750	29·798	29·866	29·791
3	29·695	29·855	29·791	29·689	29·768	29·831	29·718	29·750	29·943	29·742	29·797	29·860	29·787
4	29·690	29·856	29·787	29·687	29·767	29·834	29·720	29·747	29·939	29·738	29·796	29·852	29·784
5	29·689	29·862	29·786	29·688	29·772	29·838	29·721	29·748	29·939	29·740	29·799	29·844	29·785
6	29·692	29·866	29·792	29·696	29·774	29·843	29·725	29·755	29·943	29·742	29·801	29·841	29·789
7	29·697	29·874	29·800	29·702	29·777	29·849	29·730	29·760	29·949	29·748	29·808	29·844	29·795
8	29·706	29·883	29·809	29·705	29·777	29·853	29·732	29·763	29·956	29·756	29·816	29·850	29·801
9	29·715	29·886	29·816	29·709	29·774	29·851	29·731	29·765	29·960	29·757	29·821	29·854	29·803
10	29·723	29·890	29·818	29·710	29·771	29·849	29·730	29·766	29·960	29·757	29·826	29·859	29·805
11	29·723	29·891	29·815	29·706	29·768	29·848	29·730	29·765	29·957	29·755	29·823	29·855	29·803
Noon	29·715	29·886	29·812	29·702	29·763	29·844	29·728	29·762	29·955	29·746	29·813	29·848	29·798
13h.	29·702	29·878	29·803	29·698	29·761	29·841	29·725	29·760	29·951	29·739	29·805	29·839	29·792
14	29·696	29·871	29·796	29·692	29·756	29·838	29·721	29·757	29·947	29·732	29·798	29·837	29·787
15	29·696	29·870	29·791	29·688	29·753	29·834	29·718	29·754	29·943	29·729	29·795	29·842	29·784
16	29·694	29·871	29·787	29·685	29·748	29·828	29·715	29·750	29·940	29·728	29·796	29·846	29·782
17	29·694	29·874	29·790	29·687	29·746	29·824	29·713	29·748	29·941	29·731	29·798	29·851	29·783
18	29·697	29·881	29·796	29·692	29·749	29·824	29·712	29·749	29·946	29·739	29·802	29·857	29·787
19	29·697	29·885	29·803	29·700	29·754	29·828	29·714	29·753	29·955	29·744	29·805	29·861	29·792
20	29·697	29·885	29·807	29·709	29·763	29·832	29·718	29·762	29·963	29·744	29·805	29·862	29·796
21	29·694	29·886	29·808	29·715	29·773	29·843	29·728	29·766	29·968	29·748	29·807	29·861	29·800
22	29·690	29·886	29·809	29·718	29·776	29·846	29·730	29·767	29·972	29·749	29·806	29·860	29·801
23	29·687	29·884	29·809	29·717	29·774	29·849	29·731	29·767	29·972	29·746	29·808	29·859	29·800
24	29·681	29·883	29·805	29·715	29·772	29·849	29·727	29·764	29·970	29·745	29·809	29·853	29·798
Means { 0h.–23h.	29·700	29·875	29·802	29·700	29·767	29·839	29·724	29·758	29·952	29·745	29·805	29·854	29·793
Means { 1h.–24h.	29·699	29·876	29·802	29·700	29·766	29·839	29·724	29·758	29·953	29·744	29·805	29·853	29·793
Number of Days employed.	31	28	31	30	31	30	31	31	30	31	30	31	...

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

Hour, Greenwich Civil Time.	1894.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	37·7	40·4	40·9	46·3	45·8	54·0	57·1	56·6	51·2	48·9	45·6	42·1	47·2
1h.	37·6	40·2	40·7	45·9	45·3	53·4	56·5	56·3	50·9	48·8	45·6	41·8	46·9
2	37·6	40·1	40·4	45·7	44·8	52·8	56·0	55·9	50·6	48·5	45·6	41·6	46·6
3	37·7	39·9	40·1	45·4	44·2	52·2	55·6	55·3	50·3	48·4	45·6	41·5	46·3
4	37·7	39·7	39·8	45·0	43·8	51·8	55·2	55·0	50·0	48·2	45·5	41·2	46·1
5	37·6	39·5	39·4	45·0	44·0	52·1	55·7	54·8	49·9	48·0	45·2	41·0	46·0
6	37·5	39·5	39·3	45·7	45·4	53·4	56·9	55·2	50·1	47·9	45·2	40·9	46·4
7	37·3	39·4	39·4	47·1	47·9	55·2	58·9	56·6	51·0	48·0	45·1	40·7	47·2
8	37·2	39·8	41·1	49·4	50·3	57·8	61·3	58·5	52·6	48·7	45·4	40·7	48·6
9	37·6	40·7	43·8	52·3	52·6	60·3	63·6	60·8	54·6	50·2	46·1	40·9	50·3
10	38·4	42·2	46·7	54·7	54·5	62·3	65·7	62·5	56·7	51·6	47·5	41·8	52·1
11	39·5	43·7	48·9	56·4	55·5	63·5	66·7	63·4	58·4	53·0	49·2	42·8	53·4
Noon	40·4	44·5	50·1	58·3	56·6	64·9	67·8	64·1	59·4	53·8	50·7	43·9	54·5
13h.	40·8	44·9	51·5	59·0	56·5	65·6	68·2	65·1	59·7	53·6	51·1	44·6	55·0
14	41·0	45·5	52·1	59·1	56·6	65·7	69·1	65·6	60·0	54·2	50·9	44·6	55·4
15	40·5	45·3	51·9	58·1	55·9	64·9	68·8	65·3	59·9	53·8	50·1	44·2	54·9
16	39·8	44·9	51·0	57·6	55·5	64·7	68·2	64·6	59·3	53·0	48·9	43·8	54·3
17	39·0	43·8	49·1	56·2	55·1	63·8	67·3	63·6	57·9	51·9	47·5	43·2	53·2
18	38·6	42·8	46·9	54·4	53·7	62·3	65·4	62·3	56·5	51·0	46·7	43·0	52·0
19	38·2	42·1	45·1	51·5	51·8	60·1	63·4	60·5	54·8	50·4	46·0	42·8	50·6
20	37·9	41·8	43·7	49·8	49·6	58·1	61·4	59·4	53·8	49·8	45·8	42·6	49·5
21	37·9	41·4	42·6	48·4	48·1	56·4	59·7	58·5	52·9	49·5	45·5	42·6	48·6
22	38·0	41·0	42·0	47·6	47·2	55·4	58·5	57·8	52·1	49·3	45·3	42·3	48·0
23	37·9	40·8	41·6	46·7	46·4	54·8	57·8	57·1	51·6	49·4	45·3	42·0	47·6
24	37·8	49·5	41·2	46·3	45·9	54·3	57·1	56·6	50·9	49·2	45·1	41·8	47·2
Means { 0h.–23h.	38·5	41·8	44·5	51·1	50·3	58·6	61·9	59·8	54·3	50·4	46·9	42·4	50·0
Means { 1h.–24h.	38·5	41·8	44·5	51·1	50·3	58·6	61·9	59·8	54·3	50·4	46·9	42·3	50·0
Number of Days employed.	31	28	31	30	31	30	31	31	30	31	30	31	...

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

Hour, Greenwich Civil Time.	1894. January.	February.	March.	April.	May	June	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	36·4	39·0	39·5	44·8	43·9	52·4	55·5	55·2	50·2	47·7	44·5	40·8	45·8
1h.	36·4	38·8	39·5	44·4	43·6	51·8	55·0	54·9	49·9	47·5	44·4	40·6	45·6
2	36·5	38·7	39·2	44·3	43·2	51·3	54·7	54·6	49·7	47·3	44·5	40·4	45·4
3	36·5	38·4	38·9	44·0	42·8	50·8	54·5	54·3	49·5	47·3	44·5	40·4	45·2
4	36·5	38·3	38·7	43·7	42·6	50·5	54·4	54·0	49·3	47·2	44·4	40·1	45·0
5	36·4	38·2	38·3	43·7	42·7	50·8	54·7	53·9	49·3	47·0	44·2	39·9	44·9
6	36·3	38·0	38·2	44·2	43·6	51·6	55·6	54·1	49·3	46·8	44·2	39·7	45·1
7	36·2	38·0	38·4	45·3	45·3	52·5	56·7	54·8	50·0	46·9	44·1	39·5	45·6
8	36·1	38·4	39·5	46·8	46·7	54·0	57·8	55·9	51·3	47·4	44·3	39·5	46·5
9	36·3	39·1	41·6	48·5	48·0	55·3	58·9	57·1	52·4	48·4	44·7	39·6	47·5
10	36·9	40·2	43·5	49·6	48·8	56·4	59·9	57·9	53·7	49·3	45·6	40·3	48·5
11	37·4	41·0	44·6	50·4	49·3	56·9	60·0	58·1	54·2	50·1	46·7	41·1	49·2
Noon	38·1	41·5	45·1	51·5	50·0	57·7	60·5	58·6	54·8	50·6	47·5	41·7	49·8
13h.	38·4	41·8	45·7	51·7	49·9	57·9	60·5	59·1	54·9	50·4	47·7	42·0	50·0
14	38·4	42·1	46·0	51·7	49·8	58·4	61·0	59·3	55·0	50·7	47·4	42·0	50·2
15	38·2	41·9	45·7	51·3	49·6	58·1	61·2	59·3	55·0	50·3	47·1	41·7	50·0
16	37·8	41·6	45·2	50·9	49·4	58·1	60·8	59·2	54·5	49·9	46·6	41·5	49·6
17	37·3	40·8	44·1	50·1	49·2	57·7	60·3	58·6	53·8	49·3	45·7	41·2	49·0
18	36·9	40·4	43·0	48·8	48·3	56·7	59·5	58·1	52·9	48·8	45·0	41·2	48·3
19	36·7	40·1	42·0	47·6	47·4	55·7	58·8	57·4	52·2	48·6	44·6	41·1	47·7
20	36·4	39·9	41·3	46·9	46·4	54·9	58·1	56·9	51·7	48·1	44·3	41·1	47·2
21	36·5	39·6	40·7	46·2	45·4	54·1	57·3	56·4	51·1	48·0	44·3	41·1	46·7
22	36·6	39·4	40·3	45·6	44·9	53·4	56·8	56·0	50·6	47·9	44·1	41·0	46·4
23	36·5	39·3	40·0	45·0	44·4	53·1	56·1	55·6	50·2	47·9	44·1	40·7	46·1
24	36·5	39·1	39·8	44·8	44·0	52·7	55·5	55·2	49·9	48·0	44·0	40·6	45·8
Means 0h.–23h.	36·9	39·8	41·6	47·4	46·5	54·6	57·9	56·6	51·9	48·5	45·2	40·8	47·3
Means 1h.–24h.	36·9	39·8	41·6	47·4	46·5	54·6	57·9	56·6	51·9	48·5	45·2	40·8	47·3
Number of Days employed.	31	28	31	30	31	30	31	31	30	31	30	31	...

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

Hour, Greenwich Civil Time.	1894. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	34·6	37·2	37·8	43·1	41·7	50·8	54·1	53·9	49·2	46·4	43·2	39·2	44·3
1h.	34·8	37·0	38·0	42·7	41·6	50·2	53·7	53·6	48·9	46·1	43·0	39·1	44·1
2	35·0	36·9	37·7	42·7	41·4	49·8	53·5	53·4	48·8	46·0	43·2	38·9	43·9
3	34·9	36·5	37·3	42·4	41·1	49·4	53·5	53·3	48·6	46·1	43·2	39·0	43·8
4	34·9	36·5	37·3	42·2	41·2	49·2	53·6	53·0	48·5	46·1	43·1	38·7	43·7
5	34·8	36·5	36·9	42·2	41·1	49·5	53·8	53·0	48·6	45·9	43·0	38·5	43·6
6	34·7	36·1	36·8	42·5	41·5	49·8	54·4	53·0	48·4	45·6	43·0	38·2	43·7
7	34·7	36·2	37·1	43·3	42·4	49·9	54·7	53·2	49·0	45·7	42·9	38·0	43·9
8	34·6	36·6	37·5	44·0	42·9	50·6	54·8	53·6	50·0	46·0	43·0	38·0	44·3
9	34·5	37·1	39·0	44·6	43·4	50·9	54·9	53·9	50·3	46·5	43·1	38·0	44·7
10	34·8	37·7	39·9	44·7	43·3	51·3	55·2	54·0	50·9	47·0	43·5	38·4	45·1
11	34·7	37·8	40·0	44·8	43·4	51·3	54·6	53·7	50·4	47·2	44·0	39·1	45·1
Noon	35·2	38·0	39·8	45·4	43·9	51·7	54·7	54·0	50·7	47·5	44·1	39·1	45·3
13h.	35·4	38·2	39·7	45·2	43·8	51·7	54·5	54·2	50·6	47·3	44·2	38·9	45·3
14	35·1	38·2	39·8	45·1	43·5	52·5	54·7	54·2	50·6	47·3	43·7	38·9	45·3
15	35·3	38·0	39·4	45·2	43·7	52·5	55·3	54·4	50·7	46·9	43·9	38·8	45·3
16	35·2	37·8	39·2	44·8	43·6	52·6	55·0	54·7	50·2	46·8	44·1	38·8	45·2
17	35·1	37·3	38·7	44·4	43·5	52·7	54·7	54·4	50·1	46·7	43·7	38·8	45·0
18	34·6	37·5	38·6	43·3	43·0	51·9	54·7	54·5	49·6	46·5	43·1	39·0	44·7
19	34·6	37·6	38·4	43·6	42·9	51·8	54·9	54·7	49·7	46·7	43·0	39·1	44·7
20	34·4	37·5	38·5	43·8	43·0	52·0	55·3	54·7	49·6	46·3	42·6	39·3	44·7
21	34·6	37·3	38·5	43·8	42·4	51·9	55·2	54·5	49·3	46·4	42·9	39·3	44·7
22	34·7	37·4	38·2	43·4	42·4	51·5	55·3	54·4	49·1	46·4	42·7	39·4	44·6
23	34·6	37·4	38·0	43·1	42·1	51·4	54·6	54·2	48·8	46·3	42·7	39·1	44·4
24	34·8	37·3	38·0	43·1	41·8	51·1	54·1	53·9	48·9	46·7	42·7	39·1	44·3
Means 0h.–23h.	34·8	37·3	38·4	43·8	42·6	51·1	54·6	53·9	49·6	46·5	43·3	38·8	44·6
Means 1h.–24h.	34·8	37·3	38·4	43·8	42·6	51·1	54·6	53·9	49·6	46·5	43·3	38·8	44·6

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.	1894. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
Midnight	89	89	89	89	86	89	89	91	93	92	92	90	90
1h.	90	89	90	89	87	89	90	91	93	91	91	91	90
2	91	89	90	90	88	90	91	91	94	92	92	91	91
3	90	88	90	89	89	90	93	93	94	92	92	92	91
4	90	89	91	90	90	91	95	93	95	93	92	91	92
5	90	90	91	90	90	91	94	94	96	93	92	91	92
6	90	88	91	89	87	88	92	93	94	92	92	90	90
7	90	89	92	87	83	83	86	88	93	92	92	90	89
8	90	89	88	82	77	77	79	83	92	91	92	90	86
9	89	87	83	75	71	71	74	79	85	87	90	90	82
10	87	85	78	69	66	68	70	74	81	84	87	89	78
11	83	79	71	65	65	64	65	71	75	81	82	86	74
Noon	82	77	68	62	63	62	63	70	73	79	79	82	72
13h.	81	77	64	60	62	60	61	68	72	79	78	80	70
14	80	76	64	59	62	62	60	67	71	77	77	80	70
15	82	76	63	62	64	64	62	68	72	77	80	81	71
16	84	76	64	62	65	65	62	71	72	79	84	82	72
17	86	77	67	65	66	67	64	73	75	83	87	84	74
18	86	82	74	66	67	69	69	76	77	85	88	86	77
19	87	85	77	75	72	74	74	82	83	88	90	86	81
20	87	86	81	80	78	80	81	85	85	88	89	88	84
21	88	86	86	85	81	85	86	86	88	90	91	88	87
22	88	87	87	86	84	87	89	88	90	90	91	90	88
23	88	88	88	88	86	88	89	90	90	90	91	90	89
24	89	89	89	89	86	89	89	91	93	92	91	91	90
Means { 0h.–23h.	87	84	80	77	76	77	78	82	85	87	88	87	82
Means { 1h.–24h.	87	84	80	77	76	77	78	82	85	87	88	87	82

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 1894.

Month, 1894.	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	...	...	...	...	0·3	5·1	9·4	10·0	8·3	6·6	1·8	0·1	...	...	...	...	41·6	259·1	0·161	18
February ...	...	...	...	0·3	3·0	7·0	10·4	10·5	9·3	9·3	7·6	5·0	0·4	...	...	...	62·8	277·9	0·226	26
March	...	...	0·1	3·8	9·8	13·4	14·5	14·1	16·8	15·6	16·3	15·0	10·8	3·0	...	...	133·2	366·9	0·363	37
April	...	...	2·0	4·9	8·1	9·5	10·7	14·2	15·4	15·2	14·5	13·5	10·2	4·6	0·2	...	123·0	414·9	0·296	48
May	...	6·7	12·9	11·7	12·7	12·8	9·4	10·4	9·9	9·8	9·6	7·8	10·3	7·8	4·7	...	136·5	482·1	0·283	57
June	1·1	7·0	7·7	9·3	10·7	10·8	10·1	11·7	10·5	9·5	9·2	8·9	7·4	7·9	5·4	...	127·2	494·5	0·257	62
July	0·4	5·9	9·6	9·8	10·8	12·9	11·7	10·5	10·3	12·3	11·2	9·9	11·1	13·3	7·7	1·4	148·8	496·8	0·300	60
August	...	0·5	4·8	6·4	9·8	10·9	9·9	9·5	9·6	12·2	9·5	8·1	7·0	4·5	1·2	...	103·9	449·1	0·231	52
September ...	...	...	...	1·1	2·7	4·6	9·9	9·1	8·9	7·6	7·1	6·6	0·8	...	...	...	58·4	376·9	0·155	41
October	...	...	...	...	1·9	3·3	5·5	4·9	4·4	4·9	7·1	4·7	0·6	...	...	...	37·3	328·7	0·113	30
November ...	...	...	...	...	1·6	6·1	9·9	10·1	11·7	12·2	9·6	4·0	...	...	...	...	65·2	264·4	0·247	20
December ...	...	...	...	...	...	0·5	3·2	3·7	2·6	2·9	0·8	...	...	...	...	...	13·7	242·7	0·056	16
For the Year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1051·6	4454·0	0·236	...

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 1894.

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

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

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.						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	48.7	37.6	46.0	47.3	47.0	46.3	−0.7	+0.3	+0.1	−0.2	−0.1	0.0
2	52.1	37.5	42.0	48.9	51.2	40.8	−0.8	+0.2	+0.4	+0.4	−0.2	+0.7
3	50.8	32.0	42.6	45.6	49.9	40.0	−1.2	+0.5	+1.3	−0.1	0.0	+0.1
4	51.0	36.1	...	...	...	...	−1.0	+0.1	...	...	...	...
5	50.2	31.0	38.3	48.2	46.8	43.1	−0.8	+0.6	+0.2	+0.5	−0.2	+0.3
6	51.7	42.0	47.0	50.0	48.5	42.4	−1.1	+0.5	0.0	−0.1	−0.1	+0.3
7	49.4	35.8	40.2	45.6	47.6	42.1	−0.9	+0.5	0.0	−0.2	−0.4	0.0
8	49.0	40.4	47.3	48.0	46.7	40.9	−0.3	+1.0	−0.2	+0.1	−0.1	+0.1
9	50.9	38.1	46.9	49.8	48.5	48.9	−0.6	+0.3	−0.1	−0.2	−0.1	+0.6
10	54.3	43.7	47.6	50.3	54.1	46.5	−1.0	+0.5	−0.2	−0.4	−0.5	+0.2
11	55.2	42.1	...	...	...	...	−1.3	+0.6	...	...	...	...
12	51.1	39.6	44.6	48.7	51.1	45.9	−1.0	+0.4	+0.1	−0.5	−0.2	0.0
13	49.4	39.8	41.3	45.6	48.3	39.9	−0.8	+0.5	−0.1	0.0	−0.7	+0.1
14	50.2	35.5	42.6	46.2	45.7	40.7	−1.1	+0.3	+0.1	+0.2	0.0	0.0
15	47.9	39.3	41.2	43.0	47.4	41.9	−0.5	0.0	−0.1	−0.2	−0.4	+0.5
16	49.9	31.5	39.9	45.9	48.1	36.5	−1.1	+0.9	+0.1	+0.4	+0.2	−0.1
17	47.7	30.0	37.0	44.9	46.2	36.6	−1.6	−0.2	+0.1	+0.1	−0.8	+0.1
18	49.8	30.1	...	...	...	...	+0.4	+0.8	...	...	...	...
19	52.5	30.9	38.8	47.0	52.5	47.6	−0.4	+0.7	−0.1	+0.3	+0.4	+0.4
20	52.0	41.0	47.1	48.2	48.9	41.0	−1.0	+0.8	−0.1	0.0	0.0	+0.1
21	54.1	40.4	43.8	51.7	53.1	41.7	−0.7	+1.2	0.0	−0.3	−0.1	0.0
22	46.1	38.5	42.2	45.3	44.6	40.3	−0.6	+0.1	−0.4	−0.3	+0.1	−0.1
23	52.6	39.2	...	...	...	...	−0.4	+0.8	...	...	...	...
24	56.0	35.4	41.2	51.1	55.9	44.1	−1.0	+0.7	−0.1	−0.7	−0.3	+0.2
25	57.1	37.9	...	...	...	...	−0.3	+1.0	...	...	...	...
26	60.0	32.4	...	...	...	...	−0.5	+0.6	...	...	...	...
27	64.0	31.1	48.2	60.1	63.6	46.2	0.0	+0.9	+1.0	−0.5	+0.6	+0.4
28	56.0	30.0	40.0	53.0	55.5	41.7	−0.7	+0.6	−0.6	−1.0	−0.2	+0.1
29	58.0	39.9	41.9	50.5	58.0	40.3	0.0	+0.1	−0.4	−0.3	+0.2	+0.3
30	65.0	33.0	51.9	65.0	62.7	49.3	0.0	+0.1	+0.4	+0.4	−0.3	+0.4
31	66.0	45.2	58.7	62.6	65.4	50.7	−2.0	+1.4	+0.1	+0.1	+0.8	+0.3
Means	53.2	36.7	43.9	49.7	51.5	43.0	−0.7	+0.5	+0.1	−0.1	−0.1	+0.2

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	48.8	38.1	46.7	47.7	46.9	46.4	−0.6	+0.8	+0.8	+0.2	−0.2	+0.1
2	51.7	36.9	41.9	48.0	50.5	41.1	−1.2	−0.4	+0.3	−0.5	−0.9	+1.0
3	51.3	31.2	43.1	46.1	50.6	42.6	−0.7	−0.3	+1.8	+0.4	+0.7	+2.7
4	50.7	35.4	...	...	...	...	−1.3	−0.6	...	...	...	...
5	49.3	30.0	38.7	47.1	46.8	43.1	−1.7	−0.4	+0.6	−0.6	−0.2	+0.3
6	51.2	40.9	47.2	50.0	48.4	42.6	−1.6	−0.6	+0.2	−0.1	−0.2	+0.5
7	49.5	35.2	40.6	45.8	47.1	43.1	−0.8	−0.1	+0.4	0.0	−0.9	+1.0
8	49.1	39.9	47.7	47.8	46.8	41.0	−0.2	+0.5	+0.2	−0.1	0.0	+0.2
9	50.7	38.1	47.7	50.2	48.8	48.7	−0.8	+0.3	+0.7	+0.2	+0.2	+0.4
10	54.3	43.1	47.8	50.7	53.6	46.8	−1.0	−0.1	0.0	0.0	−1.0	+0.5
11	54.8	41.1	...	...	...	...	−1.7	−0.4	...	...	...	...
12	51.3	39.0	44.7	48.8	51.1	45.8	−0.8	−0.2	+0.2	−0.4	−0.2	−0.1
13	48.8	39.3	41.4	45.5	48.8	40.4	−1.4	0.0	0.0	−0.1	−0.2	+0.6
14	49.8	34.7	42.5	46.4	46.7	41.7	−1.5	−0.5	0.0	+0.4	+1.0	+1.0
15	47.4	39.1	41.1	43.3	47.4	41.9	−1.0	−0.2	−0.2	+0.1	−0.4	+0.5
16	49.6	30.7	39.8	44.8	48.1	36.0	−1.4	+0.1	0.0	−0.7	+0.2	−0.6
17	47.6	30.0	36.6	42.8	47.5	37.2	−1.7	−0.2	−0.3	−2.0	+0.5	+0.7
18	50.3	29.4	...	...	...	...	+0.9	+0.1	...	...	...	...
19	52.7	31.0	39.7	47.0	52.3	48.5	−0.2	+0.8	+0.8	+0.3	+0.2	+1.3
20	52.5	39.1	47.1	48.3	49.1	40.6	−0.5	−1.1	−0.1	+0.1	+0.2	−0.3
21	55.4	39.1	43.8	52.7	54.8	41.6	+0.6	−0.1	0.0	+0.7	+1.6	−0.1
22	46.7	38.0	42.2	45.7	45.3	40.1	0.0	−0.4	−0.4	+0.1	+0.8	−0.3
23	54.1	37.3	...	...	...	...	+1.1	−1.1	...	...	...	...
24	57.5	34.0	41.6	51.7	56.6	43.8	+0.5	−0.7	+0.3	−0.1	+0.4	−0.1
25	58.1	36.2	...	...	...	...	+0.7	−0.7	...	...	...	...
26	61.7	31.9	...	...	...	...	+1.2	+0.1	...	...	...	...
27	65.3	30.9	46.0	60.6	64.3	45.9	+1.3	+0.7	−1.2	0.0	+1.3	+0.1
28	57.9	29.0	40.6	53.5	56.8	41.6	+1.2	−0.4	0.0	−0.5	+1.1	0.0
29	59.6	39.5	42.1	51.0	59.6	40.0	+1.6	−0.3	−0.2	+0.2	+1.8	0.0
30	64.0	32.3	48.9	64.0	62.3	48.2	−1.0	−0.6	−2.6	−0.6	−0.7	−0.7
31	66.3	45.2	58.6	61.0	65.6	52.0	−1.7	+1.4	0.0	−1.5	+1.0	+1.6
Means	53.5	36.0	43.9	49.6	51.8	43.2	−0.4	−0.1	+0.1	−0.2	+0.2	+0.4

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

APRIL.

Days of the Month.	Readings of Thermometers in 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	67.8	42.3	...	...	...	...	−1.2	+0.8	...	...	...	...
2	65.0	42.6	55.8	61.4	57.1	48.3	−1.0	+1.0	+0.2	+0.4	0.0	+0.8
3	67.2	40.6	56.4	65.6	63.7	46.3	−1.0	+1.5	+1.2	+1.1	−0.1	+0.2
4	58.2	41.2	43.8	55.4	57.6	44.9	0.0	+0.2	−0.2	−0.4	+0.1	+0.2
5	59.2	37.8	49.6	58.7	58.9	47.0	−0.8	+1.1	−0.1	0.0	−0.1	+0.1
6	54.0	45.5	48.8	52.1	52.9	46.1	−0.9	+0.3	0.0	−0.7	−0.7	+0.1
7	64.3	40.8	47.2	61.9	63.0	51.1	−1.0	+0.5	−0.7	−0.1	−0.5	+0.1
8	74.7	44.9	...	...	...	...	−1.1	+0.9	...	...	...	...
9	66.9	48.7	57.6	65.9	63.2	50.9	−1.9	+0.8	−0.6	−0.9	−1.0	+0.1
10	72.0	40.5	61.2	70.1	69.8	52.7	−1.8	+1.1	+1.0	+0.1	+0.5	+0.1
11	73.8	44.4	61.1	73.8	63.9	54.2	−1.1	+1.2	+0.3	−0.3	−0.2	−0.1
12	64.1	50.2	55.2	62.6	61.5	50.2	−2.9	+0.9	−0.6	−0.7	−1.1	+0.1
13	61.5	43.5	51.8	55.3	61.5	48.7	−1.5	+0.6	−0.3	−0.5	−0.1	+0.6
14	55.6	41.4	53.9	52.4	53.4	51.7	−0.9	+1.0	−0.2	−0.3	−0.5	+0.1
15	61.8	48.5	...	...	...	...	−1.1	+0.5	...	...	...	...
16	54.0	47.1	50.3	51.2	53.1	48.7	−0.2	0.0	−0.4	−0.6	−0.5	+0.2
17	59.3	44.2	50.3	58.7	55.4	46.7	−1.6	+0.7	−0.5	−0.5	−0.4	0.0
18	62.0	42.3	54.0	58.0	58.7	48.1	−1.0	+1.1	−0.6	−0.5	+0.4	+0.1
19	48.9	43.4	45.7	47.1	47.8	45.7	+0.7	+0.3	−0.1	−0.4	−0.1	−0.1
20	48.1	42.5	44.2	46.1	47.6	45.0	+0.1	0.0	−0.5	−0.3	−0.1	−0.3
21	54.2	39.1	45.8	51.1	53.6	41.8	−0.8	+1.2	−1.0	−1.8	−0.1	0.0
22	54.1	35.1	...	...	...	...	−1.6	+0.8	...	...	...	...
23	56.7	38.5	51.9	55.6	53.7	48.6	−2.2	+1.0	−0.1	+0.3	0.0	+0.1
24	59.1	41.6	54.2	53.5	52.6	47.6	−1.9	+1.1	−0.6	−0.5	−0.4	−0.1
25	60.6	46.4	48.9	56.2	58.7	48.2	−1.4	+0.7	−0.4	−1.3	−0.9	+0.9
26	60.3	45.7	54.9	57.6	55.9	47.4	−1.4	+0.5	+0.3	−0.9	−0.2	+0.2
27	60.0	45.3	54.1	57.6	60.0	48.5	−2.0	+0.9	−0.9	−0.1	−0.8	+0.5
28	60.2	41.3	52.1	59.7	50.2	46.6	−1.3	+1.1	−0.9	−0.8	−0.5	0.0
29	62.0	40.2	...	...	...	...	−0.5	+1.0	...	...	...	...
30	56.6	47.7	52.9	54.8	52.8	47.7	+0.5	+0.2	+0.4	−0.3	0.0	−0.2
Means	60.7	43.1	52.1	57.7	57.1	48.1	−1.1	+0.8	−0.2	−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	68.4	42.2	...	...	...	...	−0.6	+0.7	...	...	...	...
2	64.7	41.4	56.4	61.7	57.1	48.6	−1.3	−0.2	+0.8	+0.7	0.0	+1.1
3	66.8	39.4	55.5	63.9	64.6	46.1	−1.4	+0.3	+0.3	−0.6	+0.8	0.0
4	60.3	39.7	44.6	55.3	59.1	44.8	+2.1	−1.3	+0.6	−0.5	+1.6	+0.1
5	60.5	36.1	47.9	58.9	59.6	46.9	+0.5	−0.6	−1.8	+0.2	+0.6	0.0
6	55.1	45.2	48.8	53.3	53.9	45.8	+0.2	0.0	0.0	+0.5	+0.3	−0.2
7	65.8	40.1	47.9	63.7	63.6	51.3	+0.5	−0.2	0.0	+1.7	+0.1	+0.3
8	75.3	44.0	...	...	...	...	−0.5	0.0	...	...	...	...
9	65.5	49.1	57.6	63.9	63.6	52.1	−3.3	+1.2	−0.6	−2.9	−0.6	+1.3
10	73.3	39.9	60.5	68.8	70.1	52.1	−0.5	+0.5	+0.3	−1.2	+0.8	−0.5
11	72.2	43.1	61.0	72.2	65.1	54.5	−2.7	−0.1	+0.2	−1.9	+1.0	+0.2
12	64.7	50.2	55.2	61.1	61.1	50.5	−2.3	+0.9	−0.6	−2.2	−1.5	+0.4
13	61.7	42.3	50.9	54.4	60.2	49.6	−1.3	−0.6	−1.2	−1.4	−1.4	+1.5
14	55.5	40.3	54.6	52.6	53.6	52.3	−1.0	−0.1	+0.5	−0.1	−0.3	+0.7
15	59.9	48.1	...	...	...	...	−3.0	+0.1	...	...	...	...
16	54.0	47.2	51.5	51.6	53.0	49.2	−0.2	+0.1	+0.8	−0.2	−0.6	+0.7
17	58.8	44.6	51.5	58.8	55.8	46.8	−2.1	+1.1	+0.7	−0.4	0.0	+0.1
18	63.7	41.1	55.2	58.2	58.1	48.1	+0.7	−0.1	+0.6	−0.3	−0.2	+0.1
19	48.5	42.6	45.6	47.5	47.6	45.6	+0.3	−0.5	−0.2	0.0	−0.3	−0.2
20	48.5	42.0	44.5	46.5	47.8	45.2	+0.5	−0.5	−0.2	+0.1	+0.1	−0.1
21	54.5	37.1	47.1	51.7	53.6	41.8	−0.5	−0.8	+0.3	−1.2	−0.1	0.0
22	55.3	34.0	...	...	...	...	−0.4	−0.3	...	...	...	...
23	57.5	37.5	52.5	55.9	54.2	48.8	−1.4	0.0	+0.5	+0.6	+0.5	+0.3
24	58.1	41.3	54.6	53.7	52.8	48.0	−2.9	+0.8	−0.2	−0.3	−0.2	+0.3
25	60.1	47.1	48.6	56.0	58.7	48.3	−1.9	+1.4	−0.7	−1.5	−0.9	+1.0
26	60.1	45.2	54.0	58.1	56.0	48.5	−1.6	0.0	−0.6	−0.4	−0.1	+1.3
27	59.9	44.4	53.6	57.3	58.9	48.9	−2.1	0.0	−1.4	−0.4	−1.9	+0.9
28	61.8	40.0	51.7	60.5	49.8	46.6	+0.3	−0.2	−1.3	0.0	−0.9	0.0
29	61.9	39.0	...	...	...	...	−0.6	−0.2	...	...	...	...
30	56.8	47.2	53.5	55.1	52.6	47.9	+0.7	−0.3	+1.0	0.0	−0.2	0.0
Means	61.0	42.4	52.2	57.6	57.2	48.3	−0.9	0.0	−0.1	−0.5	−0.1	+0.4

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. 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	52·7	40·2	47·8	50·6	51·2	44·9	-1·4	+1·0	-0·1	-0·5	-0·2	-0·1
2	54·4	37·1	48·1	53·2	52·2	48·4	-2·2	+0·7	0·0	-0·3	-0·3	+0·1
3	59·1	46·8	55·7	53·0	57·9	49·5	-1·8	+0·3	-0·9	+0·4	-0·1	+0·7
4	53·3	44·0	51·3	51·3	50·6	44·0	-1·6	+0·2	-0·6	-0·1	-0·2	+0·3
5	59·2	39·2	48·1	54·7	56·6	52·5	-1·9	+0·5	-0·1	-0·4	-0·3	+0·4
6	59·0	46·0	...	...	...	...	-3·7	+0·8	...	...	...	...
7	62·9	41·5	54·9	57·6	59·3	49·4	-1·8	+0·3	-0·2	-0·1	-0·4	+0·4
8	61·3	44·3	57·9	58·2	59·3	51·4	-2·0	+0·8	-0·9	-0·3	-0·3	+0·1
9	59·1	46·9	54·2	56·6	53·8	46·9	-2·2	0·0	-0·3	-0·5	-0·3	-0·1
10	57·8	40·9	51·5	56·1	53·7	46·1	-1·1	+0·5	-1·1	-1·0	-0·1	+0·3
11	59·2	40·6	55·3	56·6	50·9	50·3	-1·8	+1·0	-0·4	-0·8	-0·1	0·0
12	56·0	48·3	49·1	50·8	54·0	49·3	0·0	+0·8	-0·5	-0·1	+0·2	+0·5
13	61·8	39·0	...	...	...	...	-2·3	+0·8	...	...	...	...
14	66·4	48·4	...	...	...	...	-2·0	+0·3	...	...	...	...
15	67·5	46·3	62·7	65·7	64·7	56·4	-1·1	+0·9	+0·9	0·0	0·0	+0·1
16	67·7	54·6	63·6	66·8	65·7	54·6	-1·1	+0·6	+0·2	+0·1	+0·2	+0·5
17	69·8	49·0	51·6	62·9	69·0	55·0	-0·2	+0·1	-0·2	-0·6	+0·2	+0·1
18	66·4	45·4	58·2	61·4	66·4	46·9	-1·2	+0·3	0·0	-0·4	-0·3	+0·1
19	51·8	43·2	46·6	50·0	49·1	43·7	-1·2	0·0	-0·2	-1·0	-0·1	+0·1
20	49·8	38·7	...	...	...	...	-1·1	+0·2	...	...	...	...
21	53·0	33·0	47·0	51·7	44·9	42·3	-2·0	+0·7	-0·7	-0·9	-0·2	+0·5
22	51·8	33·9	48·0	48·9	46·0	43·8	-1·1	+0·5	-0·1	-0·3	0·0	0·0
23	55·0	42·1	47·8	48·7	52·6	49·6	-0·1	-0·1	+0·1	-0·2	-0·4	+0·2
24	66·2	44·0	58·1	64·1	65·2	51·5	-1·8	+0·8	-0·5	-0·7	-0·6	+0·5
25	69·1	43·0	59·7	67·1	67·2	55·6	-1·3	+0·6	-0·5	-0·7	-0·1	+0·2
26	55·9	43·3	...	...	...	...	-0·2	+0·2	...	...	...	...
27	54·9	41·8	...	...	...	...	-1·4	+0·2	...	...	...	...
28	55·2	38·3	48·8	50·9	52·3	43·0	-2·1	+0·2	+0·1	-0·1	-1·3	0·0
29	59·7	39·8	53·2	58·3	49·6	46·9	-3·0	+0·6	+0·4	-0·6	-0·2	+0·1
30	61·8	42·5	55·4	60·9	50·3	46·3	-3·2	+0·4	+0·6	0·0	-0·9	+0·1
31	59·7	41·1	48·6	55·8	53·9	48·0	-1·5	+0·7	-0·2	-0·4	+0·1	+0·2
Means	59·3	42·7	52·9	56·5	55·9	48·7	-1·6	+0·5	-0·2	-0·4	-0·2	+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	52·6	38·7	47·8	50·9	50·8	44·9	-1·5	-0·5	-0·1	-0·2	-0·6	-0·1
2	54·6	35·9	48·5	53·3	52·7	48·6	-2·0	-0·5	+0·4	-0·2	+0·2	+0·3
3	59·9	46·4	55·9	52·8	57·8	49·6	-1·0	-0·1	-0·7	+0·2	-0·2	+0·8
4	52·5	43·1	51·6	51·3	50·5	44·4	-2·4	-0·7	-0·3	-0·1	-0·3	+0·7
5	58·8	38·2	47·5	54·8	56·9	53·1	-2·3	-0·5	-0·7	-0·3	0·0	+1·0
6	59·7	45·0	...	...	...	...	-3·0	-0·2	...	...	...	...
7	62·3	40·4	54·6	56·5	60·0	49·7	-2·4	-0·8	-0·5	-1·2	+0·3	+0·7
8	61·5	43·1	58·1	59·5	59·4	51·8	-1·8	-0·4	-0·7	+1·0	-0·2	+0·5
9	58·7	46·1	55·5	56·1	53·9	47·0	-2·6	-0·8	+1·0	-1·0	-0·2	0·0
10	56·7	40·8	50·7	56·0	54·6	46·8	-2·2	+0·4	-1·9	-1·1	+0·8	+1·0
11	59·9	40·1	55·9	57·0	51·4	50·8	-1·1	+0·5	+0·2	-0·4	+0·4	+0·5
12	56·3	47·3	49·7	50·8	53·8	49·6	+0·3	-0·2	+0·1	-0·1	0·0	+0·8
13	63·5	37·3	...	...	...	...	-0·6	-0·9	...	...	...	...
14	67·8	48·3	...	...	...	...	-0·6	+0·2	...	...	...	...
15	67·8	45·0	62·5	65·8	64·6	56·3	-0·8	-0·4	+0·7	+0·1	-0·1	0·0
16	69·5	53·5	64·1	68·7	65·8	54·5	+0·7	-0·5	+0·7	+2·0	+0·3	+0·4
17	70·1	48·2	50·6	62·0	68·2	55·0	+0·1	-0·7	-1·2	-1·5	-0·6	+0·1
18	66·5	44·6	56·5	62·2	65·3	46·5	-1·1	-0·5	-1·7	+0·4	-1·4	-0·3
19	52·1	42·1	46·6	50·9	48·6	43·8	-0·9	-1·1	-0·2	-0·1	-0·6	+0·2
20	49·1	38·0	...	...	...	...	-1·8	-0·5	...	...	...	...
21	53·5	31·2	46·2	52·5	45·0	41·8	-1·5	-1·1	-1·5	-0·1	-0·1	0·0
22	50·5	32·5	46·9	49·0	46·0	43·6	-2·4	-0·9	-1·2	-0·2	0·0	-0·2
23	54·8	41·1	47·2	48·8	52·8	49·5	-0·3	-1·1	-0·5	-0·1	-0·2	+0·1
24	66·5	43·0	57·8	63·2	64·6	51·6	-1·5	-0·2	-0·8	-1·6	-1·2	+0·6
25	68·7	42·3	57·5	65·1	66·6	55·8	-1·7	-0·1	-2·7	-2·7	-0·7	+0·4
26	55·6	42·3	...	...	...	...	-0·5	-0·8	...	...	...	...
27	54·2	41·3	...	...	...	...	-2·1	-0·3	...	...	...	...
28	55·4	37·4	49·9	50·7	52·8	43·7	-1·9	-0·7	+1·2	-0·3	-0·8	+0·7
29	59·7	39·0	52·0	57·8	49·7	46·8	-3·0	-0·2	-0·8	-1·1	-0·1	0·0
30	61·7	41·7	55·6	60·0	49·8	46·0	-3·3	-0·4	+0·8	-0·9	-1·4	-0·2
31	59·5	40·4	48·6	54·6	53·8	48·0	-1·7	0·0	-0·2	-1·6	0·0	+0·2
Means	59·4	41·8	52·7	56·4	55·8	48·8	-1·5	-0·5	-0·4	-0·4	-0·3	+0·3

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

JUNE.

Days of the Month.	Readings of Thermometers in 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	61·7	44·3	58·7	59·7	60·5	53·1	−1·6	+1·0	+0·9	−0·1	+0·4	+0·1
2	64·0	52·1	58·1	60·8	62·1	54·4	−1·0	+0·5	0·0	−0·7	−0·4	+0·2
3	66·0	50·0	...	...	...	...	−2·1	+0·8	...	...	...	...
4	67·0	53·2	57·8	59·2	65·1	57·8	−1·1	+1·0	0·0	−0·8	−0·4	+0·1
5	65·0	52·0	58·4	63·3	61·9	55·1	−2·7	+0·8	−0·1	−0·7	−0·9	+0·3
6	56·1	47·9	51·8	55·5	55·2	49·6	−1·2	−1·4	−0·6	−0·6	−0·3	−0·1
7	61·4	48·0	49·9	54·9	61·4	53·9	−1·6	−0·1	−0·2	−1·1	−0·6	+0·1
8	63·3	47·3	56·5	57·5	60·5	54·7	−1·2	+1·0	+0·5	+0·2	−0·2	0·0
9	65·0	53·1	56·6	64·9	61·1	55·6	−2·9	+0·5	−0·1	−0·1	−0·5	0·0
10	63·3	52·4	...	...	...	...	−2·0	+1·0	...	...	...	...
11	60·4	47·9	53·9	56·9	50·1	48·8	−1·6	+0·6	−0·4	−0·4	−0·4	0·0
12	60·5	45·7	53·6	59·7	57·6	54·9	−2·4	+0·6	−0·6	+0·4	+0·1	+0·3
13	56·7	49·3	53·8	53·8	54·8	52·9	−1·0	+0·8	−0·1	−0·4	−0·5	+0·3
14	70·8	47·1	58·0	68·1	68·5	62·0	−2·0	+1·1	−0·4	−0·3	−0·3	+0·4
15	71·8	51·1	64·3	70·8	67·0	60·3	−2·2	+0·3	−0·1	−0·7	−0·7	+0·1
16	67·8	53·8	61·9	67·8	66·3	55·9	−2·6	+0·6	−0·7	+0·1	+0·7	+0·9
17	68·0	50·4	...	...	...	...	−1·7	+0·8	...	...	...	...
18	62·0	50·0	60·9	58·6	54·1	52·8	−2·6	+0·6	−0·1	+0·1	−0·6	0·0
19	65·4	48·6	59·7	61·9	63·1	53·8	−2·4	+0·3	+0·1	−0·6	0·0	+0·1
20	61·2	53·3	58·2	60·3	58·6	58·1	−1·1	+0·8	+0·2	−0·2	−0·2	+0·2
21	73·3	48·8	60·4	68·8	72·7	58·7	−2·1	+0·9	+0·6	0·0	−0·5	+0·1
22	72·2	50·6	61·4	67·4	69·6	58·8	−3·1	+0·4	−0·2	−0·2	−0·4	+0·2
23	70·8	56·1	65·9	70·7	66·1	60·7	−1·9	+0·4	−0·3	−0·3	−0·3	0·0
24	65·9	58·1	...	...	...	...	−2·2	+0·3	...	...	...	...
25	76·4	49·4	65·1	72·5	75·5	65·9	−3·2	+0·9	+0·7	+0·3	+0·2	+0·1
26	71·0	58·1	69·6	68·3	68·8	58·1	−1·8	+0·5	+0·2	−0·6	0·0	+0·3
27	72·0	50·8	63·4	69·6	71·0	55·9	−1·6	+0·6	+0·5	−0·3	0·0	+0·2
28	80·0	51·6	70·3	76·7	79·4	58·7	−1·1	+0·7	+0·7	+0·3	−0·4	0·0
29	78·9	50·4	66·2	76·0	77·2	60·0	−1·4	+0·2	0·0	−1·1	−0·3	+0·2
30	80·5	50·8	73·6	80·3	79·7	62·1	−1·6	+0·8	+1·1	−1·3	−0·3	+0·1
Means	67·3	50·7	60·3	64·8	64·9	56·6	−1·9	+0·6	+0·1	−0·3	−0·3	+0·2

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	62·5	43·9	58·6	61·0	60·9	53·1	−0·8	+0·6	+0·8	+1·2	+0·8	+0·1
2	63·5	51·4	59·4	61·1	61·8	54·6	−1·5	−0·2	+1·3	−0·4	−0·7	+0·4
3	67·3	49·0	...	...	...	...	−0·8	−0·2	...	...	...	...
4	67·8	52·2	57·8	59·2	65·7	58·1	−0·3	0·0	0·0	−0·8	+0·2	+0·4
5	65·8	50·8	59·4	62·7	62·5	54·8	−1·9	−0·4	+0·9	−1·3	−0·3	0·0
6	56·4	48·2	51·7	55·7	55·3	48·9	−0·9	−1·1	−0·7	−0·4	−0·2	−0·8
7	61·6	47·1	50·4	56·1	61·2	54·7	−1·4	−1·0	+0·3	+0·1	−0·8	+0·9
8	64·7	46·2	56·6	57·5	60·6	55·0	+0·2	−0·1	+0·6	+0·2	−0·1	+0·3
9	66·4	53·0	57·8	64·8	61·3	55·6	−1·5	+0·4	+1·1	−0·2	−0·3	0·0
10	63·8	51·3	...	...	...	...	−1·5	−0·1	...	...	...	...
11	60·5	46·9	54·1	57·4	50·2	48·5	−1·5	−0·4	−0·2	+0·1	−0·3	−0·3
12	60·7	44·8	53·8	59·2	57·8	55·0	−2·2	−0·3	−0·4	−0·1	+0·3	+0·4
13	57·2	48·4	54·3	53·8	55·3	52·8	−0·5	−0·1	+0·4	−0·4	0·0	+0·2
14	71·1	46·5	58·5	67·9	68·6	62·6	−1·7	+0·5	+0·1	−0·5	−0·2	+1·0
15	71·6	50·2	65·4	71·6	67·9	60·6	−2·4	−0·6	+1·0	+0·1	+0·2	+0·4
16	67·5	53·1	62·7	67·4	66·8	55·2	−2·9	−0·1	+0·1	−0·3	+1·2	+0·2
17	68·5	49·5	...	...	...	...	−1·2	−0·1	...	...	...	...
18	62·5	49·1	60·5	59·4	54·6	52·6	−2·1	−0·3	−0·5	+0·9	−0·1	−0·2
19	66·8	48·3	58·6	62·5	64·2	54·2	−1·0	0·0	−1·0	0·0	+1·1	+0·5
20	62·1	52·5	59·2	61·2	58·8	58·1	−0·2	0·0	+1·2	+0·7	0·0	+0·2
21	75·2	48·2	60·1	68·8	73·0	58·8	−0·2	+0·3	+0·3	0·0	−0·2	+0·2
22	73·7	49·9	63·2	69·5	71·6	58·6	−1·6	−0·3	+1·6	+1·9	+1·6	0·0
23	70·7	55·1	66·8	70·4	66·2	60·7	−2·0	−0·6	+0·6	−0·6	−0·2	0·0
24	66·5	57·5	...	...	...	...	−1·6	−0·3	...	...	...	...
25	78·5	48·0	64·8	71·8	75·9	66·1	−1·1	−0·5	+0·4	−0·4	+0·6	+0·3
26	72·5	57·2	69·3	68·4	68·6	57·8	−0·3	−0·4	−0·1	−0·5	−0·2	0·0
27	71·7	50·1	61·7	68·3	70·0	55·6	−1·9	−0·1	−1·2	−1·6	−1·0	−0·1
28	80·2	50·3	69·0	75·2	79·5	58·8	−0·9	−0·6	−0·6	−1·2	−0·3	+0·1
29	79·1	50·0	63·9	76·6	76·8	59·8	−1·2	−0·2	−2·3	−0·5	−0·7	0·0
30	80·4	50·1	72·0	78·5	79·8	62·1	−1·7	+0·1	−0·5	−3·1	−0·2	+0·1
Means	67·9	50·0	60·4	64·8	65·2	56·6	−1·3	−0·2	+0·1	−0·3	0·0	+0·2

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. 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	80·8	54·7	...	...	...	...	−1·2	+0·6	...	...	...	...
2	80·0	58·4	71·5	79·8	76·8	65·1	−3·0	+0·9	+0·5	+1·0	+0·2	+0·2
3	71·0	59·5	63·8	67·7	69·9	61·0	−2·0	+0·4	+0·1	−0·1	+0·1	+0·2
4	75·0	50·6	65·0	69·7	71·3	62·0	−1·2	+0·4	+0·6	−0·4	+0·5	+0·5
5	78·0	52·4	72·0	75·7	77·4	62·9	−1·6	+0·5	+0·3	+0·5	−0·6	+0·2
6	84·7	54·9	77·7	82·6	82·6	65·9	−1·3	+1·3	+0·3	−0·3	−0·2	+0·7
7	73·5	55·5	64·0	70·8	68·5	55·5	−3·0	+0·1	+0·2	−0·4	−2·0	−0·1
8	71·3	50·6	...	...	...	...	−2·7	+0·4	...	...	...	...
9	72·0	53·5	64·9	62·6	71·5	59·7	−1·6	+0·2	−0·3	+0·3	+0·3	+0·2
10	64·0	55·6	60·3	64·0	62·5	56·1	−3·9	+0·5	0·0	+0·1	−0·1	−0·1
11	69·8	54·3	58·9	63·9	66·0	56·2	−1·9	+0·3	−0·1	0·0	+0·1	+0·1
12	67·8	52·4	60·1	61·6	59·9	58·1	−2·4	+0·5	−0·7	−0·5	−0·1	+0·2
13	65·0	53·3	60·6	63·8	61·3	55·9	−0·8	+0·7	+0·5	+0·1	−0·4	+0·3
14	68·8	49·6	61·0	66·7	64·9	57·3	−2·4	+0·6	+0·5	+0·1	+0·3	+0·1
15	62·5	52·4	...	...	...	...	−0·6	+0·3	...	...	...	...
16	61·2	52·2	58·6	59·7	59·7	60·4	−0·5	+0·7	+0·4	0·0	−0·2	0·0
17	67·4	56·6	61·5	65·4	66·7	58·7	−2·3	+0·4	−0·1	−0·2	−0·1	−0·1
18	66·5	53·6	58·3	61·2	62·5	58·1	−1·9	+0·4	+0·3	−0·3	−0·1	0·0
19	67·9	54·8	61·2	61·3	67·9	57·6	−1·4	+0·5	+0·2	+0·5	+0·2	+0·1
20	67·2	51·2	63·8	65·1	64·0	56·9	−2·1	+0·8	+0·1	0·0	−0·6	+0·1
21	71·0	55·2	59·6	66·7	68·5	60·9	−1·0	+0·7	+0·3	−0·3	−1·1	+0·1
22	70·2	53·1	...	...	...	...	−1·8	+0·6	...	...	...	...
23	62·9	57·5	58·0	59·6	61·1	57·8	+0·4	+0·3	−0·2	−0·1	−0·4	−0·2
24	71·3	56·8	59·9	63·8	70·8	62·9	−1·0	+0·4	+0·1	−0·4	0·0	+0·1
25	76·0	57·9	68·5	74·1	66·6	57·9	−1·2	+0·5	+0·2	+0·4	−1·2	+0·3
26	73·2	55·3	65·1	68·7	72·7	60·5	−2·5	+0·9	−0·2	+0·6	−1·4	0·0
27	76·5	52·4	65·4	73·6	76·0	62·3	−2·9	+0·6	+1·4	+0·2	+1·2	0·0
28	77·2	53·6	70·5	76·0	73·6	62·7	−0·9	+0·5	+0·6	+0·2	0·0	0·0
29	77·0	58·5	...	...	...	...	−1·0	+1·1	...	...	...	...
30	66·9	57·9	58·8	61·3	65·3	58·2	−0·9	+0·1	−0·3	−0·1	−0·3	−0·1
31	75·5	56·4	65·1	72·5	74·5	62·9	−1·4	+1·0	+0·3	+1·0	+0·4	+0·1
Means	71·4	54·5	63·6	67·6	68·6	59·8	−1·7	+0·6	+0·2	+0·1	−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	80·7	54·2	...	...	...	...	−1·3	+0·1	...	...	...	...
2	81·4	57·4	72·5	79·5	75·8	64·9	−1·6	−0·1	+1·5	+0·7	−0·8	0·0
3	71·5	58·3	65·6	68·9	70·0	60·9	−1·5	−0·8	+1·9	+1·1	+0·2	+0·1
4	74·6	49·6	64·9	69·4	72·0	62·7	−1·6	−0·6	+0·5	−0·7	+1·2	+1·2
5	77·6	53·0	72·8	75·0	76·3	62·9	−2·0	+1·1	+1·1	−0·2	−1·7	+0·2
6	84·2	53·9	77·1	81·5	83·0	65·5	−1·8	+0·3	−0·3	−1·4	+0·2	+0·3
7	73·0	54·4	64·7	70·2	69·2	55·1	−3·5	−1·0	+0·9	−1·0	−1·3	−0·5
8	71·7	49·4	...	...	...	...	−2·3	−0·8	...	...	...	...
9	72·8	53·1	65·0	63·2	71·3	58·5	−0·8	−0·2	−0·2	+0·9	+0·1	−1·0
10	66·5	54·3	60·8	65·6	63·0	55·8	−1·4	−0·8	+0·5	+1·7	+0·4	−0·4
11	70·2	53·2	57·7	63·8	65·6	55·6	−1·5	−0·8	−1·3	−0·1	−0·3	−0·5
12	67·8	51·4	60·3	61·8	59·9	58·0	−2·4	−0·5	−0·5	−0·3	−0·1	+0·1
13	65·9	52·2	61·6	63·5	61·8	56·0	+0·1	−0·4	+1·5	−0·2	+0·1	+0·4
14	69·9	49·1	62·1	66·5	64·8	57·6	−1·3	+0·1	+1·6	−0·1	+0·2	+0·4
15	63·1	51·4	...	...	...	...	0·0	−0·7	...	...	...	...
16	62·0	50·8	59·2	59·9	59·6	60·4	+0·3	−0·7	+1·0	+0·2	−0·3	0·0
17	68·1	56·2	61·7	65·8	66·6	58·7	−1·6	0·0	+0·1	+0·2	−0·2	−0·1
18	66·7	53·1	58·8	62·0	62·8	58·5	−1·7	−0·1	+0·8	+0·5	+0·2	+0·4
19	67·9	53·5	61·5	61·0	67·5	57·8	−1·4	−0·8	+0·5	+0·2	−0·2	+0·3
20	67·5	49·8	64·2	66·1	64·1	57·4	−1·8	−0·6	+0·5	+1·0	−0·5	+0·6
21	70·3	54·2	59·8	66·6	68·8	60·8	−1·7	−0·3	+0·5	−0·4	−0·8	0·0
22	71·2	51·9	...	...	...	...	−0·8	−0·6	...	...	...	...
23	62·7	56·8	58·4	59·7	61·3	57·8	+0·2	−0·4	+0·2	0·0	−0·2	−0·2
24	72·0	56·3	59·9	63·8	71·6	62·9	−0·3	−0·1	+0·1	−0·4	+0·8	+0·1
25	75·7	57·7	69·1	73·8	67·9	58·0	−1·5	+0·3	+0·8	+0·1	+0·1	+0·4
26	75·1	53·9	64·7	69·6	72·8	60·5	−0·6	−0·5	−0·6	+1·5	−1·3	0·0
27	78·9	51·2	65·2	74·1	75·7	63·3	−0·5	−0·6	+1·2	+0·7	+0·9	+1·0
28	77·6	53·2	69·6	75·8	73·6	62·7	−0·5	+0·1	−0·3	0·0	0·0	0·0
29	76·5	57·4	...	...	...	...	−1·5	0·0	...	...	...	...
30	66·6	57·2	59·1	61·7	65·8	58·7	−1·2	−0·6	0·0	+0·3	+0·2	+0·4
31	76·6	55·4	65·5	73·6	74·2	62·9	−0·3	0·0	+0·7	+2·1	+0·1	+0·1
Means	71·8	53·7	63·9	67·8	68·7	59·8	−1·2	−0·3	+0·5	+0·2	−0·1	+0·1

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

AUGUST.

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.						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		Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°	°
1	66.7	58.0	63.0	63.1	62.9	60.6	−1.1	+0.5	−0.1	−0.1	−0.6	+0.1	1	67.5	57.1	63.9	64.2	62.8	60.5	−0.3	−0.4	+0.8	+1.0	−0.7	0.0
2	68.0	55.7	63.1	61.9	63.9	56.7	−1.9	+0.5	+0.2	−0.6	0.0	+0.3	2	68.6	54.4	64.1	63.9	63.9	56.8	−1.3	−0.8	+1.2	+1.4	0.0	+0.4
3	69.3	52.6	62.9	67.0	69.2	59.6	−1.5	+0.5	+0.1	−0.7	+0.3	+0.2	3	69.8	51.3	62.0	67.3	69.0	59.1	−1.0	−0.8	−0.8	−0.4	+0.1	−0.3
4	69.4	54.8	65.1	65.9	63.1	61.9	−2.5	+0.4	−0.6	+0.4	−0.6	+0.1	4	71.5	53.9	64.9	66.5	63.4	61.8	−0.4	−0.5	−0.8	+1.0	−0.3	0.0
5	70.0	57.4	...	...	...	...	−1.0	+0.3	...	...	...	...	5	70.0	57.2	...	...	...	...	−1.0	+0.1	...	...	...	...
6	67.5	57.4	...	...	...	...	−0.7	+0.7	...	...	...	...	6	67.8	56.6	...	...	...	...	−0.4	−0.1	...	...	...	...
7	72.8	56.9	65.7	70.6	68.8	59.6	−1.3	+1.0	−0.1	+0.3	−0.1	0.0	7	72.9	55.2	65.8	70.5	69.7	58.3	−1.2	−0.7	0.0	+0.2	+0.8	−1.3
8	67.8	57.7	65.3	63.9	65.0	58.9	−1.2	+0.3	+0.8	+0.1	0.0	−0.9	8	68.7	57.1	65.3	65.1	64.8	59.8	−0.3	−0.3	+0.8	+1.3	−0.2	0.0
9	69.9	54.2	62.4	63.9	65.6	60.5	−2.0	+0.2	+0.4	−0.1	−0.6	+0.3	9	70.9	53.5	62.8	64.5	65.7	60.6	−1.0	−0.5	+0.8	+0.5	−0.5	+0.4
10	68.0	54.7	59.5	62.1	65.1	54.9	−2.2	+0.5	0.0	−0.4	+0.1	+0.1	10	68.1	54.1	59.8	62.4	65.8	54.8	−2.1	−0.1	+0.3	−0.1	+0.8	0.0
11	65.1	52.2	56.7	64.7	63.4	57.6	−1.8	+0.3	+0.1	−0.1	−0.3	+0.5	11	65.0	51.4	56.8	64.6	64.3	56.8	−1.9	−0.5	+0.2	−0.2	+0.6	−0.3
12	67.2	54.4	...	...	...	...	−2.1	+0.3	...	...	...	...	12	67.4	53.4	...	...	...	...	−1.9	−0.7	...	...	...	...
13	68.5	56.7	60.6	63.1	66.5	60.6	−1.2	+0.3	+0.3	−0.3	−0.7	−0.2	13	68.8	56.4	60.1	63.2	66.6	61.0	−0.9	0.0	−0.2	−0.2	−0.6	+0.2
14	78.8	56.7	66.4	75.7	75.6	61.9	−1.7	+0.3	−0.1	−0.4	−1.0	−0.2	14	78.4	56.4	66.5	75.8	75.1	62.0	−2.1	0.0	0.0	−0.3	−1.5	−0.1
15	68.5	56.3	62.9	64.2	66.1	56.5	−2.1	+0.6	−0.2	−1.1	−0.5	+0.1	15	68.2	55.2	62.6	64.4	65.7	56.6	−2.4	−0.5	−0.5	−0.9	−0.9	+0.2
16	61.0	52.6	58.1	59.7	56.0	56.5	−1.0	+0.3	+0.3	+0.5	+0.2	−0.1	16	60.8	51.6	58.1	59.4	56.1	56.8	−1.2	−0.7	+0.3	+0.2	+0.3	+0.2
17	61.1	45.7	58.5	58.1	59.8	55.2	−1.4	+0.5	−0.3	0.0	0.0	+0.3	17	61.3	44.1	58.4	57.8	59.8	55.3	−1.2	−1.1	−0.4	−0.3	0.0	+0.4
18	65.5	52.0	58.2	63.8	60.8	57.1	−1.5	+0.4	+0.3	−0.3	−0.7	+0.4	18	66.0	51.2	57.8	63.8	60.8	57.2	−1.0	−0.4	−0.1	−0.3	−0.7	+0.5
19	63.5	51.0	...	...	...	...	−1.5	+0.6	...	...	...	...	19	64.2	50.2	...	...	...	...	−0.8	−0.2	...	...	...	...
20	64.0	54.5	57.9	60.3	60.8	55.3	−1.7	+0.3	−0.1	−0.5	+0.1	−0.2	20	63.8	54.1	57.8	61.0	60.9	56.0	−1.9	−0.1	−0.2	+0.2	+0.2	+0.5
21	62.1	44.6	60.4	60.7	59.7	59.9	−1.4	+0.4	+1.9	−0.4	−0.2	−0.1	21	63.2	43.1	60.8	62.3	60.0	60.1	−0.3	−1.1	+2.3	+1.2	+0.1	+0.1
22	71.4	52.7	59.8	67.8	68.9	57.5	−1.8	+0.6	+0.2	+0.9	−0.7	+0.5	22	71.5	52.1	60.5	68.5	69.8	57.5	−1.7	0.0	+0.9	+1.6	+0.2	+0.5
23	58.1	54.3	58.0	57.6	56.9	57.9	−0.5	+1.0	0.0	−0.1	−0.2	+0.1	23	58.1	53.4	57.9	57.6	56.5	57.7	−0.5	+0.1	−0.1	−0.1	−0.6	−0.1
24	63.0	57.3	59.7	62.9	62.1	57.3	−1.4	0.0	−0.1	−0.6	+0.1	−0.3	24	62.8	56.5	59.5	62.8	62.1	57.2	−1.6	−0.8	−0.3	−0.7	+0.1	−0.4
25	60.2	55.9	56.9	58.6	60.0	58.2	−0.5	+0.3	−0.1	−0.4	−0.3	−0.1	25	60.3	55.2	56.7	59.1	60.0	58.3	−0.4	−0.4	−0.3	+0.1	−0.3	0.0
26	77.2	58.1	...	...	...	...	−1.8	+0.6	...	...	...	...	26	77.7	57.4	...	...	...	...	−1.3	−0.1	...	...	...	...
27	65.0	53.7	59.0	60.9	61.7	58.5	−0.8	+0.8	−0.5	−0.4	0.0	+0.3	27	66.4	53.1	59.2	60.8	61.8	58.3	+0.6	+0.2	−0.3	−0.5	+0.1	+0.1
28	67.8	55.5	58.2	64.7	65.4	60.0	−0.5	+0.4	−0.1	+0.2	−0.5	+0.1	28	68.3	55.1	58.8	64.8	65.8	60.6	0.0	0.0	+0.5	+0.3	−0.1	+0.7
29	68.1	51.4	59.5	65.5	67.9	57.3	−1.1	+0.8	+0.7	−0.3	−0.6	+0.3	29	68.2	50.7	58.8	65.6	67.8	57.8	−1.0	+0.1	0.0	−0.2	−0.7	+0.8
30	74.6	48.2	61.1	70.8	72.6	58.6	−0.5	+0.7	−0.3	+0.1	+0.7	+0.8	30	75.5	47.9	62.5	70.6	72.2	58.1	+0.4	+0.4	+1.1	−0.1	+0.3	+0.3
31	75.1	50.5	59.8	67.2	75.1	61.5	−2.0	+1.0	0.0	+1.0	+0.3	+0.5	31	76.3	49.9	58.8	66.8	74.8	61.8	−0.8	+0.4	−1.0	+0.6	0.0	+0.8
Means	67.6	54.0	60.7	64.0	64.7	58.5	−1.4	+0.5	+0.1	−0.1	−0.2	+0.1	Means	68.0	53.2	60.8	64.4	64.8	58.5	−1.0	−0.3	+0.2	+0.2	−0.1	+0.1

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

SEPTEMBER.

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	69.5	54.9	62.3	67.7	69.3	57.9	−0.8	+0.7	+0.7	+0.7	−0.2	+0.1
2	68.9	50.7	...	...	...	...	0.0	+0.7	...	...	...	...
3	57.3	51.6	53.9	51.6	53.3	51.8	+0.4	+0.1	+0.1	−0.2	−0.5	+0.1
4	62.3	45.0	56.6	61.7	59.4	50.7	−1.4	+0.8	+0.9	+0.2	+0.2	+0.1
5	60.7	41.6	51.1	56.9	59.4	51.9	−0.5	+0.2	0.0	+0.4	−0.1	0.0
6	58.1	41.1	54.7	56.5	58.1	50.9	−1.8	+0.7	+0.6	+0.5	−0.4	0.0
7	59.0	43.3	52.3	56.7	57.5	52.1	−1.0	+0.1	0.0	0.0	0.0	+0.4
8	60.0	47.6	49.7	59.7	57.9	52.5	−1.2	+0.1	−0.1	+0.2	+0.1	+0.1
9	60.0	49.6	...	...	...	...	−1.3	+0.2	...	...	...	...
10	63.4	48.3	53.0	61.6	63.4	50.3	−1.0	+0.9	+0.1	−1.1	−0.3	+0.1
11	66.5	44.4	53.3	62.4	66.5	52.4	−0.3	+0.3	+0.3	+0.8	+0.4	+0.5
12	65.2	45.6	57.4	61.7	64.6	51.1	−0.6	+0.4	−0.3	+0.4	−0.5	+0.1
13	60.7	47.4	54.9	60.3	59.7	51.5	−1.6	+0.3	+0.1	−0.2	−0.3	−0.1
14	63.1	50.8	56.7	61.3	61.7	52.3	−0.9	+0.3	+0.5	−0.7	−0.1	−0.2
15	58.7	52.0	57.1	58.7	58.3	55.7	−2.3	+0.8	+0.4	+0.5	−0.2	+0.1
16	61.0	52.4	...	...	...	...	−1.0	+0.5	...	...	...	...
17	59.2	52.5	56.7	58.7	58.1	55.9	−0.6	+0.3	0.0	−0.3	−0.1	−0.1
18	66.1	53.4	57.2	61.7	66.1	53.5	−2.1	+1.2	−0.1	0.0	−0.6	+0.5
19	68.0	50.2	53.3	63.8	64.1	57.1	0.0	+1.1	+0.2	+0.3	+0.3	+0.2
20	62.8	53.4	55.9	61.5	61.7	57.3	−0.2	+1.0	−0.1	−0.1	+0.3	0.0
21	57.8	53.9	55.1	57.6	56.8	54.1	−1.1	+0.3	−0.3	−0.2	−0.2	0.0
22	56.3	49.2	53.5	56.3	55.5	53.8	−1.0	+0.4	−0.2	−0.3	−0.2	0.0
23	64.4	53.5	...	...	...	...	−1.9	+0.3	...	...	...	...
24	62.1	55.5	58.7	59.6	59.7	57.6	−0.5	+0.9	−0.1	0.0	−0.1	0.0
25	59.0	55.9	57.7	58.8	58.9	58.2	−0.7	+0.3	−0.3	−0.2	−0.2	−0.1
26	58.7	50.6	53.5	53.5	53.2	51.1	+0.4	+0.3	−0.2	−0.1	+0.2	+0.1
27	58.9	41.8	49.2	58.0	57.2	45.1	0.0	+0.4	−0.1	+0.3	−0.3	+0.5
28	57.2	33.2	45.7	57.2	53.5	45.9	−0.5	−0.1	−0.2	+0.4	+0.3	+0.3
29	57.5	38.3	49.5	54.8	55.6	47.9	−0.8	+0.3	+0.2	0.0	−0.2	+0.3
30	59.2	44.3	...	...	...	...	−1.1	+0.5	...	...	...	...
Means	61.4	48.4	54.4	59.1	59.6	52.7	−0.8	+0.5	+0.1	+0.1	−0.1	+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	69.2	54.2	60.6	66.7	69.2	57.6	−1.1	0.0	−1.0	−0.3	−0.3	−0.2
2	68.5	50.1	...	...	...	...	−0.4	+0.1	...	...	...	...
3	56.6	49.9	53.8	51.6	53.5	51.5	−0.3	−1.6	0.0	−0.2	−0.3	−0.2
4	62.5	44.0	55.2	61.4	60.6	50.7	−1.2	−0.2	−0.5	−0.1	+1.4	+0.1
5	60.5	40.2	51.5	56.8	59.5	52.0	−0.7	−1.2	+0.4	+0.3	0.0	+0.1
6	58.6	40.2	55.0	56.2	55.6	50.7	−1.3	−0.2	+0.9	+0.2	−2.9	−0.2
7	58.9	42.2	52.4	56.3	58.0	52.0	−1.1	−1.0	+0.1	−0.4	+0.5	+0.3
8	59.7	46.9	50.1	59.0	58.0	52.6	−1.5	−0.6	+0.3	−0.5	+0.2	+0.2
9	60.9	48.5	...	...	...	...	−0.4	−0.9	...	...	...	...
10	63.6	47.3	52.9	61.1	63.6	51.6	−0.8	−0.1	0.0	−1.6	−0.1	+1.4
11	66.5	43.3	53.3	62.3	66.5	53.9	−0.3	−0.8	+0.3	+0.7	+0.4	+2.0
12	65.5	45.3	58.1	60.2	65.4	51.3	−0.3	+0.1	+0.4	−1.1	+0.3	+0.3
13	60.8	46.8	54.8	60.5	60.1	51.5	−1.5	−0.3	0.0	0.0	+0.1	−0.1
14	62.7	50.5	56.2	61.1	61.7	53.0	−1.3	0.0	0.0	−0.9	−0.1	+0.5
15	59.8	51.4	57.0	58.0	58.4	55.8	−1.2	+0.2	+0.3	−0.2	−0.1	+0.2
16	61.5	52.0	...	...	...	...	−0.5	+0.1	...	...	...	...
17	59.4	52.1	56.7	58.7	58.1	55.9	−0.4	−0.1	0.0	−0.3	−0.1	−0.1
18	67.5	51.8	57.4	61.7	66.9	53.6	−0.7	−0.4	+0.1	0.0	+0.2	+0.6
19	67.5	49.3	53.1	63.1	63.8	57.6	−0.5	+0.2	0.0	−0.4	0.0	+0.7
20	62.5	53.4	55.9	61.9	61.5	57.6	−0.5	+1.0	−0.1	+0.3	+0.1	+0.3
21	58.8	53.4	55.3	58.1	56.8	54.2	−0.1	−0.2	−0.1	+0.3	−0.2	+0.1
22	57.1	48.3	54.0	56.4	55.8	53.8	−0.2	−0.5	+0.3	−0.2	+0.1	0.0
23	65.5	53.2	...	...	...	...	−0.8	0.0	...	...	...	...
24	62.5	54.5	58.9	59.2	59.9	57.6	−0.1	−0.1	+0.1	−0.4	+0.1	0.0
25	59.2	55.3	58.0	58.8	58.9	57.1	−0.5	−0.3	0.0	−0.2	−0.2	−1.2
26	57.8	50.2	53.0	52.1	53.1	52.0	−0.5	−0.1	−0.7	−1.5	+0.1	+1.0
27	57.8	41.2	49.0	57.8	57.0	45.5	−1.1	−0.2	−0.3	+0.1	−0.5	+0.9
28	56.1	33.8	45.9	56.1	53.6	45.8	−1.6	+0.5	0.0	−0.7	+0.4	+0.2
29	56.2	37.2	48.0	54.5	55.7	48.0	−2.1	−0.8	−1.3	−0.3	−0.1	+0.4
30	59.8	43.7	...	...	...	...	−0.5	−0.1	...	...	...	...
Means	61.4	47.7	54.2	58.8	59.6	52.9	−0.8	−0.2	0.0	−0.3	0.0	+0.3

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

OCTOBER.

Days of the Month.	Readings of Thermometers in 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	58·9	43·5	50·8	56·7	55·3	51·3	−1·2	+1·0	−0·3	−0·5	+0·3	−0·1
2	60·0	48·7	53·7	58·2	56·0	49·2	−2·0	−0·3	−0·5	−0·3	0·0	+0·2
3	57·5	48·6	53·1	56·9	55·6	52·6	−1·2	+0·4	−0·6	−0·1	−0·2	+0·1
4	58·9	49·3	51·2	55·2	55·8	53·9	−0·3	+0·3	−0·4	−0·5	+0·1	+0·1
5	58·0	51·6	54·7	57·4	53·7	51·9	−1·0	+0·7	−0·5	−0·4	+0·1	−0·1
6	58·0	50·3	53·1	55·2	56·9	53·9	+0·5	+0·3	−0·5	−1·1	−0·2	+0·1
7	57·0	51·6	...	...	...	...	−0·3	+0·3	...	...	...	...
8	55·4	44·7	48·7	51·6	54·9	48·5	−1·6	+0·1	−0·1	0·0	+0·1	−0·2
9	50·8	48·3	48·4	49·9	50·3	50·0	−0·4	+0·2	−0·2	−0·4	−0·3	−0·2
10	59·0	49·6	54·4	58·1	57·5	57·7	−0·8	+0·3	−0·1	−0·5	−0·1	−0·1
11	61·0	56·1	58·1	59·0	60·7	56·1	−1·0	−0·1	+0·1	−0·7	−0·3	−0·1
12	59·9	48·1	53·1	56·1	59·8	48·1	−1·0	+0·4	0·0	−0·4	−0·6	0·0
13	61·6	48·1	49·7	59·4	61·1	55·9	−0·3	+0·4	0·0	0·0	+0·2	+0·2
14	56·2	43·1	...	...	...	...	0·0	−0·5	...	...	...	...
15	53·1	38·3	44·0	51·9	49·9	44·0	−1·0	0·0	0·0	−0·3	+0·1	0·0
16	50·7	39·6	44·7	49·8	50·7	41·9	−0·7	−0·4	−0·1	+0·6	−0·3	+0·3
17	50·2	31·3	37·5	46·6	48·7	44·7	−0·7	+0·8	+0·2	+0·2	+0·7	−0·1
18	45·7	39·6	43·9	45·4	45·6	40·0	0·0	+0·7	+0·1	+0·1	−0·1	+0·2
19	49·7	39·4	45·6	47·2	49·4	45·7	−0·2	+0·5	−0·2	+0·1	+0·1	−0·1
20	48·3	40·9	43·9	46·1	47·0	44·3	+0·1	+0·9	−0·1	+0·1	0·0	−0·8
21	51·0	41·9	...	...	...	...	−1·0	−0·1	...	...	...	...
22	48·6	35·2	40·7	47·3	48·6	42·3	−0·2	+0·2	−0·4	−0·3	0·0	+0·1
23	53·3	39·1	47·3	50·1	48·5	52·8	+0·2	+0·3	−0·2	−0·4	0·0	−0·3
24	59·9	51·7	57·6	55·7	57·9	53·7	−0·2	+0·2	+0·1	−0·1	0·0	0·0
25	57·6	52·0	55·6	57·6	57·5	52·2	−0·7	+0·3	−0·2	0·0	0·0	+0·4
26	60·6	50·4	53·6	59·9	56·9	52·3	−0·6	+0·2	+0·1	−0·8	−0·1	+0·1
27	57·0	50·7	55·3	54·5	54·0	50·8	−0·3	+0·3	−0·3	+0·4	−0·2	0·0
28	55·0	47·5	...	...	...	...	−0·9	+0·4	...	...	...	...
29	56·0	45·9	50·4	55·0	54·3	49·9	−1·0	+0·2	−0·1	0·0	+0·3	+0·1
30	51·9	48·1	48·9	51·8	50·6	49·6	−0·1	+0·3	+0·1	−0·1	0·0	−0·9
31	60·1	49·3	55·6	58·4	59·7	56·7	−0·8	+0·3	0·0	−0·4	0·0	+0·1
Means	55·5	45·9	50·1	53·7	54·0	50·0	−0·6	+0·3	−0·2	−0·2	0·0	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	59·2	42·4	51·4	57·6	55·7	51·5	−0·9	−0·1	+0·3	+0·4	+0·7	+0·1
2	60·7	47·8	54·0	58·1	56·2	48·8	−1·3	−1·2	−0·2	−0·4	+0·2	−0·2
3	58·5	47·6	53·8	57·9	55·4	52·8	−0·2	−0·6	+0·1	+0·9	−0·4	+0·3
4	57·8	49·1	51·6	54·8	55·7	54·0	−1·4	+0·1	0·0	−0·9	0·0	+0·2
5	58·5	50·9	55·1	57·8	53·7	51·8	−0·5	0·0	−0·1	0·0	+0·1	−0·2
6	58·5	49·2	52·8	56·1	56·9	53·8	+1·0	−0·8	−0·8	−0·2	−0·2	0·0
7	57·5	51·2	...	...	...	...	+0·2	−0·1	...	...	...	...
8	56·6	44·2	48·7	51·4	53·8	49·0	−0·4	−0·4	−0·1	−0·2	−1·0	+0·3
9	51·0	48·0	48·4	50·2	50·2	50·1	−0·2	−0·1	−0·2	−0·1	−0·4	−0·1
10	59·5	47·7	54·9	58·4	57·6	57·8	−0·3	−1·6	+0·4	−0·2	0·0	0·0
11	61·5	56·1	58·6	59·5	60·8	56·1	−0·5	−0·1	+0·6	−0·2	−0·2	−0·1
12	60·7	47·8	53·1	56·9	60·0	48·3	−0·2	+0·1	0·0	+0·4	−0·4	+0·2
13	61·7	47·4	49·5	59·6	61·0	56·5	−0·2	−0·3	−0·2	+0·2	+0·1	+0·8
14	56·5	43·1	...	...	...	...	+0·3	−0·5	...	...	...	...
15	53·0	37·4	43·8	50·8	49·8	44·1	−1·1	−0·9	−0·2	−1·4	0·0	+0·1
16	50·3	38·1	44·8	49·1	50·3	41·8	−1·1	−1·9	0·0	−0·1	−0·7	+0·2
17	52·3	31·2	37·6	46·2	48·8	44·8	+1·4	+0·7	+0·3	−0·2	+0·8	0·0
18	45·7	39·9	43·8	45·5	45·6	41·8	0·0	+1·0	0·0	+0·2	−0·1	+2·0
19	50·2	39·4	45·6	46·8	49·3	45·6	+0·3	+0·5	−0·2	−0·3	0·0	−0·2
20	48·1	39·3	44·1	45·8	46·8	44·3	−0·1	−0·7	+0·1	−0·2	−0·2	−0·8
21	51·1	42·0	...	...	...	...	−0·9	0·0	...	...	...	...
22	48·6	34·2	40·9	47·0	48·5	42·0	−0·2	−0·8	−0·2	−0·6	−0·1	−0·2
23	52·9	37·9	47·6	50·5	48·6	52·9	−0·2	−0·9	+0·1	0·0	+0·1	−0·2
24	60·4	51·4	57·8	56·0	58·1	53·9	+0·3	−0·1	+0·3	+0·2	+0·2	+0·2
25	58·5	51·5	56·3	57·6	57·4	52·0	+0·2	−0·2	+0·5	0·0	−0·1	+0·2
26	61·3	50·0	54·8	60·8	56·9	52·7	+0·1	−0·2	+1·3	+0·1	−0·1	+0·5
27	57·3	50·1	55·8	53·7	54·5	50·7	0·0	−0·3	+0·2	−0·4	+0·3	−0·1
28	56·3	47·2	...	...	...	...	+0·4	+0·1	...	...	...	...
29	56·7	45·1	51·6	55·6	54·7	50·7	−0·3	−0·6	+1·1	+0·6	+0·7	+0·9
30	52·2	47·4	49·3	51·8	50·7	49·5	+0·2	−0·4	+0·5	−0·1	+0·1	−1·0
31	60·9	48·9	56·0	59·5	60·0	58·0	0·0	−0·1	+0·4	+0·7	+0·3	+1·4
Means	55·9	45·3	50·4	53·9	54·0	50·2	−0·2	−0·3	+0·1	−0·1	0·0	+0·2

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

NOVEMBER.

Days of the Month.	Readings of Thermometers in 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	63.4	54.5	56.9	62.0	59.3	56.1	−1.5	+0.3	−0.2	−0.5	−0.3	+0.4
2	59.6	54.8	57.4	59.2	57.6	57.4	−0.3	+0.4	+0.1	0.0	+0.1	0.0
3	61.1	53.4	56.8	61.1	58.7	54.8	−1.1	+0.3	0.0	−0.1	+0.1	+0.1
4	57.4	50.8	...	...	...	...	−0.4	+0.6	...	...	...	...
5	58.0	50.8	55.6	56.8	56.2	53.6	−1.5	−0.7	−0.1	0.0	−0.2	+0.2
6	55.5	40.6	45.8	53.2	55.1	43.9	−1.5	+0.1	0.0	−1.1	+0.3	−0.1
7	57.1	42.7	54.7	56.6	54.9	49.9	−0.6	+0.7	0.0	0.0	−0.1	0.0
8	51.0	43.3	46.3	49.6	49.9	43.3	−1.3	+0.7	−0.2	−0.2	+0.1	+0.3
9	53.3	41.7	44.7	50.2	50.7	53.3	−0.2	+0.2	−0.1	−0.1	0.0	−0.2
10	56.0	45.6	51.9	55.2	52.9	47.0	−1.9	+0.4	0.0	−1.4	−0.1	−0.1
11	50.7	42.1	...	...	...	...	0.0	+0.1	...	...	...	...
12	55.2	43.5	47.2	54.7	53.7	43.6	−0.3	−0.4	−0.3	+0.1	−1.0	−0.2
13	49.1	42.1	44.3	47.7	48.1	46.2	−0.9	+0.3	−0.2	−0.8	+0.1	−0.2
14	53.1	45.3	51.7	52.3	52.2	45.6	0.0	−0.1	0.0	0.0	−0.2	−0.2
15	48.9	42.5	43.6	44.6	48.9	43.2	−0.8	−0.1	−0.3	−0.2	+0.2	+0.1
16	51.9	42.2	46.6	50.9	49.6	46.2	−1.9	+0.3	+0.6	−1.7	−0.1	+0.1
17	52.8	41.2	49.1	51.6	51.1	41.7	−1.4	+0.8	0.0	−0.2	+0.2	+0.5
18	52.5	41.2	...	...	...	...	−1.5	+0.5	...	...	...	...
19	53.5	37.1	38.2	51.9	52.6	44.5	−0.8	0.0	−0.3	−0.8	+0.1	0.0
20	54.8	43.0	49.9	54.6	52.7	50.3	−1.2	+0.2	+0.3	−0.4	+0.1	−0.3
21	51.1	35.6	36.0	42.9	45.0	38.1	+0.1	−0.5	−0.5	−1.0	0.0	−0.4
22	50.0	35.4	42.7	49.5	47.6	40.0	−0.9	+0.8	−0.5	−0.3	0.0	+0.2
23	44.1	30.9	38.8	42.6	43.0	38.2	−0.7	−0.2	0.0	−0.7	0.0	+0.1
24	49.8	36.4	39.1	48.7	48.4	41.6	−0.6	+1.0	+0.5	−0.6	−0.1	+0.1
25	47.0	37.9	...	...	...	...	+0.5	+0.3	...	...	...	...
26	40.9	38.0	39.1	39.8	39.0	39.2	+0.4	+0.2	0.0	−0.1	0.0	−0.2
27	42.0	39.0	41.8	41.3	41.7	41.8	0.0	−0.1	+1.0	−0.1	−0.1	+0.2
28	42.7	39.8	39.9	41.5	41.6	40.0	+0.4	+0.6	0.0	−0.3	−0.2	0.0
29	48.1	34.0	40.1	46.2	47.7	47.6	+0.3	+0.7	−0.2	−0.2	+0.1	0.0
30	48.0	35.7	37.2	43.1	43.8	42.4	+0.3	+0.7	+0.1	−0.5	+0.1	−0.2
Means	52.0	42.0	46.0	50.3	50.1	45.7	−0.6	+0.3	0.0	−0.4	0.0	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	64.5	54.2	57.8	62.6	60.8	56.3	−0.4	0.0	+0.7	+0.1	+1.2	+0.6
2	59.8	54.9	57.7	59.0	57.6	57.8	−0.1	+0.5	+0.4	−0.2	+0.1	+0.4
3	62.4	53.4	57.8	61.2	58.6	55.7	+0.2	+0.3	+1.0	0.0	0.0	+1.0
4	58.5	51.0	...	...	...	...	+0.7	+0.8	...	...	...	...
5	59.3	50.6	56.3	57.1	56.1	53.3	−0.2	−0.9	+0.6	+0.3	−0.3	−0.1
6	56.6	40.1	45.0	53.0	55.8	44.7	−0.4	−0.4	−0.8	−1.3	+1.0	+0.7
7	57.5	43.2	55.0	56.6	54.8	50.3	−0.2	+1.2	+0.3	0.0	−0.2	+0.4
8	50.8	42.1	46.5	49.6	49.7	43.6	−1.5	−0.5	0.0	−0.2	−0.1	+0.6
9	53.2	41.1	45.5	51.2	50.7	53.2	−0.3	−0.4	+0.7	+0.9	0.0	−0.3
10	56.2	45.1	51.7	55.5	52.8	46.5	−1.7	−0.1	−0.2	−1.1	−0.2	−0.6
11	50.3	41.0	...	...	...	...	−0.4	−1.0	...	...	...	...
12	55.5	42.1	47.1	54.3	54.0	43.0	0.0	−1.8	−0.4	−0.3	−0.7	−0.8
13	49.2	42.2	44.4	47.7	48.0	46.7	−0.8	+0.4	−0.1	−0.8	0.0	+0.3
14	52.5	45.0	51.9	52.2	52.1	45.5	−0.6	−0.4	+0.2	−0.1	−0.3	−0.3
15	49.0	41.3	42.1	43.1	48.9	44.6	−0.7	−1.3	−1.8	−1.7	+0.2	+1.5
16	53.2	41.9	48.0	52.4	49.7	46.6	−0.6	0.0	+2.0	−0.2	0.0	+0.5
17	53.9	39.9	49.8	51.7	51.0	41.0	−0.3	−0.5	+0.7	−0.1	+0.1	−0.2
18	54.0	40.1	...	...	...	...	0.0	−0.6	...	...	...	...
19	55.2	37.0	38.4	53.3	52.5	44.9	+0.9	−0.1	−0.1	+0.6	0.0	+0.4
20	55.5	43.2	50.2	54.7	52.8	51.0	−0.5	+0.4	+0.6	−0.3	+0.2	+0.4
21	51.1	35.2	36.1	42.9	44.8	39.8	+0.1	−0.9	−0.4	−1.0	−0.2	+1.3
22	51.5	35.2	43.5	49.6	47.5	41.0	+0.6	+0.6	+0.3	−0.2	−0.1	+1.2
23	44.2	30.2	38.7	43.4	43.0	38.2	−0.6	−0.9	−0.1	+0.1	0.0	+0.1
24	49.9	36.1	39.7	49.9	48.9	41.3	−0.5	+0.7	+1.1	+0.6	+0.4	−0.2
25	46.8	36.6	...	...	...	...	+0.3	−1.0	...	...	...	...
26	40.6	37.4	39.1	39.8	39.1	39.5	+0.1	−0.4	0.0	−0.1	+0.1	+0.1
27	42.1	39.0	40.9	41.4	41.8	41.7	+0.1	−0.1	+0.1	0.0	0.0	+0.1
28	42.2	39.1	39.8	41.6	41.5	40.0	−0.1	−0.1	−0.1	−0.2	−0.3	0.0
29	47.8	33.0	40.1	46.2	47.4	47.8	0.0	−0.3	−0.2	−0.2	−0.2	+0.2
30	47.8	35.2	37.5	43.6	43.8	42.7	+0.1	+0.2	+0.4	0.0	+0.1	+0.1
Means	52.4	41.5	46.2	50.5	50.1	46.0	−0.2	−0.2	+0.2	−0.2	0.0	+0.3

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

DECEMBER.

Days of the Month.	Readings of Thermometers in 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	43.0	32.8	33.4	40.0	39.7	34.1	−2.0	−0.2	+0.2	−1.2	−0.1	+0.3
2	44.0	30.8	...	...	...	...	+0.2	−0.4	...	...	...	...
3	46.0	39.4	41.9	46.0	44.6	39.9	−1.9	+0.2	+0.2	−1.0	+0.3	+0.1
4	40.4	29.8	30.8	32.9	34.7	38.1	+0.1	−0.5	−0.2	−1.0	−0.2	0.0
5	41.9	37.8	39.0	41.3	41.9	41.0	0.0	−0.1	−0.5	−0.4	+0.1	−0.1
6	42.2	31.2	33.0	36.8	40.3	40.5	+1.2	−0.2	−0.4	0.0	−0.3	−0.1
7	48.8	36.0	42.9	47.9	47.8	47.2	+0.2	+0.6	+0.1	+0.3	0.0	−0.3
8	47.7	40.2	42.6	44.8	45.6	40.3	+0.4	+0.8	+0.1	−0.1	−0.1	0.0
9	42.2	31.7	...	...	...	...	−0.3	−0.2	...	...	...	...
10	47.0	41.8	44.1	46.8	46.5	44.0	−0.3	0.0	0.0	−0.1	0.0	+0.1
11	47.6	40.0	44.6	46.7	47.1	43.6	−0.7	+0.6	0.0	−1.0	+0.1	0.0
12	50.7	42.6	46.9	50.6	49.0	44.7	−0.1	+0.4	−0.1	0.0	0.0	−0.1
13	50.8	43.6	48.2	49.6	49.9	49.9	+0.1	+0.4	+0.1	0.0	−0.1	+0.1
14	52.7	48.1	50.6	50.9	50.0	52.7	−0.1	+0.2	0.0	0.0	−0.3	−0.1
15	53.0	40.1	42.9	45.2	45.1	40.1	+0.1	+0.2	0.0	−0.4	0.0	+0.2
16	50.5	39.8	...	...	...	...	+0.8	0.0	...	...	...	...
17	51.3	37.1	40.7	44.9	47.6	51.1	+0.2	0.0	−0.1	0.0	0.0	0.0
18	51.8	41.8	51.1	47.1	45.7	42.2	+0.1	+0.5	+0.2	−0.5	−0.2	+0.2
19	45.3	40.2	41.1	45.0	43.6	43.7	+0.1	+0.1	−0.4	+0.2	−0.9	+0.2
20	44.0	40.2	41.2	42.8	43.1	40.4	+0.5	+0.3	+0.1	−0.1	+0.1	−0.1
21	48.2	31.9	36.5	40.7	44.8	48.1	0.0	+0.1	−0.4	0.0	0.0	−0.2
22	51.7	42.2	46.9	46.9	45.9	42.3	+0.1	+0.1	0.0	−0.4	−0.1	+0.2
23	45.6	36.9	...	...	...	...	+0.4	+0.5	...	...	...	...
24	49.8	44.1	47.6	49.7	48.9	49.5	−0.2	−0.1	−0.1	+0.1	+0.1	0.0
25	49.9	45.7	...	...	...	...	+0.3	+0.2	...	...	...	...
26	47.4	44.6	...	...	...	...	0.0	+0.2	...	...	...	...
27	46.0	36.3	38.1	41.9	42.5	38.6	0.0	+0.3	+0.2	−0.8	−0.2	+0.4
28	44.8	31.3	32.0	39.2	42.1	44.5	+0.6	−0.3	0.0	−0.4	−0.2	0.0
29	46.7	35.9	38.3	41.4	41.8	37.3	+0.4	−0.1	0.0	−0.2	+0.1	−0.3
30	39.0	32.0	...	...	...	...	+1.7	0.0	...	...	...	...
31	36.0	28.1	30.8	34.0	35.6	32.1	+0.1	−0.1	+0.1	−0.1	−0.2	0.0
Means	46.6	37.9	41.1	43.9	44.3	42.7	+0.1	+0.1	0.0	−0.3	−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	44.7	33.0	35.4	42.6	39.6	34.4	−0.3	0.0	+2.2	+1.4	−0.2	+0.6
2	43.7	30.4	...	...	...	...	−0.1	−0.8	...	...	...	...
3	47.6	38.2	41.8	47.0	44.6	39.8	−0.3	−1.0	+0.1	0.0	+0.3	0.0
4	40.6	29.8	30.8	33.1	34.8	38.2	+0.3	−0.5	−0.2	−0.8	−0.1	+0.1
5	42.1	37.3	39.4	41.7	42.1	41.0	+0.2	−0.6	−0.1	0.0	+0.3	−0.1
6	41.6	31.1	33.0	37.3	40.8	41.0	+0.6	−0.3	−0.4	+0.5	+0.2	+0.4
7	49.2	37.0	44.0	49.0	48.7	48.0	+0.6	+1.6	+1.2	+1.4	+0.9	+0.5
8	48.4	39.7	42.6	45.4	45.5	40.3	+1.1	+0.3	+0.1	+0.5	−0.2	0.0
9	43.1	32.2	...	...	...	...	+0.6	+0.3	...	...	...	...
10	48.0	42.1	44.9	47.1	46.7	44.6	+0.7	+0.3	+0.8	+0.2	+0.2	+0.7
11	48.2	39.2	44.8	46.8	47.0	43.9	−0.1	−0.2	+0.2	−0.9	0.0	+0.3
12	50.7	42.9	47.6	50.7	48.8	44.6	−0.1	+0.7	+0.6	+0.1	−0.2	−0.2
13	50.4	43.1	48.3	49.6	49.8	49.9	−0.3	−0.1	+0.2	0.0	−0.2	+0.1
14	52.8	47.8	50.6	50.9	50.1	52.8	0.0	−0.1	0.0	0.0	−0.2	0.0
15	52.8	38.9	42.7	45.3	44.8	39.8	−0.1	−1.0	−0.2	−0.3	−0.3	−0.1
16	49.9	38.3	...	...	...	...	+0.2	−1.5	...	...	...	...
17	51.4	36.9	41.4	45.0	47.6	51.4	+0.3	−0.2	+0.6	+0.1	0.0	+0.3
18	51.5	40.9	50.5	47.4	46.1	41.8	−0.2	−0.4	−0.4	−0.2	+0.2	−0.2
19	44.8	39.1	41.3	44.8	43.8	44.1	−0.4	−1.0	−0.2	0.0	−0.7	+0.6
20	44.2	39.9	41.3	42.8	43.1	40.5	+0.7	0.0	+0.2	−0.1	+0.1	0.0
21	49.5	30.9	37.8	40.8	44.8	49.5	+1.3	−0.9	+0.9	+0.1	0.0	+1.2
22	51.4	42.8	46.7	46.9	45.8	42.8	−0.2	+0.7	−0.2	−0.4	−0.2	+0.7
23	45.7	35.7	...	...	...	...	+0.5	−0.7	...	...	...	...
24	50.2	44.5	47.5	49.4	48.7	49.5	+0.2	+0.3	−0.2	−0.2	−0.1	0.0
25	49.6	45.9	...	...	...	...	0.0	+0.4	...	...	...	...
26	47.5	44.3	...	...	...	...	+0.1	−0.1	...	...	...	...
27	45.9	35.1	38.0	42.4	42.5	38.7	−0.1	−0.9	+0.1	−0.3	−0.2	+0.5
28	44.6	30.2	31.9	39.3	42.4	44.6	+0.4	−1.4	−0.1	−0.3	+0.1	+0.1
29	46.2	34.2	38.3	41.5	41.8	36.6	−0.1	−1.8	0.0	−0.1	+0.1	−1.0
30	37.7	31.2	...	...	...	...	+0.4	−0.8	...	...	...	...
31	35.6	27.8	30.8	34.1	35.6	32.1	−0.3	−0.4	+0.1	0.0	−0.2	0.0
Means	46.8	37.4	41.3	44.2	44.4	42.9	+0.2	−0.3	+0.2	0.0	0.0	+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 1894.

[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.				Excess above readings of the Thermometer on ordinary stand, 4 feet above the ground.			
	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	34·9	35·2	35·2	33·3	+0·2	−0·3	0·0	+0·1
2	33·0	33·3	31·6	25·4	+0·1	0·0	−0·2	−0·3
3	24·3	25·9	26·0	25·0	−0·2	−0·1	−0·2	0·0
4	21·1	22·1	21·8	17·3	−0·5	−0·7	−0·2	−0·3
5	11·5	14·3	14·8	16·1	−0·8	−1·2	−0·9	−0·3
6	23·0	25·7	26·8	27·0	−0·4	−0·3	−0·2	0·0
8	26·0	30·0	31·3	32·7	−0·4	−0·4	−0·2	0·0
9	34·9	34·1	34·4	32·4	+0·2	−0·2	−0·2	+0·2
10	39·1	43·6	44·8	43·7	−0·1	+0·1	+0·1	+0·2
11	42·9	48·1	47·7	40·1	+0·1	+0·2	+0·1	+0·1
12	45·1	47·1	47·1	42·1	−0·1	+0·1	+0·3	+0·1
13	42·9	44·2	43·7	41·4	+0·1	−0·3	−0·1	−0·1
15	38·0	41·3	42·8	43·6	+0·1	−0·1	0·0	+0·1
16	43·6	46·7	47·4	47·7	0·0	0·0	−0·2	−0·1
17	48·1	48·2	48·2	43·4	−0·3	−0·2	−0·1	−0·1
18	43·7	43·8	44·6	42·7	0·0	0·0	−0·2	+0·9
19	40·1	44·5	46·1	45·7	−0·1	−0·2	0·0	−0·2
20	44·5	45·0	43·7	42·7	−0·1	−0·1	−0·1	−0·1
22	44·9	44·1	43·1	38·3	−0·1	−0·4	−0·3	−0·1
23	32·1	33·1	32·9	30·1	0·0	+0·3	+0·3	+0·3
24	26·3	33·0	37·1	41·1	−0·1	−0·1	−0·3	−0·1
25	45·1	46·3	46·2	44·8	0·0	−0·2	−0·2	0·0
26	36·1	36·8	36·8	37·0	−0·2	0·0	0·0	+0·2
27	46·0	47·0	46·1	47·1	0·0	−0·3	−0·3	−0·3
29	34·9	39·0	37·9	38·2	−0·2	+0·2	0·0	−0·6
30	40·1	42·2	41·1	38·9	0·0	0·0	+0·1	+0·2
31	42·1	37·3	35·9	33·3	−0·1	−0·2	+0·1	0·0
Means	36·5	38·2	38·3	36·7	−0·1	−0·2	−0·1	0·0

FEBRUARY.

Days of the Month.	Readings of the Wet-bulb Thermometer in Stevenson's Screen, 4 feet above the ground.				Excess above readings of the Thermometer on ordinary stand, 4 feet above the ground.			
	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	32·5	37·8	37·8	45·7	+0·2	+0·3	0·0	+0·2
2	48·8	49·6	48·9	47·5	+0·1	0·0	0·0	−0·1
3	47·0	45·1	43·1	38·9	+0·2	+0·3	+0·1	+0·3
5	47·1	45·1	44·1	41·0	0·0	−0·1	−0·1	0·0
6	43·3	47·1	48·1	48·8	−0·3	0·0	+0·1	+0·2
7	50·3	51·1	51·1	49·5	+0·1	+0·1	+0·4	0·0
8	41·1	43·1	43·3	38·9	+0·2	+0·2	0·0	+0·3
9	44·1	49·2	50·1	42·0	0·0	0·0	+0·3	0·0
10	41·5	43·9	45·0	43·1	0·0	+0·4	+0·4	+0·4
12	38·1	39·4	38·8	36·1	+0·4	−0·1	+0·3	+0·2
13	34·6	38·9	38·2	35·4	+0·2	−0·1	+0·2	+0·5
14	33·5	36·0	35·4	34·9	+0·5	+0·9	+0·4	+0·3
15	38·7	43·0	44·8	41·8	−0·1	−0·2	−0·1	+0·3
16	40·3	42·4	43·4	40·1	−0·1	−0·1	+0·1	+0·3
17	36·1	37·4	38·0	37·3	+0·1	−0·1	−0·1	+0·2
19	30·4	33·1	33·1	29·4	+0·5	−0·2	+0·1	+0·4
20	28·9	33·8	34·1	29·7	+0·6	−0·3	+0·1	0·0
21	29·1	34·1	34·5	29·9	+0·8	0·0	+0·1	+0·3
22	30·1	35·1	35·8	32·5	+0·3	−0·4	+0·3	+0·1
23	31·1	36·4	39·3	41·2	−0·2	−0·6	−0·2	+0·2
24	39·1	42·1	40·5	34·3	+0·1	0·0	0·0	+0·3
26	48·1	50·0	50·8	49·1	0·0	0·0	0·0	+0·1
27	48·3	46·7	45·9	39·1	−0·1	+0·1	−0·1	+0·1
28	37·1	36·6	40·9	37·5	−0·2	0·0	−0·1	+0·1
Means	39·1	41·5	41·9	39·3	+0·1	0·0	+0·1	+0·2

MARCH.

Days of the Month.	Readings of the Wet-bulb Thermometer in Stevenson's Screen, 4 feet above the ground.				Excess above readings of the Thermometer on ordinary stand, 4 feet above the ground.			
	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	43·1	44·1	44·1	45·2	−0·2	−0·4	−0·3	−0·1
2	39·3	43·2	44·1	38·0	+0·3	+0·2	+0·1	+0·4
3	39·1	40·8	42·9	39·0	+0·6	−0·2	0·0	+0·1
5	35·3	41·7	41·8	41·0	+0·2	−0·2	−0·4	−0·1
6	42·4	43·6	42·1	39·3	−0·6	−0·5	−0·3	−0·1
7	38·1	41·3	42·3	41·1	−0·2	−0·3	−0·9	−0·3
8	45·8	47·0	45·7	39·3	−0·3	−0·2	−0·1	+0·1
9	44·9	47·2	46·0	47·1	0·0	−0·6	−0·8	−0·3
10	44·1	46·0	46·8	44·8	−0·6	+0·2	0·0	−0·3
12	40·8	43·5	45·1	44·9	0·0	−0·2	−0·2	0·0
13	38·1	41·1	42·6	38·1	−0·3	+0·6	−0·6	+0·2
14	39·5	41·1	41·1	39·3	−0·2	0·0	−0·6	−0·3
15	39·8	41·0	43·1	38·6	0·0	−0·3	−0·6	+0·1
16	37·4	40·4	41·3	35·9	−0·1	−0·1	+0·3	+0·1
17	36·7	40·8	40·8	35·1	−0·1	+0·3	−0·7	+0·2
19	37·1	43·1	47·0	45·4	−0·1	−0·3	+0·5	+0·1
20	45·9	46·9	46·6	40·2	−0·2	0·0	−0·3	−0·2
21	41·6	46·7	47·3	39·5	−0·2	−0·4	−0·3	−0·1
22	41·3	42·5	41·5	39·1	−0·4	−0·5	0·0	+0·1
24	41·1	48·4	48·1	41·2	−0·2	−0·8	−0·1	+0·1
27	43·9	50·8	52·2	42·2	+0·1	−0·8	+0·4	+0·4
28	39·4	47·5	48·4	40·6	−0·6	−1·1	−0·6	0·0
29	41·5	47·1	51·1	39·9	−0·5	−0·4	−0·4	+0·1
30	47·8	53·1	50·5	46·0	−0·3	+0·6	−0·1	0·0
31	50·5	52·9	53·2	46·1	−0·5	+0·1	+0·4	+0·3
Means	41·4	44·9	45·4	41·1	−0·2	−0·2	−0·2	0·0

APRIL.

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

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	44·3	45·2	45·1	42·8	− 0·4	− 0·3	+ 0·1	+ 0·3
2	46·0	47·9	47·4	46·4	+ 0·1	− 0·2	− 0·1	+ 0·1
3	52·3	51·3	52·9	46·1	− 0·5	+ 0·1	− 0·1	+ 0·7
4	44·3	43·9	44·0	39·0	− 0·7	+ 0·2	− 0·2	+ 0·4
5	42·1	46·4	48·0	47·9	− 0·4	− 0·2	− 0·4	+ 0·1
7	48·4	49·1	50·1	44·3	− 0·1	− 0·6	− 0·1	− 0·2
8	52·2	52·3	51·5	48·3	0·0	+ 0·1	− 0·3	+ 0·1
9	49·3	50·1	49·6	45·8	− 0·3	− 0·6	− 0·2	0·0
10	49·4	51·0	49·7	45·7	− 0·6	− 0·8	− 0·1	+ 0·3
11	50·9	51·0	49·3	49·1	− 0·5	− 0·6	− 0·3	− 0·1
12	46·4	46·4	48·0	44·4	− 0·4	− 0·2	+ 0·2	− 0·2
15	55·8	56·5	54·7	55·5	+ 0·1	0·0	+ 0·1	0·0
16	59·0	60·9	61·7	53·6	+ 0·1	− 0·2	− 0·3	+ 0·1
17	50·6	58·2	63·0	54·0	− 0·3	− 1·1	+ 0·2	+ 0·1
18	53·0	55·9	56·4	44·3	− 0·3	− 0·4	+ 0·4	+ 0·2
19	41·7	43·8	43·0	39·7	+ 0·2	− 0·3	+ 0·2	+ 0·1
21	42·0	44·7	42·1	38·3	− 0·7	− 0·8	0·0	+ 0·5
22	42·2	43·7	43·1	43·0	0·0	0·0	− 0·1	0·0
23	47·1	48·2	49·3	45·6	+ 0·2	− 0·1	− 0·3	+ 0·4
24	52·7	53·1	53·2	46·9	− 0·2	− 0·5	+ 0·4	+ 0·3
25	53·0	55·3	54·9	47·2	− 0·1	− 0·2	+ 0·3	+ 0·4
28	44·0	46·0	47·0	41·5	+ 0·1	+ 0·1	− 1·2	− 0·1
29	48·4	50·1	47·2	44·9	+ 0·6	− 0·5	− 0·6	+ 0·1
30	49·7	51·8	47·7	45·1	+ 0·2	+ 0·3	− 0·9	+ 0·1
31	47·1	51·9	48·9	45·5	− 0·2	+ 0·2	+ 0·1	+ 0·2
Means	48·5	50·2	49·9	45·8	− 0·2	− 0·3	− 0·1	+ 0·2

JUNE.

Days of the Month.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	51·9	53·3	54·3	51·5	+ 0·5	− 0·1	+ 0·2	+ 0·2
2	55·9	55·4	55·9	52·3	0·0	− 0·3	− 0·8	+ 0·1
4	57·1	58·1	61·4	55·3	− 0·3	− 0·7	− 0·7	− 0·3
5	53·0	57·3	56·5	53·0	− 0·5	− 0·1	− 0·7	+ 0·2
6	50·1	52·8	52·1	48·8	− 0·6	− 0·5	− 0·4	− 0·2
7	47·8	49·9	52·4	49·9	− 0·3	− 0·4	− 0·6	+ 0·1
8	52·3	53·3	54·3	52·8	− 0·3	− 0·2	− 0·8	− 0·1
9	54·9	58·3	56·9	54·0	+ 0·1	− 0·5	− 0·8	0·0
11	48·7	51·1	49·4	47·8	− 0·4	− 0·2	− 0·1	0·0
12	49·9	53·0	52·1	51·9	− 0·7	− 0·3	− 0·1	0·0
13	49·9	50·8	50·3	49·6	+ 0·1	− 0·3	− 0·6	0·0
14	54·1	57·0	57·5	57·0	− 0·7	− 0·5	− 0·3	+ 0·2
15	58·1	63·1	61·0	58·0	− 0·5	− 0·1	− 0·7	− 0·1
16	54·9	58·2	57·1	54·7	− 0·1	+ 0·1	+ 0·4	+ 0·3
18	53·1	51·5	52·9	52·1	− 0·4	− 0·1	− 0·1	− 0·1
19	52·4	53·2	53·5	49·8	− 0·5	− 0·5	0·0	0·0
20	56·0	58·1	58·1	57·4	+ 0·1	+ 0·1	− 0·3	− 0·1
21	54·1	59·1	62·0	55·1	+ 0·3	0·0	0·0	+ 0·3
22	59·0	61·4	62·6	56·2	− 0·1	− 0·1	− 0·4	0·0
23	59·3	62·4	60·2	59·2	+ 0·1	− 0·2	− 0·3	0·0
25	57·0	61·5	65·2	61·3	+ 0·8	+ 0·3	+ 0·1	+ 0·1
26	62·5	61·9	61·9	56·1	0·0	− 0·2	0·0	+ 0·3
27	54·4	57·9	61·9	54·1	− 0·5	− 0·3	− 0·1	− 0·1
28	62·1	64·5	66·0	54·1	+ 0·6	+ 0·1	− 0·4	− 0·2
29	58·4	65·7	65·8	56·4	− 0·5	− 0·6	− 0·3	+ 0·1
30	65·3	67·2	64·7	58·2	+ 0·7	− 1·2	− 0·3	− 0·1
Means	55·1	57·5	57·9	54·1	− 0·1	− 0·3	− 0·3	0·0

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	°	°	°	°	°	°	°	°
2	65·4	69·8	69·1	62·1	+ 0·4	+ 1·0	− 0·6	+ 0·2
3	60·0	60·1	61·1	55·3	+ 0·4	+ 0·2	+ 0·1	+ 0·3
4	57·2	59·2	60·1	57·8	+ 0·6	− 0·4	+ 0·3	+ 0·1
5	62·1	62·4	63·3	56·3	+ 0·7	+ 0·3	− 0·7	− 0·4
6	66·0	66·1	66·9	64·1	+ 0·5	0·0	− 0·7	+ 0·2
7	55·9	58·6	56·6	53·1	+ 0·2	0·0	− 1·6	− 0·2
9	61·5	60·9	63·0	57·1	− 0·5	+ 0·1	+ 0·3	− 0·3
10	56·1	57·1	56·1	55·1	− 0·4	+ 0·1	− 0·1	− 0·5
11	55·0	58·0	58·7	53·9	0·0	+ 0·1	+ 0·1	+ 0·1
12	56·2	58·1	57·5	54·9	− 0·3	− 0·8	0·0	0·0
13	56·3	57·0	57·3	54·1	+ 0·4	0·0	− 0·4	+ 0·1
14	56·2	59·2	58·1	54·3	+ 0·2	+ 0·1	+ 1·1	− 0·2
16	56·3	57·4	58·8	58·7	+ 0·2	− 0·3	− 0·3	− 0·1
17	56·4	58·3	58·9	53·5	− 0·1	− 0·2	− 0·5	− 0·3
18	53·7	54·3	55·3	55·0	+ 0·1	− 0·2	− 0·2	0·0
19	56·4	55·4	57·3	55·0	− 0·2	− 0·1	− 0·3	− 0·2
20	57·9	57·3	58·0	54·9	+ 0·3	+ 0·1	− 0·6	+ 0·1
21	59·0	63·1	63·5	59·9	+ 0·1	0·0	− 1·1	+ 0·1
23	57·2	58·2	59·1	57·0	− 0·3	− 0·5	− 0·5	+ 0·1
24	59·0	61·9	66·1	61·6	+ 0·2	− 0·1	− 0·1	+ 0·1
25	64·2	65·3	61·1	55·6	+ 0·4	+ 0·8	− 1·4	+ 0·1
26	60·3	62·0	63·1	58·3	− 0·7	+ 0·4	− 0·9	− 0·2
27	60·6	63·2	64·5	59·1	+ 0·6	− 1·1	+ 0·8	− 1·1
28	63·0	65·6	63·1	61·0	+ 0·1	+ 0·6	− 0·2	− 0·2
30	57·1	57·9	59·1	55·1	− 0·4	+ 0·1	− 0·5	− 0·1
31	59·1	63·8	66·8	61·2	+ 0·1	+ 0·7	+ 0·2	0·0
Means	58·8	60·4	60·9	57·1	+ 0·1	0·0	− 0·3	− 0·1

AUGUST.

Days of the Month.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	59·1	59·6	60·7	58·1	+ 0·1	− 0·1	− 0·5	− 0·2
2	59·5	60·2	58·4	53·9	+ 0·2	− 0·4	− 0·1	− 0·1
3	57·1	56·7	59·5	55·7	+ 0·1	− 0·4	+ 0·2	0·0
4	58·5	58·3	59·1	60·9	− 0·6	+ 0·2	− 0·6	+ 0·1
7	61·0	60·1	59·8	56·2	− 0·4	+ 0·1	0·0	− 0·1
8	60·1	61·9	60·4	58·3	+ 0·3	− 0·2	0·0	− 0·2
9	58·1	57·1	58·8	55·3	+ 0·5	0·0	− 0·7	− 0·2
10	57·1	56·1	57·1	54·3	− 0·4	0·0	+ 0·1	+ 0·1
11	53·1	56·4	57·0	55·7	+ 0·1	− 0·6	− 0·6	+ 0·2
13	53·6	55·3	55·3	54·7	− 0·1	− 0·1	− 0·5	− 0·1
14	63·1	66·0	68·1	59·1	0·0	− 0·5	+ 0·1	− 0·4
15	55·3	56·5	57·8	54·3	− 0·8	− 0·8	− 0·4	− 0·4
16	55·2	57·7	55·3	53·9	+ 0·1	+ 0·3	− 0·3	− 0·1
17	53·5	52·5	53·2	52·4	+ 0·3	− 0·1	− 0·6	− 0·1
18	54·0	56·3	59·0	53·9	+ 0·1	− 0·7	− 0·7	0·0
20	51·3	52·3	51·1	50·1	− 0·3	− 0·5	+ 0·4	− 0·1
21	53·2	55·0	55·9	58·3	+ 0·9	− 0·3	− 0·2	0·0
22	55·8	59·5	60·1	56·3	+ 0·1	+ 0·4	− 0·5	+ 0·1
23	57·5	57·3	56·6	57·7	0·0	0·0	− 0·1	+ 0·1
24	58·9	60·2	59·9	57·0	− 0·1	− 0·7	+ 0·1	0·0
25	56·4	57·5	58·1	56·8	− 0·2	− 0·1	− 0·2	+ 0·1
27	58·1	59·1	59·7	57·9	− 0·6	− 0·5	− 0·3	+ 0·1
28	57·2	60·4	60·9	59·0	0·0	− 0·7	− 0·7	+ 0·1
29	55·2	58·8	60·5	56·1	+ 0·1	− 0·8	0·0	0·0
30	57·9	63·1	65·1	58·3	+ 0·2	− 0·3	+ 0·6	+ 0·7
31	58·4	62·4	64·4	58·9	+ 0·3	+ 0·6	+ 0·6	+ 0·3
Means	56·9	58·3	58·9	56·3	0·0	− 0·2	− 0·2	0·0

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.				Excess above readings of the Thermometer on ordinary stand, 4 feet above the ground.			
	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	57·1	60·1	61·4	55·3	+ 0·7	0·0	− 0·3	0·0
3	52·3	49·8	50·6	48·4	+ 0·1	− 0·2	− 0·5	+ 0·3
4	51·5	53·4	52·3	49·1	0·0	− 0·5	+ 0·3	+ 0·1
5	48·9	50·4	51·4	48·6	+ 0·3	+ 0·3	+ 0·1	+ 0·1
6	51·0	51·5	53·0	49·1	0·0	+ 0·4	− 0·2	+ 0·2
7	49·1	52·1	51·5	49·1	0·0	+ 0·2	+ 0·1	+ 0·4
8	48·9	51·1	49·9	49·1	0·0	− 0·5	+ 0·1	+ 0·1
10	50·9	54·1	55·1	48·7	+ 0·2	− 0·2	+ 0·3	+ 0·1
11	51·1	56·0	58·1	51·4	− 0·2	+ 0·3	+ 0·6	+ 0·5
12	55·7	57·2	57·8	49·1	− 0·2	− 0·1	− 0·5	+ 0·3
13	50·1	53·2	51·9	48·1	− 0·5	− 0·3	− 0·3	0·0
14	53·0	56·1	56·2	51·4	+ 0·5	− 0·5	− 0·4	− 0·1
15	54·9	56·0	56·1	53·9	+ 0·1	+ 0·4	− 0·1	+ 0·2
17	53·3	54·7	54·9	53·7	− 0·1	− 0·3	+ 0·1	+ 0·1
18	55·9	58·1	60·1	53·0	0·0	− 0·4	− 0·1	+ 0·4
19	53·1	59·9	61·0	56·9	+ 0·3	+ 0·3	+ 0·3	+ 0·2
20	55·3	59·1	59·9	56·3	− 0·1	− 0·2	+ 0·3	0·0
21	53·8	56·1	55·9	53·7	0·0	0·0	0·0	+ 0·1
22	52·0	53·9	52·4	52·1	− 0·1	− 0·3	− 0·2	0·0
24	57·9	57·9	58·1	55·5	+ 0·1	− 0·1	− 0·1	− 0·1
25	57·3	58·1	58·4	58·0	− 0·3	− 0·2	− 0·2	− 0·1
26	52·6	51·9	51·5	49·3	− 0·4	− 0·1	− 0·1	− 0·1
27	46·4	50·7	50·0	43·7	− 0·5	+ 0·3	− 0·2	+ 0·2
28	44·2	49·9	48·5	43·8	+ 0·3	− 0·3	+ 0·2	+ 0·3
29	45·6	47·9	49·7	46·4	− 0·4	− 0·4	− 0·5	+ 0·1
Means	52·1	54·4	54·6	50·9	0·0	− 0·1	− 0·1	+ 0·1

OCTOBER.

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

NOVEMBER.

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

DECEMBER.

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

(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.

1894.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	52·59	51·76	50·91	50·09	49·55	49·47	49·74	50·30	51·21	52·01	52·55	52·57
2	52·56	51·76	50·88	50·07	49·53	49·47	49·75	50·33	51·24	52·05	52·55	52·57
3	52·53	51·73	50·84	50·05	49·54	49·47	49·75	50·35	51·24	52·07	52·56	52·62
4	52·49	51·68	50·82	50·08	49·52	49·48	49·77	50·40	51·27	52·07	52·56	52·58
5	52·44	51·67	50·79	50·00	49·51	49·49	49·78	50·41	51·31	52·11	52·58	52·60
6	52·45	51·64	50·76	49·97	49·50	49·50	49·80	50·42	51·34	52·15	52·57	52·58
7	52·43	51·61	50·73	49·97	49·50	49·50	49·81	50·46	51·36	52·15	52·58	52·60
8	52·41	51·56	50·71	49·95	49·50	49·50	49·83	50·50	51·40	52·16	52·58	52·56
9	52·40	51·55	50·69	49·92	49·49	49·52	49·83	50·52	51·43	52·16	52·58	52·56
10	52·42	51·51	50·66	49·91	49·47	49·53	49·85	50·55	51·46	52·20	52·61	52·57
11	52·37	51·47	50·63	49·89	49·47	49·53	49·86	50·57	51·49	52·23	52·60	52·58
12	52·37	51·38	50·60	49·86	49·46	49·53	49·89	50·60	51·53	52·25	52·61	52·60
13	52·33	51·39	50·60	49·88	49·44	49·54	49·89	50·63	51·55	52·27	52·62	52·57
14	52·28	51·35	50·52	49·86	49·46	49·55	49·90	50·67	51·60	52·26	52·62	52·56
15	52·26	51·34	50·50	49·80	49·47	49·57	49·91	50·70	51·61	52·30	52·62	52·55
16	52·26	51·31	50·45	49·78	49·46	49·57	49·94	50·70	51·64	52·29	52·65	52·53
17	52·23	51·26	50·42	49·75	49·45	49·57	49·97	50·74	51·67	52·30	52·67	52·52
18	52·20	51·24	50·36	49·75	49·46	49·59	49·98	50·79	51·69	52·32	52·66	52·51
19	52·16	51·20	50·36	49·72	49·45	49·60	50·00	50·80	51·72	52·34	52·66	52·48
20	52·14	51·16	50·35	49·69	49·44	49·61	50·02	50·82	51·74	52·35	52·67	52·49
21	52·11	51·17	50·33	49·66	49·45	49·62	50·00	50·85	51·76	52·36	52·65	52·45
22	52·08	51·10	50·30	49·65	49·44	49·65	50·05	50·90	51·79	52·38	52·66	52·46
23	52·03	51·07	50·28	49·65	49·44	49·65	50·08	50·93	51·78	52·42	52·65	52·43
24	52·00	51·05	50·25	49·68	49·46	49·65	50·11	50·96	51·85	52·43	52·66	52·44
25	52·00	51·02	50·25	49·63	49·46	49·66	50·14	51·00	51·88	52·45	52·65	52·43
26	51·95	51·01	50·23	49·61	49·45	49·68	50·15	51·04	51·88	52·47	52·65	52·41
27	51·95	50·96	50·21	49·60	49·45	49·69	50·20	51·05	51·91	52·46	52·65	52·37
28	51·90	50·92	50·17	49·58	49·45	49·70	50·22	51·06	51·93	52·47	52·60	52·36
29	51·86		50·15	49·58	49·45	49·70	50·25	51·10	51·96	52·47	52·59	52·33
30	51·85		50·13	49·56	49·46	49·75	50·25	51·15	52·00	52·50	52·56	52·31
31	51·80		50·11		49·46		50·27	51·16		52·52		52·30
Means	52·22	51·35	50·48	49·81	49·47	49·58	49·97	50·72	51·61	52·29	52·61	52·50

The mean of the twelve monthly values is 51°·05.

(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.

1894.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	50·70	48·41	47·60	47·00	48·30	49·79	51·52	54·38	55·99	55·91	54·89	53·17
2	50·62	48·40	47·54	47·01	48·32	49·84	51·62	54·42	56·01	55·95	54·80	53·08
3	50·52	48·38	47·50	47·00	48·40	49·88	51·63	54·52	55·94	55·93	54·77	53·06
4	50·46	48·32	47·45	47·03	48·44	49·90	51·75	54·60	56·00	55·89	54·69	52·92
5	50·36	48·27	47·41	47·01	48·50	49·98	51·90	54·67	56·02	55·88	54·62	52·87
6	50·31	48·22	47·40	47·02	48·53	50·00	52·01	54·69	56·02	55·87	54·53	52·80
7	50·23	48·20	47·35	47·10	48·60	50·01	52·07	54·81	56·04	55·82	54·51	52·70
8	50·09	48·17	47·32	47·10	48·61	50·09	52·18	54·87	56·10	55·77	54·42	52·64
9	50·11	48·11	47·30	47·11	48·70	50·13	52·30	54·92	56·10	55·72	54·39	52·52
10	50·09	48·10	47·28	47·16	48·70	50·19	52·39	55·00	56·12	55·77	54·37	52·50

(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.*

1894.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
11	50·00	48·06	47·20	47·20	48·77	50·21	52·52	55·05	56·13	55·72	54·30	52·40
12	49·90	48·00	47·20	47·22	48·80	50·28	52·63	55·11	56·18	55·68	54·30	52·33
13	49·80	47·99	47·19	47·26	48·88	50·30	52·78	55·13	56·17	55·67	54·20	52·25
14	49·68	47·95	47·14	47·29	48·90	50·39	52·90	55·29	56·18	55·61	54·18	52·17
15	49·58	47·93	47·10	47·36	48·94	50·49	52·94	55·28	56·12	55·57	54·08	52·05
16	49·49	47·93	47·11	47·40	49·00	50·50	53·08	55·30	56·14	55·50	54·08	51·95
17	49·40	47·90	47·10	47·46	49·01	50·51	53·20	55·38	56·13	55·48	54·07	51·85
18	49·29	47·90	47·09	47·51	49·08	50·59	53·30	55·44	56·12	55·42	54·01	51·77
19	49·19	47·89	47·09	47·57	49·10	50·66	53·40	55·49	56·11	55·41	53·97	51·68
20	49·10	47·83	47·09	47·61	49·10	50·72	53·50	55·52	56·10	55·38	53·94	51·60
21	49·02	47·82	47·09	47·70	49·20	50·80	53·60	55·60	56·07	55·36	53·81	51·50
22	48·96	47·81	47·05	47·76	49·21	50·89	53·72	55·68	56·04	55·31	53·79	51·47
23	48·87	47·80	47·06	47·82	49·29	50·91	53·77	55·72	56·09	55·30	53·71	51·39
24	48·78	47·79	47·03	47·90	49·38	50·99	53·82	55·76	56·04	55·30	53·69	51·34
25	48·76	47·73	47·02	47·93	49·46	51·04	53·93	55·80	56·00	55·27	53·60	51·26
26	48·70	47·73	47·07	48·01	49·47	51·10	54·00	55·88	55·99	55·23	53·54	51·20
27	48·70	47·69	47·01	48·10	49·50	51·19	54·08	55·89	55·98	55·13	53·45	51·11
28	48·60	47·61	47·01	48·12	49·58	51·28	54·15	55·88	55·95	55·08	53·41	51·07
29	48·54		47·00	48·19	49·62	51·32	54·23	55·90	55·94	55·03	53·34	50·98
30	48·53		47·00	48·25	49·70	51·42	54·24	55·95	55·96	54·98	53·26	50·89
31	48·50		47·00		49·72		54·30	55·98		54·93		50·83
Means	49·51	48·00	47·19	47·47	48·99	50·51	53·01	55·29	56·06	55·51	54·09	51·98

The mean of the twelve monthly values is 51°·47.

(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.

1894.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	48·01	46·03	45·41	46·72	50·33	52·22	56·31	59·46	59·68	57·82	54·29	51·36
2	47·90	46·01	45·49	46·89	50·40	52·26	56·60	59·54	59·63	57·70	54·30	51·20
3	47·73	46·01	45·51	47·03	50·49	52·31	56·79	59·69	59·59	57·58	54·32	51·10
4	47·59	45·98	45·55	47·20	50·51	52·31	57·09	59·72	59·62	57·40	54·33	50·86
5	47·38	46·01	45·60	47·38	50·52	52·44	57·38	59·81	59·61	57·30	54·40	50·73
6	47·20	46·03	45·60	47·50	50·58	52·53	57·63	59·80	59·59	57·20	54·40	50·58
7	47·00	46·10	45·62	47·68	50·60	52·71	57·72	59·91	59·50	57·12	54·42	50·50
8	46·80	46·18	45·69	47·81	50·62	52·90	57·91	59·97	59·42	57·03	54·40	50·30
9	46·60	46·29	45·69	47·93	50·68	53·03	58·06	59·98	59·30	56·94	54·37	50·11
10	46·46	46·38	45·70	48·12	50·70	53·11	58·22	60·00	59·16	56·92	54·32	50·06
11	46·11	46·50	45·73	48·31	50·80	53·20	58·39	60·06	59·00	56·88	54·20	49·98
12	45·91	46·51	45·80	48·51	50·88	53·32	58·61	60·09	58·92	56·78	54·11	49·87
13	45·77	46·59	45·90	48·69	50·96	53·40	58·88	60·05	58·80	56·72	53·63	49·80
14	45·70	46·65	45·99	48·90	51·01	53·51	58·88	60·08	58·70	56·66	53·70	49·72
15	45·58	46·68	46·01	49·08	51·07	53·61	58·80	60·09	58·59	56·61	53·24	49·50

(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.*

1894.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
16	45·58	46·64	46·10	49·28	51·13	53·61	58·81	60·03	58·53	56·59	53·30	49·50
17	45·62	46·56	46·11	49·42	51·21	53·68	58·86	60·10	58·47	56·50	53·30	49·48
18	45·71	46·50	46·11	49·58	51·40	53·81	58·80	60·13	58·40	56·40	53·20	49·51
19	45·86	46·41	46·11	49·63	51·52	54·00	58·77	60·10	58·38	56·28	53·10	49·44
20	46·00	46·32	46·10	49·71	51·70	54·11	58·80	60·03	58·33	56·04	53·02	49·49
21	46·10	46·26	46·08	49·81	51·90	54·30	58·77	60·00	58·28	55·90	52·87	49·43
22	46·18	46·13	46·01	49·85	52·00	54·43	58·80	59·98	58·24	55·69	52·78	49·37
23	46·19	46·01	46·04	49·91	52·10	54·58	58·80	59·92	58·30	55·53	52·61	49·30
24	46·26	45·82	46·04	49·96	52·16	54·70	58·83	59·82	58·22	55·37	52·51	49·21
25	46·31	45·62	46·13	50·00	52·13	54·89	58·92	59·80	58·19	55·17	52·36	49·13
26	46·30	45·61	46·20	50·02	52·07	55·10	58·94	59·82	58·12	55·01	52·18	49·10
27	46·21	45·41	46·29	50·10	52·01	55·30	59·01	59·71	58·10	54·81	52·00	49·01
28	46·18	45·39	46·38	50·11	52·10	55·56	59·10	59·67	58·07	54·68	51·86	49·02
29	46·16		46·42	50·19	52·19	55·81	59·21	59·65	58·03	54·53	51·69	48·98
30	46·17		46·50	50·25	52·21	56·07	59·20	59·68	58·00	54·51	51·53	48·96
31	46·13		46·62		52·21		59·35	59·69		54·08		48·83
Means	46·41	46·17	45·95	48·85	51·30	53·76	58·39	59·88	58·76	56·25	53·36	49·78

The mean of the twelve monthly values is 52°·40.

(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.

1894.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	43·39	42·70	42·90	46·42	50·80	52·27	61·01	62·62	60·91	56·22	52·22	47·00
2	42·96	42·50	42·82	46·91	50·60	52·55	61·61	62·60	60·99	56·10	52·59	46·76
3	42·61	42·71	42·99	47·18	50·40	52·84	61·94	62·63	60·89	56·06	52·98	46·49
4	42·20	43·30	42·95	47·32	50·41	53·29	62·19	62·51	60·82	56·01	53·22	46·30
5	41·70	43·31	42·91	47·52	50·43	53·83	62·12	62·43	60·30	56·01	53·31	46·11
6	41·32	43·59	42·89	47·80	50·31	54·20	62·15	62·39	59·78	56·01	53·29	46·00
7	40·93	43·80	43·05	48·12	50·58	54·42	62·30	62·50	59·31	55·95	53·08	45·93
8	40·62	44·21	43·11	48·30	50·73	54·36	62·50	62·50	58·92	55·91	52·68	45·73
9	40·41	45·11	43·32	48·71	50·98	54·47	62·39	62·61	58·62	55·72	52·39	45·84
10	40·26	44·53	43·48	49·21	51·20	54·59	62·30	62·52	58·50	55·59	52·08	45·73
11	40·12	44·50	43·70	49·11	51·20	54·80	62·42	62·45	58·30	55·65	51·93	45·88
12	40·52	44·60	44·01	49·90	51·08	54·80	62·22	62·18	58·23	55·63	51·62	46·00
13	41·01	44·63	44·10	50·22	51·14	54·59	61·92	61·97	58·12	55·85	51·02	46·03
14	41·46	44·28	44·18	50·44	51·11	54·59	61·66	62·10	58·12	55·82	50·90	46·20
15	41·70	43·78	44·10	50·51	51·60	54·78	61·30	62·17	58·10	55·75	50·40	46·50
16	42·01	43·49	44·11	50·57	52·12	55·22	61·10	62·30	58·20	55·21	50·33	46·48
17	42·40	43·41	43·91	50·62	52·70	55·71	60·97	62·02	58·20	54·68	50·20	46·50
18	42·90	43·41	43·69	50·51	53·29	56·07	60·80	61·59	58·19	54·01	50·00	46·36
19	43·20	43·18	43·50	50·50	53·58	56·30	60·82	61·19	58·29	53·52	49·90	46·43
20	43·30	42·62	43·28	50·39	53·60	56·29	60·90	61·00	58·29	53·09	49·72	46·30

(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.*

1894.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
21	43·49	42·20	43·42	50·13	53·31	56·47	60·91	60·82	58·24	52·88	49·55	45·98
22	43·53	41·70	43·71	50·06	52·80	56·70	61·10	60·61	58·23	52·51	49·44	45·72
23	43·60	41·33	44·04	49·99	52·31	57·21	61·13	60·61	58·20	52·20	49·00	45·74
24	43·31	41·13	44·28	50·06	51·99	57·80	61·19	60·62	58·10	51·99	48·61	45·60
25	42·80	41·30	44·50	50·00	52·01	58·30	61·22	60·52	58·20	52·10	48·21	45·60
26	42·70	41·52	44·72	50·11	52·31	58·62	61·41	60·59	58·20	52·27	48·00	45·90
27	42·90	42·10	44·96	50·32	52·61	59·20	61·73	60·60	58·08	52·33	47·86	46·01
28	43·00	42·69	45·11	50·53	52·51	59·60	62·08	60·79	57·62	52·50	47·63	45·90
29	43·07		45·25	50·71	52·40	59·98	62·44	60·80	57·10	52·43	47·48	45·49
30	42·80		45·62	50·75	52·30	60·50	62·61	60·89	56·59	52·33	47·26	45·22
31	42·70		45·98		52·23		62·62	60·89		51·91		44·60
Means	42·22	43·13	43·89	49·43	51·76	55·81	61·71	61·65	58·65	54·33	50·56	46·01

The mean of the twelve monthly values is 51°·60.

(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.

1894.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	37·3	37·3	43·0	49·6	49·9	52·8	67·0	64·5	60·2	52·6	53·8	40·6
2	37·3	44·7	42·0	49·9	49·0	55·5	69·0	64·1	60·4	54·0	54·8	40·0
3	33·1	45·5	39·9	48·1	51·5	58·0	66·1	62·2	58·9	54·1	55·0	42·6
4	32·3	41·2	40·0	48·8	50·2	57·2	63·9	63·3	56·2	53·9	53·0	40·2
5	30·0	46·0	40·1	48·2	48·9	57·5	65·0	63·0	54·9	55·1	53·8	41·8
6	31·6	45·0	44·9	50·0	52·0	56·1	67·4	62·6	54·9	54·5	49·8	40·1
7	31·9	48·0	41·2	50·4	51·8	54·0	65·8	63·7	55·0	55·0	51·0	42·3
8	32·3	45·8	43·9	52·0	53·0	55·7	62·9	64·7	55·0	53·0	48·8	44·0
9	34·5	44·9	43·8	53·8	54·0	57·5	64·7	62·7	56·0	52·6	47·5	39·0
10	36·0	43·0	45·0	52·8	51·7	57·5	63·0	62·5	55·0	54·0	51·0	44·0
11	40·3	46·7	47·8	54·0	51·7	55·2	61·3	61·0	54·1	56·1	47·3	44·0
12	42·0	43·1	44·0	54·2	51·1	54·9	61·9	61·0	56·7	55·2	49·2	45·0
13	41·0	39·4	45·2	52·9	50·6	54·4	61·9	61·2	56·2	54·9	47·0	45·3
14	41·0	37·8	42·1	52·3	54·0	55·6	60·1	64·2	57·3	54·0	49·0	47·9
15	40·2	40·0	42·1	53·0	56·3	59·7	60·2	63·2	57·4	49·7	46·7	45·3
16	43·2	42·0	40·7	52·0	58·3	59·2	60·2	60·8	58·0	48·2	45·2	47·2
17	45·0	40·0	39·2	50·3	56·2	59·2	61·2	57·9	57·8	45·8	47·0	43·0
18	43·0	39·1	39·1	51·9	57·0	58·9	61·0	59·2	58·0	47·4	47·0	47·0
19	46·0	35·9	38·3	50·2	54·0	57·0	61·3	59·2	57·1	47·8	45·3	43·0
20	43·2	35·0	44·1	48·9	52·0	58·9	61·2	58·8	58·0	46·8	47·0	41·8
21	42·9	35·1	45·1	48·9	50·1	58·0	62·0	58·0	57·8	47·0	44·8	41·0
22	43·1	34·1	44·2	49·5	49·0	61·2	62·9	59·9	56·8	45·4	44·0	44·9
23	39·2	34·0	44·1	50·5	49·3	62·9	62·0	58·0	58·0	47·0	42·8	40·8
24	36·0	40·0	44·0	51·0	51·7	62·7	61·9	60·7	58·8	51·3	42·4	44·2
25	41·3	40·2	46·0	50·2	54·1	62·1	64·3	59·2	58·2	51·7	44·1	45·0

(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.*

1894.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
26	40·9	46·1	46·4	51·0	53·8	65·2	64·0	62·2	56·8	52·1	41·8	45·8
27	43·9	46·1	44·0	52·0	50·5	61·9	64·1	61·0	53·0	52·5	42·0	43·0
28	41·0	41·0	45·2	51·9	50·4	63·8	65·6	60·8	51·1	50·9	42·0	36·7
29	39·3		46·1	50·2	51·1	64·0	67·2	60·2	50·5	50·5	41·9	40·9
30	41·6		47·3	50·0	52·0	65·7	63·2	60·0	52·0	49·2	41·2	38·0
31	41·6		49·8		51·1		64·0	60·8		52·2		36·2
Means	39·1	41·3	43·5	50·9	52·1	58·7	63·4	61·3	56·3	51·4	47·2	42·6

The mean of the twelve monthly values is 50°·65.

(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.

1894.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	36·2	40·0	47·5	54·9	51·0	59·0	76·2	66·0	65·4	55·8	59·9	41·0
2	35·1	50·9	47·0	58·5	54·0	61·0	77·2	64·2	64·9	58·0	58·9	39·0
3	28·9	48·0	44·5	59·1	55·3	64·8	67·2	67·2	54·8	57·2	60·2	44·7
4	25·1	43·8	47·0	54·0	51·9	60·2	68·0	67·9	58·8	54·9	55·9	35·6
5	17·0	46·3	45·5	57·9	53·7	62·6	74·4	66·0	55·3	57·3	57·2	40·9
6	26·5	47·9	49·2	53·0	58·9	55·7	80·4	61·2	56·8	55·1	50·9	36·8
7	24·0	54·0	43·5	61·0	58·3	53·8	71·0	69·0	57·4	55·9	55·8	47·8
8	31·0	47·1	48·8	64·2	58·8	58·2	66·4	66·3	58·0	53·2	49·1	43·8
9	35·0	51·3	49·0	62·9	58·0	64·0	66·3	62·9	58·0	51·2	48·2	40·3
10	42·8	47·0	49·9	65·3	55·3	59·9	64·7	62·7	58·6	57·2	53·9	46·0
11	48·4	51·3	51·9	67·9	56·7	57·2	63·2	63·0	56·3	59·0	47·0	46·2
12	48·8	44·2	47·9	60·6	50·9	58·6	64·1	62·4	62·5	56·0	52·8	49·3
13	46·8	41·2	44·9	55·9	56·2	54·2	64·1	63·2	58·7	58·5	47·0	48·0
14	43·0	36·2	45·6	54·6	60·9	64·1	63·7	73·0	60·7	51·0	52·0	50·9
15	41·3	42·7	42·8	56·6	66·3	70·4	58·8	64·0	59·2	49·3	43·4	43·9
16	47·9	45·3	44·0	52·0	66·0	65·1	60·3	60·8	61·0	48·9	49·8	48·4
17	50·5	39·2	43·0	57·1	60·7	63·8	65·2	58·4	59·2	45·0	51·0	44·8
18	46·1	38·2	38·1	57·9	62·0	61·2	61·3	64·0	60·7	44·6	50·0	47·8
19	46·0	36·3	43·1	47·2	51·2	60·8	62·3	60·8	60·5	48·2	50·2	44·0
20	48·3	36·8	49·8	46·5	49·3	61·9	65·5	60·2	60·9	46·2	53·3	42·9
21	46·0	35·6	51·4	50·2	51·6	65·6	64·2	62·0	57·7	48·0	40·7	40·4
22	45·9	35·9	45·4	52·0	50·2	68·0	67·0	65·9	56·4	45·8	45·9	45·9
23	35·5	38·8	47·2	55·0	49·5	70·0	62·3	57·4	62·0	48·9	41·0	42·1
24	34·3	44·8	47·9	55·0	62·1	65·8	63·9	62·0	60·2	55·9	45·9	48·9
25	46·3	44·8	55·0	55·3	64·9	71·2	71·9	59·0	59·5	56·6	44·7	47·0
26	39·8	50·9	56·0	57·9	52·9	68·9	68·2	71·0	54·0	57·5	42·0	46·9
27	49·2	49·2	55·1	57·0	49·0	67·8	70·9	61·9	54·4	55·0	42·0	40·0
28	40·3	38·9	51·1	57·1	52·1	74·0	75·0	63·0	53·8	51·8	42·4	37·9
29	40·3		49·7	53·9	56·0	73·2	74·0	64·0	54·0	54·2	43·2	40·8
30	45·0		58·2	55·0	58·3	76·9	61·8	67·1	56·2	51·4	42·6	35·0
31	39·2		60·2		53·8		71·0	67·1		57·2		33·9
Means	39·7	43·8	48·4	56·5	56·0	63·9	67·4	64·0	58·5	53·1	49·2	43·3

The mean of the twelve monthly values is 53°·65.

ABSTRACT of the CHANGES of the DIRECTION of the WIND, as derived from the Records of OSLER'S ANEMOMETER in the Year 1894.

(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. 3½	1. 5½	S.W.	N.	135	
1. 9	1. 12	N.	N.N.W.		22½
2. 10	2. 11	N.N.W.	N.N.E.	45	
2. 14	2. 14½	N.N.E.	N.E.	22½	
3. 4	3. 5	N.E.	E.N.E.	22½	
3. 12	3. 13	E.N.E.	N.E.		22½
4. 8½	4. 9	N.E.	E.N.E.	22½	
4. 13½	4. 14½	E.N.E.	N.E.		22½
4. 16	4. 17	N.E.	E.N.E.	22½	
4. 21	4. 22	E.N.E.	E.	22½	
5. 3	5. 8	E.	E.S.E.	22½	
5. 11	5. 12	E.S.E.	E.		22½
5. 16	5. 19	E.	S.E.	45	
6. 0	6. 0½	S.E.	E.		45
6. 6½	6. 7½	E.	N.		90
6. 9	6. 9½	N.	N.E.	45	
6. 16	6. 17½	N.E.	S.E.	90	
6. 20	6. 20¼	S.E.	S.W.	90	
6. 22	6. 23	S.W.	S.E.		90
7. 4¾	7. 5	S.E.	E.		45
7. 10¾	7. 11	E.	E.S.E.	22½	
8. 4	8. 4¼	E.S.E.	E.		22½
8. 5½	8. 5¾	E.	N.E.		45
8. 8	8. 9	N.E.	E.S.E.	67½	
8. 17	8. 18	E.S.E.	S.E.	22½	
9. 4	9. 5½	S.E.	E.S.E.		22½
9. 6½	9. 8	E.S.E.	S.E.	22½	
9. 9½	9. 11	S.E.	E.S.E.		22½
9. 16	9. 17	E.S.E.	S.E.	22½	
9. 21¾	9. 22	S.E.	E.		45
9. 22¾	9. 23	E.	S.E.	45	
10. 0¾	10. 1	S.E.	S.S.E.	22½	
10. 3	10. 4	S.S.E.	S.	22½	
11. 14½	11. 16	S.	S.E.		45
11. 21	11. 22	S.E.	S.	45	
12. 8	12. 10½	S.	S.W.	45	
12. 14	12. 15	S.W.	S.S.W.		22½
12. 16	12. 16¾	S.S.W.	S.		22½
13. 0	13. 1	S.	S.S.E.		22½
13. 16	13. 17	S.S.E.	S.E.		22½
14. 3¾	14. 4	S.E.	E.S.E.		22½
14. 6	14. 6½	E.S.E.	E.N.E.		45
14. 7¾	14. 8	E.N.E.	S.E.	67½	
14. 9	14. 9¼	S.E.	N.E.		90
14. 10	14. 10½	N.E.	E.S.E.	67½	
14. 12	14. 12½	E.S.E.	S.E.	22½	
14. 13¾	14. 14	S.E.	S.S.E.	22½	
14. 15¾	14. 16¼	S.S.E.	S.S.W.	45	
14. 21	14. 22	S.S.W.	S.W.	22½	
15. 0	15. 2	S.W.	W.S.W.	22½	

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
Jan.—*cont.*					
d h	d h				
15. 4½	15. 6	W.S.W.	S.W.		22½
15. 13	15. 16	S.W.	S.		45
15. 20	15. 23	S.	S.S.W.	22½	
16. 2	16. 3	S.S.W.	S.W.	22½	
16. 19	16. 20	S.W.	S.S.W.		22½
17. 8	17. 11	S.S.W.	S.W.	22½	
18. 7	18. 10	S.W.	W.	45	
18. 16	18. 20	W.	W.S.W.		22½
19. 1	19. 2	W.S.W.	S.W.		22½
19. 13	19. 15	S.W.	S.S.W.		22½
20. 6	20. 9	S.S.W.	S.W.	22½	
20. 15	20. 19	S.W.	W.S.W.	22½	
21. 6	21. 7	W.S.W.	S.W.		22½
21. 11½	21. 12	S.W.	S.S.W.		22½
22. 14½	22. 15	S.S.W.	S.W.	22½	
22. 17½	22. 18	S.W.	N.N.W.	112½	
22. 20	22. 20½	N.N.W.	S.W.		112½
23. 3	23. 4½	S.W.	N.W.	90	
23. 7½	23. 9½	N.W.	N.N.W.	22½	
24. 2	24. 3	N.N.W.	S.W.		112½
24. 8	24. 9	S.W.	S.S.W.		22½
26. 2½	26. 3	S.S.W.	S.W.	22½	
26. 4	26. 4½	S.W.	N.W.	90	
26. 9	26. 12	N.W.	W.		45
26. 15	26. 17	W.	S.W.		45
27. 22½	27. 23	S.W.	W.S.W.	22½	
29. 1	29. 1½	W.S.W.	W.	22½	
29. 3	29. 4½	W.	W.S.W.		22½
29. 14	29. 14¼	W.S.W.	S.W.		22½
29. 16½	29. 17	S.W.	S.S.W.		22½
30. 2	30. 3	S.S.W.	S.W.	22½	
30. 17	30. 18	S.W.	S.S.W.		22½
31. 7	31. 8	S.S.W.	N.	157½	
31. 11½	31. 12	N.	N.N.W.		22½
31. 13	31. 16	N.N.W.	W.S.W.		90
31. 18	31. 20	W.S.W.	S.		67½
31. 21	31. 21½	S.	E.S.E.		67½
31. 22½	31. 23¼	E.S.E.	N.E.		67½
			Sums	1935	1755

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
February.					
d h	d h				
1. 0¼	1. 1	N.E.	N.N.W.		67½
1. 2½	1. 6	N.N.W.	S.W.		112½
1. 19	1. 21	S.W.	W.S.W.	22½	
2. 1½	2. 2	W.S.W.	S.W.		22½
2. 3	2. 4	S.W.	W.S.W.	22½	
2. 7½	2. 9	W.S.W.	S.W.		22½
3. 6	3. 10	S.W.	W.N.W.	67½	
3. 20	3. 21	W.N.W.	W.S.W.		45
4. 11½	4. 12	W.S.W.	S.W.		22½
4. 23	5. 1	S.W.	W.S.W.	22½	
5. 9	5. 10	W.S.W.	N.E.	157½	
5. 13½	5. 13¾	N.E.	N.		45
5. 14	5. 15½	N.	E.S.E.	112½	
5. 16½	5. 17¼	E.S.E.	N.E.		67½
5. 18½	5. 19½	N.E.	E.	45	
5. 23	5. 23½	E.	S.E.	45	
6. 1	6. 1½	S.E.	S.S.E.	22½	
6. 3	6. 5	S.S.E.	S.W.	67½	
8. 0	8. 2	S.W.	W.S.W.	22½	
8. 4	8. 7	W.S.W.	W.N.W.	45	
8. 8½	8. 12	W.N.W.	W.S.W.		45
8. 17	8. 18	W.S.W.	S.W.		22½
9. 1½	9. 2	S.W.	S.S.W.		22½
9. 4	9. 5	S.S.W.	S.W.	22½	
9. 14	9. 15	S.W.	W.S.W.	22½	
9. 19	9. 20	W.S.W.	S.W.		22½
10. 7	10. 10	S.W.	W.S.W.	22½	
10. 17½	10. 20	W.S.W.	S.W.		22½
11. 1	11. 5	S.W.	W.S.W.	22½	
11. 13	11. 16	W.S.W.	S.W.		22½
11. 23	12. 0	S.W.	W.S.W.	22½	
13. 3	13. 5	W.S.W.	W.	22½	
13. 9	13. 10	W.	N.W.	45	
13. 15	13. 15½	N.W.	W.		45
13. 16½	13. 18½	W.	S.W.		45
14. 6	14. 6½	S.W.	W.S.W.	22½	
14. 7¾	14. 8	W.S.W.	N.N.W.	90	
14. 10¾	14. 11	N.N.W.	S.W.		112½
14. 12½	14. 13	S.W.	S.E.		90
14. 14	14. 15	S.E.	S.S.E.	22½	
14. 22	14. 22½	S.S.E.	S.E.		22½
15. 11	15. 11¼	S.E.	S.S.W.	67½	
15. 13¼	15. 13½	S.S.W.	S.		22½
15. 16	15. 16¼	S.	S.S.E.		22½
15. 19	15. 19½	S.S.E.	S.	22½	
16. 1	16. 2	S.	S.S.E.		22½
16. 4	16. 7	S.S.E.	S.S.W.	45	
16. 12	16. 14	S.S.W.	S.		22½
16. 16½	16. 17½	S.	S.E.		45
16. 21	16. 21½	S.E.	E.S.E.		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.
				°	°
Feb.—*cont.*					
d h	d h				
17. 0½	17. 1½	E.S.E.	E.		22½
17. 7	17. 8	E.	E.S.E.	22½	
17. 14	17. 15	E.S.E.	E.		22½
17. 20	18. 4	E.	E.N.E.		22½
18. 19	18. 20	E.N.E.	E.	22½	
19. 5	19. 7	E.	E.S.E.	22½	
19. 8	19. 10	E.S.E.	E.		22½
19. 12	19. 14	E.	E.N.E.		22½
20. 0	20. 2	E.N.E.	E.	22½	
20. 5½	20. 5¾	E.	N.N.E.		67½
20. 8	20. 11	N.N.E.	E.N.E.	45	
21. 0½	21. 1	E.N.E.	E.	22½	
21. 2¼	21. 2¾	E.	N.N.E.		67½
21. 5½	21. 6	N.N.E.	N.		22½
21. 8	21. 9	N.	N.E.	45	
22. 1½	22. 2½	N.E.	N.N.E.		22½
22. 5½	22. 6	N.N.E.	N.		22½
22. 7	22. 9½	N.	N.E.	45	
22. 11½	22. 12	N.E.	E.N.E.	22½	
22. 14¾	22. 15½	E.N.E.	E.	22½	
22. 16½	22. 17	E.	E.N.E.		22½
22. 23	23. 1	E.N.E.	S.W.	157½	
23. 12	23. 15	S.W.	S.S.W.		22½
24. 3	24. 4¼	S.S.W.	W.S.W.	45	
24. 9	24. 10	W.S.W.	W.	22½	
24. 19	24. 20	W.	W.S.W.		22½
25. 0	25. 0½	W.S.W.	S.W.		22½
25. 5	25. 7	S.W.	S.S.W.		22½
25. 10	25. 12	S.S.W.	S.W.	22½	
25. 23	26. 1	S.W.	W.S.W.	22½	
26. 4	26. 7	W.S.W.	S.W.		22½
27. 14	27. 16	S.W.	W.	45	
27. 17½	27. 19	W.	W.S.W.		22½
27. 23	28. 3	W.S.W.	S.		67½
28. 8	28. 9	S.	S.E.		45
28. 10½	28. 13	S.E.	W.S.W.		247½
28. 15	28. 16	W.S.W.	W.	22½	
28. 17	28. 20	W.	S.W.		45
28. 22	28. 23	S.W.	S.S.W.		22½
			Sums	1732½	1935
March.					
1. 22	1. 22½	S.S.W.	W.S.W.	45	
2. 0	2. 2	W.S.W.	S.W.		22½
2. 8½	2. 10	S.W.	W.S.W.	22½	
2. 21½	2. 23	W.S.W.	S.W.		22½
3. 6½	3. 7	S.W.	S.S.W.		22½
3. 8½	3. 9½	S.S.W.	S.W.	22½	
3. 15½	3. 20	S.W.	S.		45
4. 0	4. 3	S.	S.W.	45	
4. 7	4. 8	S.W.	W.S.W.	22½	
4. 16	4. 17½	W.S.W.	W.N.W.	45	
4. 22	5. 0	W.N.W.	N.N.W.	45	
5. 3	5. 5	N.N.W.	S.W.		112½

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
March—*cont.*					
d h					
6. 6	6. 8	SW.	W.	45	
6. 13	6. 15	W.	W.N.W.	22½	
7. 5	7. 6	W.N.W.	W.S.W.		45
7. 7	7. 10	W.S.W.	N.N.W.	90	
7. 10¾	7. 12	N.N.W.	S.W.		112½
7. 14	7. 14¼	S.W.	S.S.W.		22½
8. 13¾	8. 14	S.S.W.	S.W.	22½	
8. 17	8. 18	S.W.	W.S.W.	22½	
8. 19¾	8. 20	W.S.W.	S.W.		22½
8. 23	9. 2	S.W.	S.S.W.		22½
9. 17	9. 23	S.S.W.	S.W.	22½	
10. 13½	10. 14½	S.W.	W.S.W.	22½	
10. 16	10. 17	W.S.W.	S.W.		22½
10. 19½	10. 20	S.W.	S.S.W.		22½
10. 23½	11. 1	S.S.W.	S.W.	22½	
11. 12	11. 13	S.W.	W.S.W.	22½	
11. 19	11. 20	W.S.W.	S.W.		22½
12. 16	12. 19	S.W.	S.S.W.		22½
13. 6	13. 7	S.S.W.	W.S.W.	45	
13. 12	13. 13	W.S.W.	S.W.		22½
14. 5	14. 10½	S.W.	W.S.W.	22½	
14. 13	14. 14	W.S.W.	S.S.W.		45
14. 19	14. 23	S.S.W.	E.S.E.		90
15. 2	15. 6	E.S.E.	N.N.W.		135
15. 23½	16. 1	N.N.W.	N.W.		22½
16. 2	16. 3	N.W.	S.W.		90
16. 4	16. 5½	S.W.	W.N.W.	67½	
16. 7	16. 10	W.N.W.	N.	67½	
16. 16	16. 17	N.	E.N.E.	67½	
16. 21	16. 22	E.N.E.	N.		67½
16. 23	17. 0	N.	N.N.W.		22½
17. 4¾	17. 5	N.N.W.	N.	22½	
17. 11½	17. 12	N.	N.N.E.	22½	
17. 19	17. 19¼	N.N.E.	N.N.W.		45
17. 20	17. 20½	N.N.W.	S.W.		112½
18. 10	18. 11	S.W.	S.S.W.		22½
18. 15	18. 16	S.S.W.	E.S.E.		90
18. 17½	18. 18½	E.S.E.	S.	67½	
18. 19	18. 20	S.	S.S.E.		22½
19. 1	19. 1¼	S.S.E.	S.	22½	
19. 4	19. 4½	S.	W.S.W.	67½	
19. 6¼	19. 7	W.S.W.	S.W.		22½
19. 13	19. 13½	S.W.	N.N.W.		247½
19. 17	19. 17½	N.N.W.	N.W.		22½
19. 20¾	19. 21	N.W.	W.S.W.		67½
20. 0¾	20. 1½	W.S.W.	N.W.	67½	
20. 3	20. 3½	N.W.	N.N.W.	22½	
20. 5	20. 5½	N.N.W.	N.	22½	
20. 7	20. 11½	N.	E.	90	
20. 15	20. 15½	E.	N.N.E.		67½
20. 16¼	20. 17	N.N.E.	E.	67½	
20. 22	20. 23	E.	N.E.		45
21. 4	21. 6	N.E.	E.N.E.	22½	
21. 11½	21. 12	E.N.E.	E.	22½	
21. 18	21. 20	E.	E.N.E.		22½
21. 23	22. 0	E.N.E.	N.E.		22½
22. 2	22. 2½	N.E.	N.N.E.		22½
22. 7	22. 10	N.N.E.	E.N.E.	45	
23. 1	23. 6	E.N.E.	N.E.		22½

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
March—*cont.*					
d h	d h				
23. 11	23. 12	N.E.	E.N.E.	22½	
23. 20	23. 22	E.N.E.	E.	22½	
24. 0	24. 1½	E.	N.E.		45
24. 12	24. 15	N.E.	E.	45	
24. 22	25. 0½	E.	N.E.		45
25. 2½	25. 4	N.E.	E.N.E.	22½	
25. 8	25. 8½	E.N.E.	E.	22½	
25. 9½	25. 9¾	E.	E.N.E.		22½
25. 12	25. 14	E.N.E.	E.	22½	
25. 20	25. 21	E.	E.N.E.		22½
26. 5	26. 8	E.N.E.	N.E.		22½
26. 10	26. 11	N.E.	E.N.E.	22½	
26. 13	26. 14	E.N.E.	E.	22½	
27. 1¼	27. 1½	E.	N.E.		45
27. 4½	27. 4¾	N.E.	E.	45	
27. 8½	27. 9	E.	E.N.E.		22½
27. 16	27. 17	E.N.E.	E.	22½	
27. 23	28. 1	E.	E.N.E.		22½
28. 14	28. 15	E.N.E.	E.	22½	
29. 3	29. 5	E.	E.N.E.		22½
29. 12	29. 13	E.N.E.	E.	22½	
30. 0	30. 1	E.	N.E.		45
30. 7	30. 10	N.E.	E.	45	
30. 11	30. 12	E.	S.E.	45	
30. 15	30. 16	S.E.	S.S.E.	22½	
30. 18½	30. 19	S.S.E.	S.E.		22½
30. 20½	30. 20¾	S.E.	N.N.E.		112½
30. 21½	30. 22	N.N.E.	W.	247½	
30. 23¾	31. 0	W.	S.		90
31. 1	31. 1¼	S.	N.E.		135
31. 1¾	31. 2½	N.E.	S.S.E.	112½	
31. 7	31. 9	S.S.E.	S.S.W.	45	
31. 19	31. 20	S.S.W.	S.W.	22½	
			Sums	2227½	2565
April.					
1. 7	1. 8	S.W.	S.		45
1. 9	1. 11	S.	E.	270	
1. 12½	1. 12¾	E.	S.S.W.	112½	
1. 16	1. 18	S.S.W.	S.E.		67½
2. 0½	2. 0¾	S.E.	N.E.		90
2. 1½	2. 2	N.E.	E.	45	
2. 2½	2. 3½	E.	E.S.E.	22½	
2. 7½	2. 8	E.S.E.	N.E.		67½
2. 8½	2. 9	N.E.	S.E.	90	
2. 14½	2. 16	S.E.	E.	315	
2. 19½	2. 21	E.	S.E.	45	
2. 22	2. 22½	S.E.	E.N.E.		67½
3. 10	3. 11	E.N.E.	E.	22½	
3. 21	3. 22	E.	E.N.E.		22½
4. 9½	4. 10	E.N.E.	E.	22½	
4. 13½	4. 14	E.	E.N.E.		22½
4. 15¼	4. 15½	E.N.E.	E.	22½	
4. 20	4. 21	E.	E.N.E.		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.
				°	°
April—*cont.*					
d h	d h				
5. 6½	5. 7	E.N.E.	N.E.		22½
5. 10	5. 11	N.E.	E.N.E.	22½	
5. 18	5. 20	E.N.E.	N.E.		22½
6. 9	6. 10	N.E.	E.N.E.	22½	
6. 20	7. 2	E.N.E.	N.N.E.		45
7. 5¾	7. 6	N.N.E.	N.E.	22½	
7. 8	7. 9	N.E.	E.N.E.	22½	
7. 13½	7. 15	E.N.E.	E.	22½	
7. 22½	8. 1½	E.	N.E.		45
8. 10	8. 11	N.E.	S.W.		180
8. 12½	8. 13	S.W.	S.S.E.	292½	
8. 14	8. 14½	S.S.E.	E.S.E.		45
8. 15½	8. 19½	E.S.E.	S.	67½	
8. 22	9. 1	S.	S.W.	45	
9. 4	9. 5	S.W.	S.S.W.		22½
9. 8	9. 9	S.S.W.	S.W.	22½	
9. 10	9. 12	S.W.	S.		45
9. 14	9. 15	S.	S.S.W.	22½	
9. 19½	9. 20½	S.S.W.	S.		22½
9. 22½	9. 23½	S.	S.S.W.	22½	
10. 4¾	10. 5¼	S.S.W.	E.		112½
10. 9	10. 10	E.	E.S.E.	22½	
10. 10½	10. 11	E.S.E.	S.	67½	
10. 16½	10. 17	S.	S.S.E.		22½
10. 18	10. 18½	S.S.E.	E.		67½
10. 21	10. 22	E.	E.N.E.		22½
11. 3	11. 4	E.N.E.	N.E.		22½
11. 8½	11. 9¼	N.E.	E.S.E.	67½	
11. 10½	11. 11	E.S.E.	S.	67½	
11. 12	11. 14	S.	E.		90
11. 19½	11. 22	E.	S.S.E.	67½	
12. 1	12. 2	S.S.E.	S.	22½	
12. 5½	12. 8	S.	S.W.	45	
12. 15	12. 17	S.W.	W.	45	
13. 2	13. 3	W.	W.S.W.		22½
13. 8	13. 8½	W.S.W.	W.N.W.	45	
13. 10	13. 11	W.N.W.	W.		22½
13. 14½	13. 15	W.	S.S.W.		67½
13. 20½	13. 21½	S.S.W.	S.		22½
13. 22½	14. 1	S.	E.S.E.	292½	
14. 4	14. 9½	E.S.E.	S.	67½	
15. 0	15. 1	S.	S.S.W.	22½	
15. 5½	15. 6	S.S.W.	S.		22½
15. 18	15. 20	S.	S.E.		45
15. 23	15. 23½	S.E.	E.S.E.		22½
16. 7	16. 8	E.S.E.	S.	67½	
16. 14	16. 14½	S.	S.S.W.	22½	
16. 18	16. 20	S.S.W.	S.		22½
17. 6	17. 8	S.	S.S.E.		22½
17. 10	17. 12	S.S.E.	S.	22½	
17. 19	17. 20	S.	S.E.		45
17. 22	17. 23½	S.E.	N.E.		90
18. 2	18. 2¼	N.E.	E.N.E.	22½	
18. 4	18. 4½	E.N.E.	N.E.		22½
18. 6½	18. 8	N.E.	E.S.E.	67½	
18. 8½	18. 9	E.S.E.	N.E.		67½
18. 11½	18. 13	N.E.	S.E.	90	
18. 14	18. 14¼	S.E.	E.		45
18. 16	18. 17	E.	N.		90

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
April—*cont.*					
d h	d h				
18. 19	18. 20	N.	N.E.	45	
18. 22	19. 0	N.E.	N.		45
19. 20	19. 22	N.	N.N.E.	22½	
20. 10	20. 12	N.N.E.	N.E.	22½	
20. 15	20. 16	N.E.	E.N.E.	22½	
20. 18	20. 18¼	E.N.E.	E.S.E.	45	
20. 21½	21. 2	E.S.E.	E.		22½
21. 6	21. 7	E.	N.E.		45
21. 16½	21. 17½	N.E.	E.	45	
22. 0	22. 0½	E.	E.N.E.		22½
22. 4	22. 4½	E.N.E.	E.	22½	
22. 9	22. 10	E.	N.E.		45
22. 14½	22. 15	N.E.	S.E.	90	
22. 16½	22. 17½	S.E.	E.		45
22. 20	22. 21	E.	E.S.E.	22½	
23. 21	23. 23	E.S.E.	S.E.	22½	
24. 0	24. 2	S.E.	S.S.W.	67½	
24. 4	24. 5	S.S.W.	S.		22½
24. 16	24. 17½	S.	S.S.W.	22½	
24. 19	24. 20	S.S.W.	S.		22½
24. 22	25. 0	S.	S.S.W.	22½	
25. 2	25. 4½	S.S.W.	S.E.		67½
25. 5	25. 6	S.E.	S.W.	90	
25. 11	25. 12	S.W.	S.S.W.		22½
25. 21	25. 22	S.S.W.	S.S.E.		45
25. 23	26. 0	S.S.E.	S.	22½	
26. 3	26. 4	S.	S.S.E.		22½
26. 5½	26. 6½	S.S.E.	S.	22½	
26. 8	26. 9	S.	S.S.W.	22½	
26. 18	26. 20	S.S.W.	S.		22½
27. 0	27. 2	S.	W.S.W.	67½	
27. 5	27. 9	W.S.W.	S.W.		22½
27. 13½	27. 14	S.W.	S.S.W.		22½
27. 16	27. 19	S.S.W.	S.		22½
27. 21	28. 1	S.	S.E.		45
28. 4½	28. 6	S.E.	N.E.		90
28. 15	28. 16	N.E.	N.		45
29. 8¾	29. 10	N.	S.		180
29. 10½	29. 10¾	S.	N.W.		225
29. 12	29. 12¾	N.W.	S.E.	180	
29. 15	29. 17	S.E.	S.W.	90	
29. 21	29. 22	S.W.	W.S.W.	22½	
30. 9¾	30. 12	W.S.W.	N.	112½	
30. 15½	30. 16	N.	N.N.E.	22½	
			Sums	3802½	2925
May.					
1. 2	1. 3	N.N.E.	N.		22½
1. 18	1. 19	N.	N.N.E.	22½	
1. 21	1. 23	N.N.E.	N.N.W.		45
2. 2	2. 2¼	N.N.W.	S.W.		112½
2. 9½	2. 10	S.W.	W.S.W.	22½	
2. 17	2. 18	W.S.W.	S.W.		22½

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
May—*cont.*					
d h	d h				
3. 8	3. 8½	S.W.	W.S.W.	22½	
3. 10½	3. 10¾	W.S.W.	W.N.W.	45	
3. 12	3. 12¼	W.N.W.	W.S.W.		45
3. 13½	3. 13½	W.S.W.	W.N.W.	45	
3. 14½	3. 15½	W.N.W.	N.W.	22½	
3. 20	3. 22	N.W.	W.S.W.		67½
4. 4½	4. 5½	W.S.W.	W.N.W.	45	
4. 10½	4. 11	W.N.W.	N.W.	22½	
4. 20	5. 0	N.W.	W.		45
5. 7½	5. 8	W.	W.N.W.	22½	
5. 10	5. 11	W.N.W.	W.		22½
5. 19	5. 20	W.	S.W.		45
6. 22	6. 23½	S.W.	W.S.W.	22½	
7. 22	7. 23	W.S.W.	S.W.		22½
8. 17	8. 22	S.W.	S.		45
9. 1	9. 2	S.	S.S.E.		22½
9. 4½	9. 5	S.S.E.	S.	22½	
9. 16	9. 18	S.	S.S.W.	22½	
10. 1	10. 2	S.S.W.	S.		22½
10. 13	10. 14	S.	S.S.W.	22½	
10. 15½	10. 16	S.S.W.	S.W.	22½	
10. 18	10. 21	S.W.	S.		45
11. 0	11. 1	S.	S.S.W.	22½	
11. 2	11. 3	S.S.W.	S.		22½
11. 5½	11. 6	S.	S.S.W.	22½	
11. 9	11. 11	S.S.W.	S.		22½
11. 14	11. 15½	S.	S.E.		45
11. 17½	11. 21	S.E.	S.S.W.	67½	
11. 23	12. 0	S.S.W.	S.W.	22½	
12. 1½	12. 3	S.W.	N.N.W.	112½	
12. 15	12. 19	N.N.W.	N.W.		22½
13. 0	13. 2½	N.W.	S.W.		90
13. 6	13. 8	S.W.	N.W.	90	
13. 12½	13. 13	N.W.	S.S.W.	247½	
14. 0½	14. 2	S.S.W.	S.S.E.		45
14. 15	14. 20	S.S.E.	E.		67½
15. 1	15. 3	E.	E.N.E.		22½
15. 8	15. 10	E.N.E.	E.	22½	
16. 12	16. 13	E.	S.S.E.	67½	
16. 13½	16. 14½	S.S.E.	N.N.W.		180
16. 19	16. 21	N.N.W.	N.	22½	
17. 1	17. 3	N.	N.N.W.		22½
17. 10	17. 12	N.N.W.	N.	22½	
17. 17	17. 17½	N.	N.N.E.	22½	
17. 19	17. 20	N.N.E.	N.		22½
18. 9	18. 11	N.	N.N.E.	22½	
19. 3	19. 7	N.N.E.	N.E.	22½	
19. 16	19. 18	N.E.	N.N.E.		22½
19. 20	19. 23	N.N.E.	N.		22½
20. 15½	20. 16	N.	N.E.	45	
20. 17½	20. 18	N.E.	E.N.E.	22½	
20. 20½	20. 21½	E.N.E.	N.		67½
21. 0	21. 1	N.	N.N.W.		22½
21. 6	21. 7	N.N.W.	N.	22½	
21. 9	21. 11½	N.	N.E.	45	
21. 16	21. 17	N.E.	N.N.E.		22½
21. 22	22. 2	N.N.E.	N.N.W.		45
22. 7	22. 9	N.N.W.	N.	22½	
23. 6	23. 11	N.	N.E.	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.
				°	°
May—*cont.*					
d h	d h				
24. 18	24. 20	N.E.	N.N.E.		22½
25. 2	25. 2½	N.N.E.	N.		22½
25. 19	25. 21	N.	N.N.E.	22½	
25. 23	26. 0	N.N.E.	N.N.W.		45
26. 6	26. 11	N.N.W.	N.W.		22½
27. 6	27. 10	N.W.	N.N.W.	22½	
27. 18	27. 19	N.N.W.	N.W.		22½
27. 22	28. 0	N.W.	S.W.		90
28. 3	28. 4	S.W.	S.S.W.		22½
28. 10	28. 11	S.S.W.	S.W.	22½	
28. 12	28. 13½	S.W.	S.		45
29. 0½	29. 4	S.	S.W.	45	
29. 10	29. 11	S.W.	S.S.W.		22½
30. 2	30. 4	S.S.W.	S.W.	22½	
30. 10	30. 11	S.W.	S.S.W.		22½
31. 10	31. 12	S.S.W.	S.W.	22½	
31. 21	31. 22	S.W.	S.S.W.		22½
			Sums	1530	1710
June.					
1. 10	1. 11	S.S.W.	S.		22½
1. 18½	1. 20	S.	S.E.		45
1. 21½	1. 22½	S.E.	S.S.E.	22½	
2. 0	2. 1	S.S.E.	S.S.W.	45	
2. 3	2. 5	S.S.W.	S.S.E.		45
2. 7	2. 10	S.S.E.	S.W.	67½	
3. 12	3. 13	S.W.	S.S.W.		22½
3. 22½	3. 23½	S.S.W.	E.N.E.		135
4. 7	4. 9	E.N.E.	E.	22½	
4. 10	4. 11	E.	E.S.E.	22½	
4. 14	4. 17	E.S.E.	S.W.	112½	
6. 0	6. 6	S.W.	N.	135	
6. 9	6. 13	N.	N.E.	45	
6. 18	6. 20	N.E.	N.		45
7. 1	7. 2	N.	N.N.W.		22½
7. 18	7. 21	N.N.W.	S.W.		112½
7. 22½	7. 23	S.W.	N.W.	90	
8. 0	8. 2	N.W.	W.S.W.		67½
8. 4	8. 4½	W.S.W.	S.W.		22½
8. 17½	8. 20	S.W.	S.S.W.		22½
9. 7	9. 8	S.S.W.	S.W.	22½	
9. 13½	9. 15	S.W.	W.S.W.	22½	
9. 19	9. 20	W.S.W.	S.W.		22½
10. 22	11. 0	S.W.	W.S.W.	22½	
11. 6	11. 7	W.S.W.	W.	22½	
11. 15½	11. 16	W.	W.N.W	22½	
11. 19½	11. 20½	W.N.W.	S.W.		67½
12. 0	12. 1½	S.W.	W.N.W.	67½	
12. 4	12. 4½	W.N.W.	W.		22½
12. 6	12. 9	W.	N.N.W.	67½	
12. 11	12. 13½	N.N.W.	W.N.W.		45
12. 15½	12. 16½	W.N.W.	S.W.		67½
12. 19½	12. 22	S.W.	N.W.	90	

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
June—*cont.*					
d h	d h				
12. 22¾	13. 0	N.W.	W.S.W.		67½
13. 2	13. 2½	W.S.W.	N.W.	67½	
13. 4½	13. 6½	N.W.	N.	45	
13. 8	13. 11	N.	N.N.W.		22½
14. 0½	14. 0¾	N.N.W.	W.		67½
14. 1½	14. 3	W.	N.N.W.	67½	
14. 3¾	14. 5	N.N.W.	W.		67½
14. 10	14. 10½	W.	N.W.	45	
14. 20½	14. 21	N.W.	N.N.W.	22½	
15. 1½	15. 2½	N.N.W.	S.W.		112½
15. 18	15. 20	S.W.	S.S.W.		22½
15. 22	15. 23	S.S.W.	W.S.W.	45	
16. 6	16. 6½	W.S.W.	N.W.	67½	
16. 11	16. 11½	N.W.	N.N.W.	22½	
16. 14	16. 15½	N.N.W.	E.N.E.	90	
16. 23	17. 0	E.N.E.	S.E.	67½	
17. 2	17. 2½	S.E.	S.S.W.	67½	
17. 4½	17. 6	S.S.W.	S.		22½
17. 7	17. 8	S.	S.S.W.	22½	
17. 19	17. 21	S.S.W.	S.W.	22½	
18. 14	18. 18	S.W.	E.		135
18. 19½	19. 0	E.	N.W.		135
19. 10	19. 10½	N.W.	W.S.W.	292½	
19. 14½	19. 15	W.S.W.	S.W.		22½
19. 19½	19. 21	S.W.	S.S.W.		22½
20. 11½	20. 12	S.S.W.	S.W.	22½	
20. 23	21. 0½	S.W.	N.N.W.	112½	
21. 6	21. 7	N.N.W.	N.	22½	
21. 9	21. 9½	N.	S.W.	225	
21. 16	21. 18	S.W.	S.S.W.		22½
21. 23	21. 23½	S.S.W.	S.		22½
22. 4	22. 5	S.	S.S.W.	22½	
22. 8	22. 9	S.S.W.	S.W.	22½	
23. 0	23. 1	S.W.	S.S.W.		22½
23. 6	23. 7½	S.S.W.	S.W.	22½	
23. 10	23. 11	S.W.	S.S.W.		22½
23. 21	24. 1	S.S.W.	S.W.	22½	
24. 6	24. 7	S.W.	W.S.W.	22½	
24. 10	24. 13	W.S.W.	W.N.W.	45	
24. 21	24. 22	W.N.W.	S.W.		67½
25. 12	25. 13	S.W.	W.S.W.	22½	
25. 15	25. 16	W.S.W.	W.	22½	
25. 17½	25. 18½	W.	N.W.	45	
26. 8	26. 9	N.W.	N.E.	90	
26. 15	26. 18	N.E.	E.N.E.	22½	
26. 23	27. 5	E.N.E.	N.		67½
27. 8	27. 9	N.	N.E.	45	
27. 14	27. 15	N.E.	E.	45	
27. 23	28. 7	E.	N.E.		45
28. 9	28. 11	N.E.	E.N.E.	22½	
28. 17	28. 20	E.N.E.	E.S.E.	45	
28. 21	29. 1	E.S.E.	N.E.		67½
29. 7	29. 9	N.E.	E.N.E.	22½	
29. 12	29. 14	E.N.E.	E.	22½	
29. 23	29. 23½	E.	N.E.		45
30. 10	30. 12	N.E.	E.N.E.	22½	
			Sums	2812½	1867½

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
July.					
d h	d h				
1. 1	1. 2	E.N.E.	N.E.		22½
1. 6	1. 8	N.E.	E.N.E.	22½	
1. 13	1. 14	E.N.E.	E.	22½	
1. 19	1. 21½	E.	E.N.E.		22½
1. 23	2. 0	E.N.E.	S.S.W.	135	
2. 12	2. 12½	S.S.W.	S.		22½
2. 14	2. 15	S.	S.W.	45	
3. 1	3. 2	S.W.	W.S.W.	22½	
3. 5	3. 6	W.S.W.	N.W.	67½	
3. 18	3. 19	N.W.	N.N.W.	22½	
4. 1	4. 4	N.N.W.	S.W.		112½
4. 8½	4. 9	S.W.	N.N.W.	112½	
4. 15	4. 17	N.N.W.	E.S.E.	135	
4. 19¾	4. 20½	E.S.E.	S.S.W.	90	
5. 0	5. 0½	S.S.W.	S.W.	22½	
5. 8	5. 8½	S.W.	N.E.		180
5. 9	5. 9½	N.E.	S.E.		270
5. 19	6. 0	S.E.	E.		45
6. 7	6. 7½	E.	E.S.E.	22½	
6. 9½	6. 10	E.S.E.	S.E.	22½	
6. 16½	6. 17½	S.E.	S.	45	
6. 23½	7. 0	S.	S.S.W.	22½	
7. 4	7. 5	S.S.W.	S.W.	22½	
8. 15	8. 15½	S.W.	S.S.W.		22½
8. 21	8. 23	S.S.W.	S.E.		67½
9. 0	9. 2	S.E.	S.W.	90	
10. 11	10. 11½	S.W.	S.		45
10. 16	10. 16½	S.	S.S.E.		22½
10. 17½	10. 18	S.S.E.	N.N.E.		135
11. 0	11. 4	N.N.E.	N.W.		67½
11. 5	11. 7	N.W.	W.		45
11. 10½	11. 12½	W.	S.W.		45
11. 18	11. 20	S.W.	S.S.W.		22½
11. 22	11. 23	S.S.W.	S.		22½
12. 1	12. 1½	S.	S.E.		45
12. 2½	12. 3	S.E.	S.S.E.	22½	
12. 4½	12. 5	S.S.E.	S.	22½	
12. 6	12. 9½	S.	W.S.W.	67½	
12. 12	12. 16	W.S.W.	S.W.		22½
12. 23	13. 4	S.W.	S.S.W.		22½
13. 20	13. 23	S.S.W.	S.W.	22½	
14. 19	14. 20	S.W.	S.S.W.		22½
15. 1	15. 7	S.S.W.	W.S.W.	45	
15. 12	15. 13	W.S.W.	W.	22½	
15. 16	15. 19	W.	W.N.W.	22½	
15. 20	15. 21	W.N.W.	W.		22½
16. 0	16. 9	W.	S.S.W.		67½
16. 10½	16. 12	S.S.W.	S.W.	22½	
16. 12½	16. 14	S.W.	S.S.W.		22½
16. 21	16. 23	S.S.W.	S.W.	22½	
17. 10	17. 11	S.W.	W.S.W.	22½	
17. 17	17. 19	W.S.W.	S.W.		22½
18. 3	18. 8	S.W.	W.S.W.	22½	
19. 9	19. 10	W.S.W.	W.	22½	
19. 13½	19. 14	W.	W.S.W.		22½
20. 0	20. 1	W.S.W.	S.W.		22½
20. 9½	20. 12	S.W.	S.S.W.		22½
20. 21½	20. 22	S.S.W.	S.		22½
21. 0	21. 1	S.	E.N.E.		112½

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.
				°	°
July—*cont.*					
d h	d h				
21. 2½	21. 5	E.N.E.	S.S.W.	135	
21. 7	21. 7½	S.S.W.	S.W.	22½	
21. 10	21. 10½	S.W.	W.S.W.	22½	
21. 14	21. 15	W.S.W.	S.W.		22½
21. 16½	21. 17	S.W.	S.S.W.		22½
21. 21	21. 23½	S.S.W.	W.S.W.	45	
22. 1½	22. 2	W.S.W.	S.W.		22½
22. 14½	22. 15	S.W.	N.	135	
22. 16½	22. 17	N.	N.E.	45	
23. 3½	23. 4½	N.E.	N.		45
23. 19¾	23. 20	N.	N.N.E.	22½	
24. 14	24. 15½	N.N.E.	E.	67½	
25. 0	25. 1½	E.	S.E.	45	
25. 5½	25. 6	S.E.	S.	45	
25. 13	25. 15	S.	S.W.	45	
25. 17	25. 17½	S.W.	S.S.W.		22½
25. 22	25. 22½	S.S.W.	E.		112½
25. 23½	26. 0	E.	S.E.	45	
26. 1	26. 1½	S.E.	E.S.E.		22½
26. 3½	26. 5	E.S.E.	S.	67½	
26. 13	26. 15	S.	S.W.	45	
27. 8	27. 8½	S.W.	S.E.		90
27. 9	27. 9½	S.E.	S.W.	90	
27. 10	27. 12	S.W.	S.E.		90
27. 15	27. 16½	S.E.	E.S.E.		22½
27. 20½	27. 20¾	E.S.E.	S.S.E.	45	
27. 22	27. 23	S.S.E.	S.	22½	
28. 1	28. 2	S.	S.S.E.		22½
28. 3¾	28. 4½	S.S.E.	E.S.E.		45
28. 6	28. 6½	E.S.E.	N.E.		67½
28. 10	28. 10¼	N.E.	E.	45	
28. 22	29. 1	E.	E.N.E.		22½
29. 13½	29. 13¾	E.N.E.	W.S.W.		180
29. 21¾	29. 22	W.S.W.	N.N.E.	135	
30. 2	30. 3	N.N.E.	N.		22½
30. 12	30. 14	N.	N.N.W.		22½
30. 16	30. 17	N.N.W.	N.	22½	
31. 1	31. 2	N.	N.W.		45
31. 3	31. 3½	N.W.	S.W.		90
31. 5½	31. 6½	S.W.	S.E.		90
31. 8½	31. 8¾	S.E.	S.W.	90	
31. 10	31. 10½	S.W.	S.E.		90
31. 11½	31. 12	S.E.	W.S.W.		247½
31. 17	31. 19	W.S.W.	S.W.		22½
			Sums	2497½	3060
August.					
3. 0	3. 1	S.W.	W.S.W.	22½	
3. 11	3. 12	W.S.W.	W.	22½	
3. 14½	3. 15	W.	W.S.W.		22½
3. 18	3. 20	W.S.W.	S.W.		22½
4. 13	4. 15	S.W.	S.S.W.		22½
4. 23	5. 2	S.S.W.	S.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.
				°	°
Aug.—*cont.*					
d h	d h				
5. 3	5. 4	S.W.	W.S.W.	22½	
5. 9	5. 14	W.S.W.	S.S.W.		45
5. 19	5. 21	S.S.W.	S.		22½
6. 1½	6. 2	S.	S.E.		45
6. 3½	6. 4	S.E.	N.N.W.		157½
6. 13	6. 14½	N.N.W.	S.E.	157½	
6. 15½	6. 17	S.E.	N.N.W.	202½	
6. 22½	7. 1	N.N.W.	S.W.	247½	
7. 18½	7. 21	S.W.	S.S.W.		22½
8. 15	8. 16	S.S.W.	S.W.	22½	
9. 6	9. 8½	S.W.	W.S.W.	22½	
9. 18	9. 22	W.S.W.	S.W.		22½
10. 4	10. 6	S.W.	W.S.W.	22½	
10. 8	10. 9	W.S.W.	W.N.W.	45	
10. 13½	10. 14½	W.N.W.	N.N.W.	45	
10. 18½	10. 19½	N.N.W.	S.W.	247½	
10. 20	10. 21	S.W.	N.E.	180	
10. 21½	10. 22	N.E.	N.N.W.		67½
11. 1	11. 3	N.N.W.	W.		67½
11. 4½	11. 5½	W.	W.N.W.	22½	
11. 9	11. 9½	W.N.W.	N.W.	22½	
11. 14	11. 16	N.W.	W.S.W.		67½
12. 0	12. 3	W.S.W.	S.W.		22½
13. 4	13. 6	S.W.	N.W.	90	
13. 11	13. 11¼	N.W.	W.N.W.		22½
13. 21½	13. 23	W.N.W.	S.W.		67½
16. 4½	16. 6	S.W.	W.S.W.	22½	
16. 13	16. 14	W.S.W.	N.N.W.	90	
16. 15	16. 15½	N.N.W.	W.		67½
16. 16½	16. 17	W.	N.N.W.	67½	
16. 20	16. 21	N.N.W.	N.W.		22½
17. 0	17. 2	N.W.	W.S.W.		67½
17. 6	17. 8½	W.S.W.	N.W.	67½	
17. 10½	17. 13	N.W.	W.S.W.		67½
18. 6	18. 8	W.S.W.	N.W.	67½	
18. 11	18. 12	N.W.	W.		45
18. 14	18. 14½	W.	S.W.		45
18. 15½	18. 17	S.W.	W.N.W.	67½	
18. 19	18. 21	W.N.W.	W.		22½
18. 23	18. 23½	W.	W.S.W.		22½
19. 15	19. 16	W.S.W.	S.W.		22½
20. 1	20. 3	S.W.	W.S.W.	22½	
20. 5	20. 7	W.S.W.	W.N.W.	45	
20. 20½	20. 21	W.N.W.	W.		22½
21. 2	21. 3	W.	S.W.		45
21. 12	21. 13	S.W.	S.S.W.		22½
21. 20	21. 21	S.S.W.	W.S.W.	45	
21. 22	21. 23	W.S.W.	W.N.W.	45	
22. 1	22. 1½	W.N.W.	W.		22½
22. 7	22. 8	W.	S.W.		45
22. 16½	22. 17	S.W.	S.S.W.		22½
22. 22½	22. 23	S.S.W.	S.S.E.		45
23. 1	23. 2	S.S.E.	N.E.		112½
23. 6	23. 8	N.E.	E.N.E.	22½	
23. 21	23. 22	E.N.E.	S.	112½	
24. 1½	24. 2	S.	S.S.W.	22½	
24. 6½	24. 7	S.S.W.	N.	157½	
24. 11	24. 12	N.	N.N.E.	22½	
24. 13	24. 14	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.
				°	°
Aug.—*cont.*					
d h	d h				
24. 16	24. 16¼	N.E.	E.N.E.	22½	
24. 20	24. 22	E.N.E.	N.E.		22½
25. 6	25. 7	N.E.	E.N.E.	22½	
25. 22	26. 0	E.N.E.	E.	22½	
26. 4½	26. 5	E.	S.E.	45	
26. 8	26. 10	S.E.	S.W.	90	
27. 5½	27. 5¾	S.W.	N.N.W.	112½	
27. 7	27. 8	N.N.W.	N.	22½	
27. 18½	27. 19½	N.	E.S.E.	112½	
27. 23	27. 23¼	E.S.E.	N.		112½
28. 7	28. 7½	N.	S.W.	225	
28. 9	28. 9½	S.W.	N.E.		180
28. 10½	28. 11	N.E.	S.	135	
28. 12	28. 13	S.	E.	270	
28. 16	28. 16¼	E.	S.E.	45	
28. 20¾	28. 21¼	S.E.	S.W.	90	
29. 0	29. 0¼	S.W.	N.	135	
29. 4	29. 6	N.	N.N.W.		22½
29. 9	29. 11	N.N.W.	N.	22½	
29. 21	29. 21¼	N.	N.N.E.	22½	
29. 23	30. 0½	N.N.E.	E.	67½	
30. 1½	30. 3	E.	S.W.	135	
30. 11	30. 11½	S.W.	S.E.		90
30. 14	30. 14½	S.E.	N.	225	
30. 18	30. 18½	N.	E.	90	
30. 20	30. 20½	E.	N.E.		45
30. 21	30. 21½	N.E.	S.E.	90	
31. 2	31. 2¼	S.E.	N.E.		90
31. 3¾	31. 4	N.E.	N.N.E.		22½
31. 13	31. 14	N.N.E.	W.S.W.		135
31. 18	31. 20	W.S.W.	N.	112½	
			Sums	4432½	2137½
September.					
1. 16	1. 18	N.	N.E.	45	
1. 21	1. 21½	N.E.	E.N.E.	22½	
2. 0	2. 1½	E.N.E.	E.	22½	
2. 3	2. 4¼	E.	N.N.E.		67½
2. 5¾	2. 6	N.N.E.	E.	67½	
2. 8¼	2. 9	E.	N.E.		45
2. 11½	2. 12½	N.E.	E.N.E.	22½	
2. 20	3. 0	E.N.E.	N.E.		22½
3. 3	3. 4	N.E.	N.N.E.		22½
3. 16	3. 17	N.N.E.	N.		22½
3. 22	3. 23	N.	N.N.W.		22½
4. 15	4. 17	N.N.W.	N.N.E.	45	
4. 18	4. 18½	N.N.E.	N.N.W.		45
4. 23	5. 0½	N.N.W.	S.W.		112½
5. 8½	5. 10	S.W.	N.W.	90	
5. 12½	5. 13	N.W.	N.N.W.	22½	
6. 4	6. 5	N.N.W.	W.		67½
6. 6	6. 6¼	W.	N.N.W.	67½	

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

Greenwich Civil Time. From	To	Change of Direction. From	To	Amount of Motion. Direct.	Retrograde.
				°	°
Sept.—*cont.*					
d h	d h				
6.23½	7.2	N.N.W.	S.S.W.		135
7.4	7.8	S.S.W.	W.S.W.	45	
7.12	7.14	W.S.W.	W.	22½	
7.18½	7.20	W.	W.S.W.		22½
7.22	8.0	W.S.W.	S.W.		22½
8.3	8.4	S.W.	S.S.W.		22½
8.5	8.6¼	S.S.W.	S.S.E.		45
8.7½	8.8½	S.S.E.	N.N.W.	180	
8.15	8.17	N.N.W.	N.W.		22½
9.0	9.2	N.W.	N.N.W.	22½	
9.7	9.11	N.N.W.	N.	22½	
10.20	10.20¼	N.	N.E.	45	
10.21½	10.22	N.E.	S.	135	
10.23	10.23½	S.	S.W.	45	
11.9	11.9½	S.W.	W.S.W.	22½	
11.16	11.16½	W.S.W.	W.N.W.	45	
11.17¾	11.18¼	W.N.W.	S.W.		67½
11.18¾	11.20	S.W.	W.	45	
11.22	11.23	W.	N.N.W.	67½	
12.1½	12.3¼	N.N.W.	S.S.W.		135
12.4¼	12.6	S.S.W.	N.	157½	
12.12	12.14	N.	N.E.	45	
12.15	12.16	N.E.	N.N.E.		22½
13.1	13.4	N.N.E.	N.		22½
13.7	13.11	N.	N.E.	45	
13.16	13.18	N.E.	N.N.E.		22½
13.23	14.0	N.N.E.	N.		22½
14.9	14.10	N.	N.N.E.	22½	
14.15	14.15½	N.N.E.	N.		22½
14.16½	14.17	N.	E.	90	
14.19	14.19½	E.	S.E.	45	
14.20	14.20¾	S.E.	N.E.		90
~~14.22~~	~~14.22½~~	N.E.	N.W.		90
15.0	15.0¼	N.W.	S.W.		90
15.1½	15.2	S.W.	W.	45	
15.6	15.8	W.	N.	90	
16.3	16.5	N.	N.N.E.	22½	
17.4½	17.10½	N.N.E.	N.E.	22½	
17.21	17.23	N.E.	N.N.E.		22½
18.9	18.11	N.N.E.	E.N.E.	45	
18.21	18.21½	E.N.E.	N.E.		22½
19.2	19.2½	N.E.	N.		45
19.4	19.4½	N.	N.E.	45	
19.6	19.6¼	N.E.	N.N.W.		67½
19.7½	19.7¾	N.N.W.	N.	22½	
19.9½	19.9¾	N.	N.E.	45	
19.11	19.12	N.E.	E.N.E.	22½	
19.13	19.13½	E.N.E.	W.S.W.		180
19.14½	19.15	W.S.W.	N.W.	67½	
19.16¼	19.17½	N.W.	N.N.E.	67½	
19.22¾	19.23	N.N.E.	N.W.		67½
20.0	20.1	N.W.	N.	45	
20.7½	20.8	N.	N.E.	45	
20.21½	20.22½	N.E.	N.N.E.		22½
21.9	21.11	N.N.E.	N.E.	22½	
21.13	21.14	N.E.	E.N.E.	22½	
22.8½	22.10	E.N.E.	E.	22½	
23.19	23.21	E.	S.E.	45	
23.22	23.23	S.E.	E.		45

Greenwich Civil Time. From	To	Change of Direction. From	To	Amount of Motion. Direct.	Retrograde.
				°	°
Sept.—*cont.*					
d h	d h				
24.3	24.4	E.	N.E.		45
24.5½	24.6	N.E.	E.N.E.	22½	
25.15	25.16½	E.N.E.	N.E.		22½
25.17½	25.18	N.E.	N.		45
28.0	28.1½	N.	N.N.W.		22½
28.5	28.5½	N.N.W.	N.W.		22½
28.8	28.9	N.W.	N.N.W.	22½	
28.23	29.2	N.N.W.	N.	22½	
30.11	30.12	N.	N.N.E.	22½	
			Sums	2295	1912½
October.					
1.0	1.0½	N.N.E.	N.		22½
1.8	1.10	N.	N.E.	45	
3.18	3.20½	N.E.	N.N.E.		22½
4.2½	4.3	N.N.E.	N.		22½
4.5	4.6	N.	N.N.W.		22½
4.10½	4.11½	N.N.W.	N.	22½	
5.3	5.4	N.	N.N.E.	22½	
5.12½	5.13	N.N.E.	N.E.	22½	
5.16	5.17	N.E.	N.N.E.		22½
5.20	5.23	N.N.E.	N.		22½
6.7	6.9	N.	N.N.E.	22½	
6.11	6.13	N.N.E.	E.N.E.	45	
6.14	6.15	E.N.E.	E.	22½	
6.18	6.19½	E.	E.N.E.		22½
6.23½	7.0	E.N.E.	E.	22½	
7.8	7.8½	E.	E.N.E.		22½
7.10	7.11	E.N.E.	E.	22½	
7.11¾	7.12	E.	E.S.E.	22½	
7.18	7.18½	E.S.E.	E.		22½
8.4	8.5	E.	S.	90	
8.6	8.6½	S.	N.	180	
8.9½	8.9¾	N.	E.S.E.		247½
8.11½	8.12½	E.S.E.	W.S.W.	135	
8.18	8.19	W.S.W.	N.	112½	
9.2	9.3½	N.	E.		270
9.10	9.11	E.	E.S.E.	22½	
9.13	9.14	E.S.E.	S.W.	112½	
9.21	9.22	S.W.	S.S.E.		67½
10.4	10.6	S.S.E.	S.S.W.	45	
10.12½	10.13	S.S.W.	S.W.	22½	
10.20	10.21	S.W.	W.S.W.	22½	
11.9	11.11	W.S.W.	N.	112½	
11.15	11.18	N.	E.	90	
12.14	12.14½	E.	E.S.E.	22½	
13.4	13.6	E.S.E.	S.	67½	
13.10	13.10¼	S.	W.S.W.	67½	
13.11¾	13.12	W.S.W.	W.	22½	
13.13	13.13¼	W.	N.N.W.	67½	
13.14	13.16	N.N.W.	W.S.W.		90
13.21	14.0	W.S.W.	N.W.	67½	
14.3	14.5	N.W.	N.	45	

Greenwich Civil Time. From	To	Change of Direction. From	To	Amount of Motion. Direct.	Retrograde.
				°	°
Oct.—*cont.*					
d h	d h				
14.12	14.15	N.	N.N.W.		22½
15.10	15.11	N.N.W.	N.	22½	
15.15½	15.16	N.	N.N.W.		22½
16.7	16.7½	N.N.W.	N.	22½	
16.18	16.19	N.	N.N.E.	22½	
16.20	16.20½	N.N.E.	N.		22½
17.0	17.3	N.	N.N.W.		22½
17.6	17.7	N.N.W.	S.W.		112½
17.9	17.11½	S.W.	N.	135	
17.14½	17.17	N.	N.E.	405	
17.20½	17.20¾	N.E.	S.S.E.	112½	
17.22½	17.23½	S.S.E.	S.S.W.	45	
18.2	18.3	S.S.W.	W.N.W.	90	
18.4¼	18.4½	W.N.W.	S.E.		157½
18.5½	18.6½	S.E.	S.S.W.		292½
18.8½	18.10	S.S.W.	N.	157½	
18.11	18.11½	N.	N.E.	45	
18.12½	18.13	N.E.	N.		45
18.20	18.20¼	N.	W.S.W.		112½
18.21	18.23	W.S.W.	N.N.W.	90	
19.6	19.9	N.N.W.	N.	22½	
19.12	19.13½	N.	N.E.	45	
19.23	19.23¼	N.E.	N.N.E.		22½
20.10	20.11	N.N.E.	N.E.	22½	
21.0	21.2	N.E.	S.S.W.	157½	
21.5	21.7	S.S.W.	S.W.	22½	
21.8½	21.10	S.W.	W.S.W.	22½	
21.13	21.16	W.S.W.	N.W.	67½	
21.18	21.21	N.W.	N.N.E.	67½	
22.3	22.4	N.N.E.	N.E.	22½	
23.5½	23.7	N.E.	E.	45	
23.12	23.12¼	E.	E.S.E.	22½	
23.19	23.21½	E.S.E.	S.S.E.	45	
24.3	24.5	S.S.E.	S.E.		22½
24.8	24.9	S.E.	S.S.E.	22½	
24.11½	24.13½	S.S.E.	S.S.W.	45	
24.16	24.17½	S.S.W.	S.W.	22½	
25.22	26.3	S.W.	W.S.W.	22½	
26.8	26.10	W.S.W.	S.W.		22½
26.13	26.16½	S.W.	S.		45
26.19	26.19½	S.	S.S.W.	22½	
26.21	26.23	S.S.W.	S.W.	22½	
27.0	27.1	S.W.	S.S.W.		22½
27.4	27.5	S.S.W.	S.W.	22½	
28.5	28.6	S.W.	W.S.W.	22½	
28.11	28.12	W.S.W.	S.W.		22½
28.18	28.20	S.W.	S.S.E.		67½
28.22½	29.1	S.S.E.	S.S.W.	45	
29.4	29.6	S.S.W.	S.W.	22½	
30.21	30.22	S.W.	E.S.E.		112½
30.23	31.0	E.S.E.	E.N.E.		45
31.2	31.2½	E.N.E.	E.	22½	
31.4	31.5	E.	E.S.E.	22½	
31.7	31.8	E.S.E.	S.	67½	
			Sums	3667½	2070

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.
November.				°	°
d h	d h				
1. 14	1. 16	S.	S.S.E.		22½
1. 20	2. 4	S.S.E.	S.S.W.	45	
2. 12	2. 15	S.S.W.	S.		22½
3. 4½	3. 6	S.	S.S.E.		22½
3. 16	3. 17	S.S.E.	S.S.W.	45	
4 7	4 8½	S.S.W.	S.W.	22½	
4 15	4 17	S.W.	S.		45
5. 11½	5. 16½	S.	S.W.	45	
6. 15	6. 17	S.W.	S.		45
6. 22	6. 22½	S.	S.S.E.		22½
7. 1	7. 2	S.S.E.	S.	22½	
7. 21	7. 23	S.	S.W.	45	
8. 8	8. 10	S.W.	W.S.W.	22½	
8. 21	8. 22	W.S.W.	S.W.		22½
9. 3	9. 5	S.W.	S.S.W.		22½
9. 7½	9. 8	S.S.W.	S.		22½
9. 19	9. 21	S.	S.W.	45	
10. 7	10. 8½	S.W.	W.S.W.	22½	
10. 13½	10. 15	W.S.W.	S.S.W.		45
10. 19	10. 21	S.S.W.	S.W.	22½	
11. 15	11. 15½	S.W.	S.S.W.		22½
11. 17	11. 17½	S.S.W.	S.		22½
11. 20	11. 22	S.	S.E.		45
11. 23	12. 0	S.E.	S.W.	90	
12. 5½	12. 8	S.W.	E.S.E.		112½
12. 9½	12. 10	E.S.E.	S.	67½	
12. 12	12. 14	S.	S.S.E.		22½
12. 16	12. 20	S.S.E.	N.W.		202½
12. 23	13. 1	N.W.	W.S.W.		67½
13. 14	13. 18	W.S.W.	S.		67½
14. 16	14. 16½	S.	S.W.	45	
14. 20	14. 23	S.W.	S.		45
15. 3	15. 4	S.	N.E.		135
15. 6	15. 6¼	N.E.	N.N.W.		67½
15. 9	15. 10	N.N.W.	W.N.W.		45
15. 11	15. 12	W.N.W.	S.S.W.		90
15. 16	15. 18	S.S.W.	S.		22½
15. 23	15. 23½	S.	S.S.E.		22½
16. 5	16. 6	S.S.E.	S.	22½	
16. 22	16. 23	S.	S.S.E.		22½
17. 14	17. 18	S.S.E.	E.S.E.		45
17. 19½	17. 21	E.S.E.	E.N.E.		45
17. 23½	18. 1	E.N.E.	E.	22½	
18. 3	18. 4	E.	E.S.E.	22½	
18. 5	18. 6	E.S.E.	S.E.	22½	
18. 7	18. 9	S.E.	S.	45	
18. 17	18. 17½	S.	S.E.		45
18. 19	18. 20	S.E.	S.S.E.	22½	
19. 8	19. 8½	S.S.E.	N.N.E.		135
19. 9	19. 11	N.N.E.	S.	157½	
19. 14	19. 16	S.	S.W.	45	
19. 19½	19. 20½	S.W.	S.S.W.		22½
20. 1	20. 2	S.S.W.	S.		22½
20. 4	20. 6	S.	S.S.W.	22½	
20. 22	20. 23	S.S.W.	N.W.	112½	
21. 6¾	21. 8	N.W.	S.W.		90
21. 12½	21. 13	S.W.	S.S.W.		22½
21. 16	21. 18	S.S.W.	S.S.E.		45
22. 11½	22. 13	S.S.E.	S.S.W.	45	
22. 15½	22. 16	S.S.W.	S.S.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.
Nov.—*cont.*				°	°
d h	d h				
22. 18½	22. 19½	S.S.E.	S.W.	67½	
22. 21¾	22. 23	S.W.	S.E.		90
23. 1½	23. 2½	S.E.	E.N.E.		67½
23. 4½	23. 5¼	E.N.E.	S.E.	67½	
23. 6	23. 6¾	S.E.	N.N.W.		157½
23. 9	23. 11½	N.N.W.	E.N.E.	90	
23. 13	23. 13½	E.N.E.	N.N.E.		45
23. 15	23. 16	N.N.E.	E.N.E.	45	
23. 17	23. 18	E.N.E.	N.E.		22½
24. 10	24. 11	N.E.	E.N.E.	22½	
24. 22½	24. 23	E.N.E.	E.	22½	
25. 12	25. 13	E.	E.N.E.		22½
26. 5½	26. 6½	E.N.E.	N.E.		22½
26. 13½	26. 14	N.E.	N.N.E.		22½
27. 8	27. 12	N.N.E.	N.E.	22½	
27. 22½	27. 23	N.E.	N.N.E.		22½
28. 2	28. 4	N.N.E.	N.		22½
29. 2	29. 3	N.	S.W.		135
29. 11	29. 11¼	S.W.	N.W.	90	
29. 15	29. 16	N.W.	N.N.W.	22½	
			Sums	1530	2452½

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
December.					
1. 11	1. 11¼	N.N.W.	N.N.E.	45	
1. 12½	1. 13½	N.N.E.	S.W.		157½
1. 18	1. 21½	S.W.	N.E.		180
2. 12½	2. 13½	N.E.	E.N.E.	22½	
2. 17½	2. 18½	E.N.E.	E.	22½	
3. 0½	3. 4	E.	E.N.E.		22½
3. 12½	3. 13	E.N.E.	N.E.		22½
4. 15	4. 16	N.E.	E.N.E.	22½	
4. 21	4. 22½	E.N.E.	N.N.E.		45
5. 3½	5. 4	N.N.E.	N.N.W.		45
5. 20½	5. 20¾	N.N.W.	W.S.W.		90
5. 22	5. 22½	W.S.W.	S.W.		22½
6. 4	6. 4½	S.W.	S.S.W.		22½
6. 18½	6. 18¾	S.S.W.	S.		22½
6. 22	7. 0	S.	S.E.		45
7. 2	7. 3	S.E.	E.S.E.		22½
7. 5	7. 7	E.S.E.	S.	67½	
7. 11½	7. 12	S.	S.S.W.	22½	
8. 1½	8. 2	S.S.W.	S.W.	22½	
8. 4	8. 6	S.W.	W.N.W.	67½	
8. 8	8. 9½	W.N.W.	N.N.W.	45	
9. 2½	9. 3	N.N.W.	N.N.E.	45	
9. 4	9. 4½	N.N.E.	E.	67½	
9. 7½	9. 8	E.	E.S.E.	22½	
9. 15½	9. 16	E.S.E.	S.E.	22½	
9. 19	9. 19½	S.E.	S.S.E.	22½	
10. 0½	10. 3	S.S.E.	S.	22½	
10. 8	10. 9	S.	S.S.E.		22½
10. 10	10. 11½	S.S.E.	S.	22½	
10. 17½	10. 19	S.	S.S.E.		22½
12. 1½	12. 5	S.S.E.	S.S.W.	45	
12. 8½	12. 11	S.S.W.	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. 15	12. 17	W.S.W.	S.S.W.		45
14. 6	14. 8	S.S.W.	S.W.	22½	
14. 13½	14. 14	S.W.	N.	135	
14. 16½	14. 17	N.	E.	90	
14. 19	14. 20	E.	S.W.	135	
14. 21	14. 21½	S.W.	N.	135	
14. 23	14. 23½	N.	N.W.		45
15. 1	15. 2½	N.W.	S.W.		90
15. 4	15. 5	S.W.	W.S.W.	22½	
15. 9½	15. 11	W.S.W.	W.	22½	
15. 17	15. 19	W.	W.S.W.		22½
15. 22	16. 0½	W.S.W.	S.W.		22½
16. 6	16. 11	S.W.	W.N.W.	67½	
16. 12	16. 14	W.N.W.	N.N.W.	45	
17. 1	17. 2	N.N.W.	S.	202½	
17. 11	17. 12	S.	S.S.W.	22½	
18. 10¾	18. 11	S.S.W.	W.S.W.	45	
18. 15	18. 16½	W.S.W.	S.W.		22½
19. 7	19. 8½	S.W.	W.S.W.	22½	
19. 11	19. 12	W.S.W.	W.	22½	
19. 17½	19. 21	W.	N.W.	45	
20. 9	20. 11	N.W.	N.N.W.	22½	
21. 0	21. 1½	N.N.W.	W.		67½
21. 3½	21. 4½	W.	S.W.		45
22. 5½	22. 6½	S.W.	W.S.W.	22½	
22. 14	22. 14½	W.S.W.	W.	22½	
22. 16½	22. 17½	W.	W.N.W.	22½	
22. 21	22. 22	W.N.W.	W.		22½
23. 3	23. 5	W.	W.S.W.		22½
23. 15	23. 16½	W.S.W.	S.		67½
23. 17½	23. 18	S.	S.S.W.	22½	
24. 1	24. 3	S.S.W.	S.		22½
24. 10	24. 12½	S.	S.W.	45	
24. 18	24. 18½	S.W.	W.S.W.	22½	
25. 2	25. 2½	W.S.W.	N.W.	67½	
25. 8	25. 9	N.W.	N.N.W.	22½	
25. 11	25. 11¼	N.N.W.	S.W.		112½
25. 12½	25. 12¾	S.W.	S.		45
25. 13¾	25. 14	S.	E.		90
25. 15½	25. 15¾	E.	S.	90	
25. 18	25. 19	S.	S.W.	45	
25. 21	25. 21½	S.W.	W.	45	
25. 23	26. 0	W.	S.W.		45
26. 10	26. 13	S.W.	N.W.	90	
26. 15½	26. 16½	N.W.	W.		45
26. 19	26. 20	W.	N.W.	45	
26. 21	26. 22	N.W.	N.	45	
27. 12	27. 16	N.	N.N.W.		22½
28. 0	28. 2½	N.N.W.	S.W.		112½
28. 15	28. 18	S.W.	W.S.W.	22½	
29. 1	29. 2	W.S.W.	W.	22½	
29. 5	29. 6	W.	W.S.W.		22½
29. 10½	29. 11	W.S.W.	W.	22½	
29. 17	29. 19	W.	W.N.W.	22½	
30. 9	30. 11	W.N.W.	N.W.	22½	
30. 13½	30. 15	N.W.	N.N.W.	22½	
31. 9½	31. 10	N.N.W.	N.	22½	
31. 11	31. 12	N.	N.N.W.		22½
			Sums	2475	1755

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

EXCESS of MOTION in each MONTH.

1894.	Direct. °	Retrograde. °	1894.	Direct. °	Retrograde. °
January	180		July		562½
February		202½	August	2295	
March		337½	September	382½	
April	877½		October	1597½	
May		180	November		922½
June	945		December	720	

The whole excess of direct motion for the year was 4792½°.

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	1894.												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	15·7	17·2	11·9	6·5	10·5	8·7	9·5	9·6	7·0	10·0	13·3	12·3	11·0
2	15·0	16·5	11·5	6·8	11·3	9·1	8·5	10·2	7·1	9·4	13·1	12·4	10·9
3	14·5	16·5	11·6	6·6	10·8	9·0	8·6	9·7	7·6	9·4	12·6	12·9	10·8
4	14·1	16·1	11·4	6·6	11·3	9·7	7·9	9·3	7·3	9·0	12·4	13·5	10·7
5	14·2	15·3	11·5	6·7	11·5	9·4	8·0	9·0	7·4	9·3	12·3	13·7	10·7
6	14·7	15·0	12·2	6·9	12·4	9·8	8·1	9·2	7·9	9·4	12·0	13·5	10·9
7	13·7	15·6	12·1	7·6	12·6	10·6	8·7	9·9	8·1	9·6	11·4	13·1	11·1
8	13·7	15·9	12·9	7·8	14·1	11·0	9·1	10·7	8·3	9·7	11·9	12·7	11·5
9	13·8	15·3	13·1	8·9	15·7	11·5	9·8	11·2	9·2	10·8	12·5	13·5	12·1
10	15·3	16·2	13·8	10·2	16·6	12·9	10·8	12·6	10·6	11·3	13·8	13·5	13·1
11	16·2	18·6	15·1	11·5	17·2	13·3	11·7	13·5	11·6	12·2	14·8	14·5	14·2
Noon.	17·5	20·5	16·9	11·7	17·3	13·8	11·7	13·2	11·7	12·0	14·7	13·9	14·6
h 13	17·0	20·4	17·3	12·2	17·0	14·1	12·2	13·6	11·6	13·1	14·8	14·0	14·8
14	17·1	20·9	17·5	13·3	17·3	14·4	13·3	14·5	12·2	13·3	15·6	16·4	15·5
15	16·5	19·9	16·7	13·9	16·5	14·0	13·7	14·4	11·7	13·1	14·5	14·9	15·0
16	15·9	19·8	16·1	13·2	15·3	13·6	13·7	13·5	11·5	12·5	12·7	13·2	14·3
17	16·0	19·6	15·1	12·7	15·9	13·6	13·5	13·3	10·9	11·6	12·0	13·2	14·0
18	16·5	18·7	14·3	12·3	15·1	12·9	13·6	12·9	10·3	11·6	12·2	13·5	13·7
19	16·9	17·8	12·7	10·8	13·9	12·7	12·1	12·7	9·1	10·9	11·9	13·5	12·9
20	16·2	17·9	11·9	9·4	12·2	11·2	11·0	10·8	9·0	10·5	12·1	13·5	12·1
21	16·3	17·6	12·1	9·0	11·2	10·1	10·3	10·9	8·3	10·5	12·7	13·8	11·9
22	16·8	17·9	12·2	8·5	11·0	9·7	9·1	10·9	7·7	9·9	12·8	13·6	11·7
23	17·0	17·8	11·7	7·7	10·8	9·1	9·5	10·5	7·7	10·2	12·5	13·6	11·5
Midnight.	16·2	17·2	11·3	7·3	10·2	8·9	9·6	9·8	7·2	10·6	12·4	13·2	11·2
Means	15·7	17·7	13·5	9·5	13·7	11·4	10·6	11·5	9·2	10·8	13·0	13·6	12·5
Greatest Hourly Measures	45	51	41	37	31	30	29	31	30	37	46	50	...
Least Hourly Measures	0	1	0	1	0	0	1	0	0	0	1	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.)

1894.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	+1081	+ 574	+ 382	+ 529	+ 648	+ 347	+ 320	+ 330	+ 631	+ 722	+ 422	+1224
2	+ 923	+ 506	+ 954	+ 351	+ 469	...	+ 386	+ 210	+ 408	+ 614	+ 161	+ 770
3	+ 490	+ 567	+1122	+ 609	+ 473	+ 486	+ 507	+ 457	+ 459	+ 547	+ 178	+ 730
4	− 502	+ 910	+ 955	+ 671	+ 486	+ 378	+ 546	+ 365	+ 812	+ 708	+ 432	+1097
5	...	− 297	+ 919	+ 486	...	+ 333	+ 438	+ 421	+ 628	+ 577	+ 326	+ 997
6	...	+ 415	+ 673	+ 442	+ 353	+ 64	+ 161	+ 337	+ 879	+ 468	+ 720	+1154
7	...	+ 281	+ 873	+ 583	+ 335	+ 551	+ 199	+ 391	+ 726	+ 392	+ 83	+ 474
8	...	+ 762	+ 634	+ 673	+ 405	+ 650	+ 342	+ 371	+ 512	+ 413	+ 679	+ 972
9	+ 157	+ 741	+ 508	+ 694	+ 189	+ 267	+ 323	+ 447	+ 380	+ 428	+ 521	+1385
10	+ 197	+ 716	+ 619	+ 727	+ 23	+ 327	+ 221	+ 387	...	+ 318	+ 561	+ 548
11	+ 240	+ 367	+ 554	+ 499	+ 320	+ 250	+ 465	+ 740	+ 280	+ 378	+ 495	+ 728
12	+ 288	+ 641	+ 48	+ 305	+ 383	+ 380	+ 462	+ 477	...	+ 496	− 311	+ 627
13	+ 166	+1000	+ 575	+ 242	+ 503	+ 630	+ 390	+ 599	+ 689	+ 286	+ 642	+ 543
14	+ 15	+ 966	+ 506	+ 373	+ 434	+ 463	+ 530	+ 300	+ 481	+ 569	+ 93	+ 163
15	+ 172	+ 482	+ 464	+ 298	+ 366	+ 399	+ 467	+ 286	+ 385	+ 914	+ 480	+ 896
16	+ 437	+ 736	+1106	+ 135	+ 375	+ 376	+ 386	+ 465	+ 219	+1085	+ 358	+ 491
17	+ 291	−1222	+1045	+ 485	+ 458	+ 442	+ 479	+ 793	+ 273	+1088	+ 515	+ 580
18	+ 513	+ 682	+ 731	+ 742	+ 439	+ 337	+ 515	+ 741	+ 269	+ 713	+ 661	+ 528
19	+ 394	+ 805	+ 571	+ 690	+ 651	+ 509	+ 431	+ 658	+ 417	+ 849	+ 553	+ 629
20	+ 520	+ 914	+ 648	+ 488	+ 750	+ 134	+ 463	+ 623	+ 236	+ 510	+ 513	+1131
21	+ 734	+1010	+ 685	+ 608	+ 702	+ 430	+ 368	+ 632	+ 157	+ 477	+1042	+ 729
22	− 341	+1034	+ 602	+ 621	+ 576	+ 291	+ 550	+ 630	+ 286	+ 609	+ 780	+ 638
23	+1004	+ 690	+ 553	+ 386	+ 405	+ 282	...	+ 130	+ 126	+ 502	+ 843	+1176
24	+ 980	+ 579	+ 566	+ 340	+ 397	+ 189	+ 288	+ 293	+ 178	+ 155	+ 826	+ 325
25	+ 275	+ 528	+ 820	+ 122	+ 571	...	+ 420	+ 138	+ 77	+ 407	+ 785	+ 435
26	+ 445	+ 458	+ 860	+ 447	+ 456	+ 475	+ 406	...	+ 430	+ 261	+ 738	+ 550
27	+ 167	+ 720	+ 943	+ 416	+ 241	+ 524	+ 650	+ 481	+ 845	+ 322	+ 849	+1098
28	+ 678	+ 537	+ 671	+ 396	+ 210	+ 410	+ 697	+ 423	...	+ 429	+1380	+1111
29	+ 775		+ 627	+ 257	+ 199	+ 506	+ 374	+ 662	+1090	+ 375	+ 946	+ 645
30	+ 667		+ 647	− 6	− 35	+ 332	+ 431	+ 452	+ 727	+ 22	+1319	+1093
31	+ 440		+ 683		+ 355		+ 224	+ 368		+ 320		+1326
Means ...	+ 415	+ 575	+ 695	+ 454	+ 405	+ 384	+ 415	+ 454	+ 467	+ 515	+ 586	+ 800

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.	1894.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight.	+ 357	+ 531	+ 653	+ 655	+ 595	+ 459	+ 497	+ 470	+ 479	+ 485	+ 507	+ 786	+ 540
$1^{h.}$	+ 238	+ 555	+ 695	+ 632	+ 482	+ 485	+ 526	+ 439	+ 416	+ 477	+ 513	+ 764	+ 518
2	+ 216	+ 554	+ 691	+ 511	+ 437	+ 457	+ 403	+ 442	+ 379	+ 496	+ 508	+ 611	+ 475
3	+ 207	+ 506	+ 620	+ 543	+ 470	+ 447	+ 324	+ 429	+ 358	+ 331	+ 459	+ 526	+ 435
4	+ 227	+ 500	+ 613	+ 543	+ 505	+ 456	+ 329	+ 428	+ 350	+ 410	+ 445	+ 624	+ 453
5	+ 237	+ 527	+ 605	+ 485	+ 504	+ 424	+ 417	+ 411	+ 327	+ 386	+ 417	+ 629	+ 447
6	+ 203	+ 534	+ 672	+ 473	+ 530	+ 448	+ 461	+ 467	+ 304	+ 416	+ 402	+ 714	+ 469
7	+ 347	+ 541	+ 723	+ 426	+ 518	+ 484	+ 511	+ 504	+ 324	+ 400	+ 487	+ 819	+ 507
8	+ 379	+ 607	+ 670	+ 308	+ 492	+ 542	+ 514	+ 517	+ 364	+ 372	+ 476	+ 794	+ 503
9	+ 411	+ 539	+ 711	+ 325	+ 402	+ 409	+ 452	+ 435	+ 406	+ 379	+ 513	+ 827	+ 484
10	+ 353	+ 555	+ 764	+ 292	+ 382	+ 313	+ 420	+ 481	+ 474	+ 409	+ 572	+ 878	+ 491
11	+ 436	+ 566	+ 711	+ 292	+ 315	+ 244	+ 264	+ 410	+ 472	+ 506	+ 631	+ 839	+ 474
Noon.	+ 486	+ 590	+ 687	+ 414	+ 337	+ 345	+ 405	+ 448	+ 493	+ 525	+ 703	+ 882	+ 526
13^{h}	+ 487	+ 519	+ 710	+ 336	+ 200	+ 317	+ 351	+ 454	+ 515	+ 559	+ 716	+ 885	+ 504
14	+ 514	+ 566	+ 673	+ 399	+ 316	+ 214	+ 368	+ 361	+ 490	+ 589	+ 710	+ 896	+ 508
15	+ 464	+ 638	+ 736	+ 252	+ 197	+ 282	+ 398	+ 376	+ 380	+ 646	+ 731	+ 892	+ 499
16	+ 548	+ 589	+ 733	+ 293	+ 16	+ 221	+ 382	+ 351	+ 569	+ 697	+ 712	+ 925	+ 503
17	+ 558	+ 505	+ 714	+ 435	+ 324	+ 283	+ 333	+ 461	+ 621	+ 636	+ 667	+ 965	+ 542
18	+ 551	+ 581	+ 586	+ 425	+ 417	+ 305	+ 377	+ 413	+ 612	+ 669	+ 725	+ 933	+ 549
19	+ 604	+ 648	+ 758	+ 468	+ 157	+ 309	+ 412	+ 504	+ 567	+ 657	+ 708	+ 889	+ 557
20	+ 605	+ 639	+ 818	+ 474	+ 497	+ 478	+ 406	+ 463	+ 548	+ 601	+ 639	+ 776	+ 579
21	+ 574	+ 618	+ 780	+ 615	+ 388	+ 456	+ 495	+ 561	+ 600	+ 586	+ 640	+ 790	+ 592
22	+ 534	+ 703	+ 702	+ 653	+ 554	+ 418	+ 507	+ 542	+ 599	+ 595	+ 634	+ 789	+ 602
23	+ 425	+ 692	+ 657	+ 636	+ 674	+ 429	+ 399	+ 519	+ 554	+ 525	+ 557	+ 761	+ 569
24	+ 335	+ 539	+ 648	+ 646	+ 597	+ 414	+ 490	+ 470	+ 462	+ 462	+ 547	+ 773	+ 532
Means $0^{h.}$–$23^{h.}$	+ 415	+ 575	+ 695	+ 454	+ 405	+ 384	+ 415	+ 454	+ 467	+ 515	+ 586	+ 800	+ 514
Means $1^{h.}$–$24^{h.}$	+ 414	+ 575	+ 695	+ 453	+ 405	+ 382	+ 414	+ 454	+ 466	+ 514	+ 588	+ 799	+ 513
Number of Days employed.	27	28	31	30	30	28	30	30	27	31	30	31	...

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

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

Hour, Greenwich Civil Time.	1894. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
Midnight.	+ 155	+ 295	+ 250	+ 596	+ 611	+ 425	+ 439	+ 479	+ 343	+ 320	+ 277	+ 705	+ 408
1h.	− 75	+ 445	+ 460	+ 537	+ 433	+ 505	+ 531	+ 414	+ 303	+ 286	+ 319	+ 636	+ 399
2	− 91	+ 445	+ 393	+ 214	+ 381	+ 498	+ 302	+ 397	+ 170	+ 331	+ 331	+ 379	+ 313
3	− 5	+ 329	+ 197	+ 401	+ 456	+ 466	+ 183	+ 349	+ 90	+ 46	+ 270	+ 152	+ 244
4	+ 29	+ 289	+ 259	+ 451	+ 508	+ 417	+ 225	+ 331	+ 120	+ 249	+ 265	+ 352	+ 291
5	+ 19	+ 371	+ 234	+ 445	+ 512	+ 372	+ 378	+ 325	+ 142	+ 171	+ 168	+ 338	+ 290
6	+ 94	+ 389	+ 421	+ 444	+ 557	+ 415	+ 419	+ 369	+ 118	+ 253	+ 102	+ 415	+ 333
7	+ 222	+ 317	+ 571	− 9	+ 501	+ 390	+ 455	+ 417	+ 111	+ 275	+ 231	+ 570	+ 338
8	+ 272	+ 441	+ 470	− 279	+ 483	+ 519	+ 453	+ 470	+ 161	+ 287	+ 239	+ 465	+ 332
9	+ 284	+ 298	+ 673	+ 139	+ 301	+ 305	+ 377	+ 295	+ 224	+ 256	+ 310	+ 560	+ 335
10	+ 128	+ 288	+ 796	+ 251	+ 292	+ 140	+ 386	+ 328	+ 324	+ 207	+ 414	+ 626	+ 348
11	+ 227	+ 299	+ 677	+ 21	+ 267	+ 59	+ 172	+ 260	+ 212	+ 395	+ 512	+ 525	+ 302
Noon.	+ 259	+ 320	+ 544	+ 262	+ 322	+ 284	+ 374	+ 450	+ 202	+ 342	+ 498	+ 652	+ 376
13h.	+ 256	+ 155	+ 569	+ 19	+ 49	+ 245	+ 319	+ 483	+ 142	+ 406	+ 503	+ 655	+ 317
14	+ 357	+ 288	+ 376	+ 415	+ 308	+ 13	+ 378	+ 302	+ 223	+ 469	+ 464	+ 721	+ 359
15	+ 343	+ 446	+ 649	+ 36	+ 102	+ 219	+ 356	+ 308	+ 257	+ 531	+ 480	+ 782	+ 376
16	+ 481	+ 245	+ 640	+ 196	− 288	+ 13	+ 361	+ 232	+ 344	+ 585	+ 450	+ 827	+ 341
17	+ 443	− 1	+ 786	+ 390	+ 259	+ 186	+ 309	+ 473	+ 478	+ 463	+ 317	+ 875	+ 415
18	+ 465	+ 126	− 9	+ 331	+ 367	+ 187	+ 331	+ 348	+ 489	+ 511	+ 431	+ 795	+ 364
19	+ 563	+ 228	+ 593	+ 153	− 203	+ 109	+ 401	+ 423	+ 470	+ 531	+ 450	+ 666	+ 365
20	+ 586	+ 244	+ 633	+ 131	+ 431	+ 464	+ 393	+ 292	+ 468	+ 490	+ 332	+ 457	+ 410
21	+ 555	+ 239	+ 359	+ 436	+ 193	+ 367	+ 498	+ 510	+ 522	+ 503	+ 364	+ 598	+ 429
22	+ 501	+ 500	+ 463	+ 591	+ 447	+ 245	+ 464	+ 517	+ 536	+ 539	+ 358	+ 592	+ 479
23	+ 349	+ 521	+ 253	+ 606	+ 696	+ 266	+ 286	+ 442	+ 497	+ 496	+ 252	+ 606	+ 439
24	+ 247	+ 282	+ 373	+ 600	+ 567	+ 260	+ 497	+ 408	+ 427	+ 390	+ 328	+ 648	+ 419
Means 0h.–23h.	+ 267	+ 313	+ 469	+ 282	+ 333	+ 296	+ 366	+ 384	+ 289	+ 373	+ 347	+ 581	+ 358
Means 1h.–24h.	+ 271	+ 313	+ 474	+ 283	+ 331	+ 289	+ 369	+ 381	+ 293	+ 375	+ 349	+ 579	+ 359
Number of Days employed.	15	11	7	8	16	11	16	13	9	15	15	13	...

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.	1894.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight.	+ 677	+ 742	+ 779	+ 709	+ 580	+ 503	+ 610	+ 488	+ 537	+ 654	+ 835	+ 830	+ 662
1h.	+ 648	+ 689	+ 787	+ 679	+ 542	+ 488	+ 570	+ 471	+ 473	+ 637	+ 781	+ 844	+ 634
2	+ 662	+ 686	+ 802	+ 631	+ 511	+ 438	+ 557	+ 471	+ 496	+ 661	+ 765	+ 759	+ 620
3	+ 670	+ 679	+ 743	+ 627	+ 499	+ 438	+ 556	+ 481	+ 509	+ 641	+ 735	+ 777	+ 613
4	+ 657	+ 708	+ 698	+ 636	+ 514	+ 472	+ 522	+ 536	+ 492	+ 612	+ 710	+ 782	+ 612
5	+ 603	+ 705	+ 705	+ 600	+ 505	+ 449	+ 551	+ 488	+ 441	+ 620	+ 747	+ 799	+ 601
6	+ 593	+ 698	+ 733	+ 520	+ 511	+ 488	+ 581	+ 540	+ 437	+ 611	+ 807	+ 903	+ 618
7	+ 653	+ 762	+ 751	+ 622	+ 541	+ 575	+ 606	+ 564	+ 479	+ 559	+ 835	+ 987	+ 661
8	+ 673	+ 794	+ 725	+ 562	+ 514	+ 563	+ 597	+ 500	+ 508	+ 476	+ 795	+ 1018	+ 644
9	+ 718	+ 784	+ 723	+ 516	+ 545	+ 460	+ 559	+ 538	+ 513	+ 479	+ 792	+ 1019	+ 637
10	+ 755	+ 822	+ 742	+ 466	+ 501	+ 382	+ 453	+ 688	+ 568	+ 572	+ 778	+ 1056	+ 649
11	+ 823	+ 849	+ 734	+ 455	+ 382	+ 332	+ 369	+ 631	+ 642	+ 614	+ 799	+ 1030	+ 638
Noon.	+ 915	+ 872	+ 749	+ 503	+ 367	+ 322	+ 426	+ 561	+ 653	+ 728	+ 1005	+ 1008	+ 676
13h.	+ 930	+ 842	+ 743	+ 505	+ 372	+ 287	+ 390	+ 540	+ 678	+ 781	+ 1021	+ 1016	+ 675
14	+ 832	+ 825	+ 767	+ 454	+ 323	+ 245	+ 344	+ 483	+ 675	+ 833	+ 1062	+ 1004	+ 654
15	+ 638	+ 838	+ 785	+ 334	+ 305	+ 237	+ 356	+ 499	+ 388	+ 876	+ 1081	+ 962	+ 608
16	+ 657	+ 849	+ 777	+ 388	+ 357	+ 275	+ 323	+ 524	+ 685	+ 882	+ 1065	+ 987	+ 647
17	+ 815	+ 843	+ 702	+ 484	+ 398	+ 268	+ 281	+ 558	+ 687	+ 1027	+ 1110	+ 1034	+ 684
18	+ 768	+ 890	+ 844	+ 425	+ 484	+ 306	+ 339	+ 483	+ 650	+ 1010	+ 1088	+ 1055	+ 695
19	+ 723	+ 945	+ 912	+ 624	+ 581	+ 386	+ 320	+ 609	+ 732	+ 886	+ 1036	+ 1076	+ 736
20	+ 652	+ 922	+ 927	+ 661	+ 589	+ 482	+ 351	+ 669	+ 730	+ 817	+ 1033	+ 1034	+ 739
21	+ 592	+ 882	+ 942	+ 741	+ 623	+ 526	+ 454	+ 670	+ 672	+ 767	+ 996	+ 938	+ 734
22	+ 530	+ 852	+ 785	+ 773	+ 680	+ 545	+ 568	+ 651	+ 671	+ 722	+ 1005	+ 922	+ 725
23	+ 497	+ 828	+ 825	+ 761	+ 645	+ 487	+ 563	+ 636	+ 610	+ 610	+ 985	+ 892	+ 695
24	+ 430	+ 713	+ 781	+ 734	+ 618	+ 422	+ 539	+ 589	+ 518	+ 567	+ 882	+ 887	+ 640
Means 0h.–23h.	+ 695	+ 804	+ 778	+ 570	+ 495	+ 415	+ 469	+ 553	+ 580	+ 711	+ 911	+ 947	+ 661
Means 1h.–24h.	+ 685	+ 803	+ 778	+ 571	+ 496	+ 411	+ 466	+ 557	+ 579	+ 708	+ 913	+ 950	+ 660
Number of Days employed.	6	13	19	14	13	13	9	9	13	10	11	16	...

AMOUNT of RAIN COLLECTED in each MONTH of the YEAR 1894.

MONTH, 1894.		Number of Rainy Days.	Monthly Amount of Rain collected in each Gauge.							
			Self-registering Gauge of Osler's Anemometer.	Second Gauge at Osler's Anemometer.	On the roof of the Octagon Room.	On the roof of the Magnetic Observatory.	On the roof of the Photographic Thermometer Shed.	Gauges partly sunk in the ground.		
			No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.
			in.	in.	in.	in.	in.	in.	in.	in.
January		21	1·946	1·861	2·374	2·750	2·879	3·093	3·071	3·128
February		13	1·094	1·041	1·365	1·421	1·553	1·590	1·607	1·636
March		12	0·252	0·245	0·496	0·582	0·706	0·724	0·738	0·745
April		13	1·106	0·970	1·241	1·361	1·408	1·442	1·436	1·449
May		17	0·888	0·787	1·209	1·433	1·536	1·520	1·502	1·549
June		14	1·599	1·481	1·748	1·958	2·065	2·042	2·029	2·064
July		22	2·428	2·325	2·838	3·177	3·258	3·259	3·225	3·286
August		17	2·469	2·371	2·649	2·944	2·995	3·033	2·996	3·049
September		13	0·890	0·915	1·086	1·277	1·322	1·248	1·258	1·281
October		18	2·980	2·797	3·462	3·634	3·861	3·986	3·983	4·057
November		17	2·031	1·907	2·445	2·642	2·969	3·001	3·002	3·059
December		15	1·141	1·133	1·575	1·681	1·883	1·953	1·918	2·012
Sums		192	18·824	17·833	22·488	24·860	26·435	26·891	26·765	27·315
Height of receiving Surface	above the ground	...	ft. in. 50. 8	ft. in. 50. 8	ft. in. 38. 4	ft. in. 21. 6	ft. in. 10. 0	ft. in. 0. 5	ft. in. 0. 5	ft. in. 0. 5
	above mean sea level	...	ft. in. 205. 6	ft. in. 205. 6	ft. in. 193. 2	ft. in. 176. 4	ft. in. 164. 10	ft. in. 155. 3	ft. in. 155. 3	ft. in. 155. 3

ROYAL OBSERVATORY, GREENWICH.

OBSERVATIONS

OF

LUMINOUS METEORS.

1894.

OBSERVATIONS of

Month and Day, 1894.	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		°	
April 26	21. 36. 33	B.	3	White	0·6	None	10	1
August 9	23. 8. 0	C.	2	Bluish-white	0·5	None	20	2
August 9	23. 12. 0	C.	1	Bluish-white	0·5	Brilliant	25	3

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

LUMINOUS METEORS.

No. for Reference.	Path of Meteor through the Stars.
1	From midway between α Draconis and β Ursæ Minoris towards o Ursæ Minoris.
2	From α Arietis fell nearly vertically downwards.
3	From about midway between o Andromedæ and β Pegasi moved rapidly towards, and disappeared a little to the South of γ Pegasi.